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## Independent Study Course for Child Caregivers

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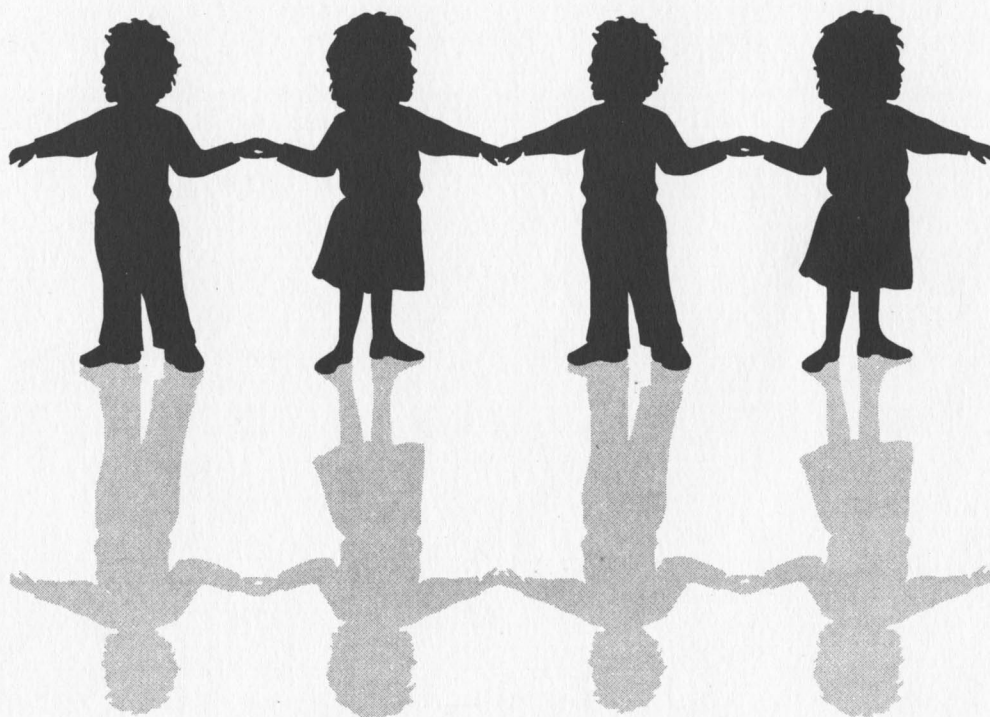
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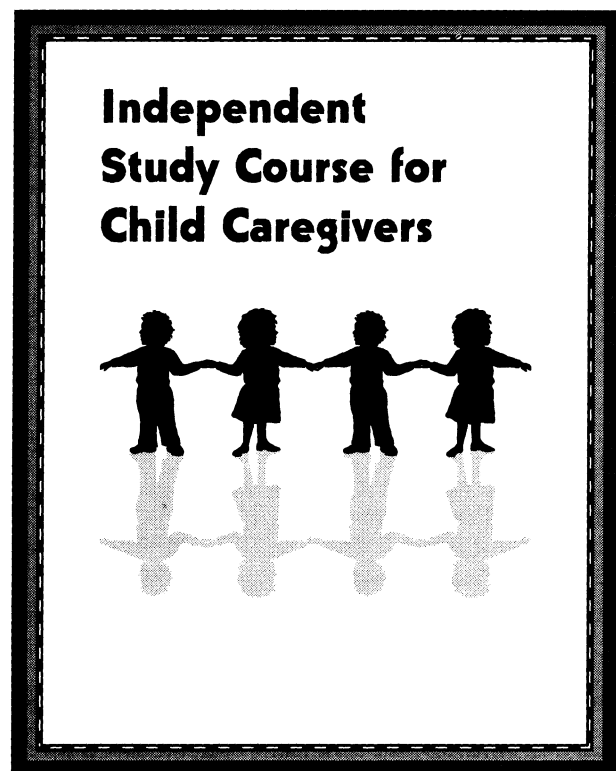
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# **Independent Study Course for Child Caregivers**



# **Independent Study Course for Child Caregivers**

**Darlene Martin, Ph.D., R.D., C.F.C.S**  
**Editor and Project Coordinator**



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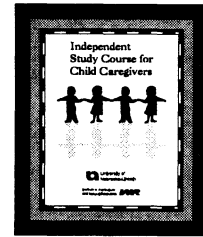
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# Contents



## Introduction

## Chapters:

●Nutrition	Section 1
●Food preparation and the USDA meal pattern requirements	Section 2
●Mealtime behavior: The feeding relationship	Section 3
●Food safety	Section 4
●The caregiver	Section 5
●Establishing and maintaining a healthy learning environment	Section 6
●Establishing and maintaining a safe learning environment	Section 7
●How children ages three to five grow and learn	Section 8
●How to select activities that are developmentally appropriate	Section 9
●Children with special needs	Section 10
●Guidance and discipline	Section 11
<b>Evaluation sheets and instructions for mailing</b>	<b>Section 12</b>

## Introduction

Welcome to **The Independent Study Course for Child Caregivers**. Learning about children and ourselves is a lifelong process. Hopefully, you are planning to learn as much as you can for as long as you live. Some of the material in this book may be very familiar to you. This independent study course will help reinforce what you already know, encourage you to continue good practices and give you new knowledge.

### **Purpose of study course**

This independent study course is designed to be used by Nebraska child caregivers to obtain training hours that will meet the standards of annual inservice requirements of the Nebraska Department of Social Services and the Child and Adult Care Food Program. Eleven clock hours of training are offered through this course. The subject matter is designed for directors and staff members in child care centers but is suitable for family child caregivers.

### **Content of chapters**

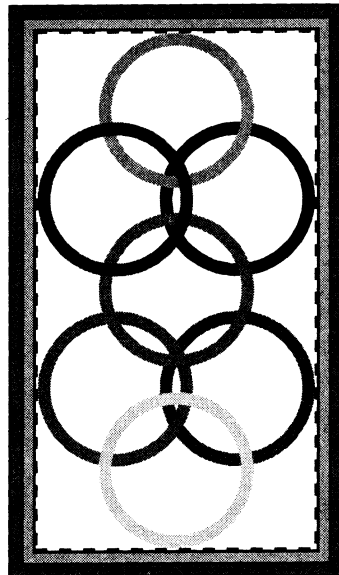
In each chapter you will find learning objectives, reading material, activities, and a quiz. The chapter activities are for your own use and should not be mailed with the quizzes. Please complete the activities because they are part of your training time and can provide helpful learning experiences. Mark your answers on the quiz as you complete each chapter. Then copy your answers to the correct page in the evaluation section.

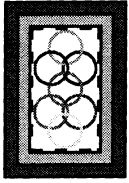
### **To obtain a certificate**

Copy your answers from the chapter quiz(zes) to the evaluation section and mail the form(s) along with a \$3.00 processing fee to the address in the evaluation section. Your graded answers will be returned to you along with a certificate documenting the number of hours you have earned. The process fee is \$3.00 per person per mailing. The number of hours listed on the certificate will be determined by the number of quizzes mailed. An individual may mail 1 to 11 quizzes. It is suggested that child caregivers use a variety of educational methods to receive training hours such as attendance at child care conferences, independent study courses, inservice sessions, etc. You may use different chapters in this course over a period of three years to obtain training hours. After that time, make inquiries about an update to the manual.

# Section 1

## Nutrition





# Nutrition



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## *Objectives:*

- ➡ *Making food choices that promote good health*
  - ➡ *Implementing the 1995 Dietary Guidelines*
  - ➡ *Using the Food Guide Pyramid and the New Food Labels as tools for making food choices*
- 
- 

- ☐ The following pages are written to help you as a child caregiver learn about the importance of appropriate food choices for yourself and your children.
- ☐ Nutrition plays a large part in your overall health.
- ☐ Nutritious meals and appropriate food choices do not just happen; they come from knowledge about foods and good planning.
- ☐ The information presented in this chapter is based on the 1995 Dietary Guidelines for Americans which form the basis for Federal policies related to nutrition and diet.

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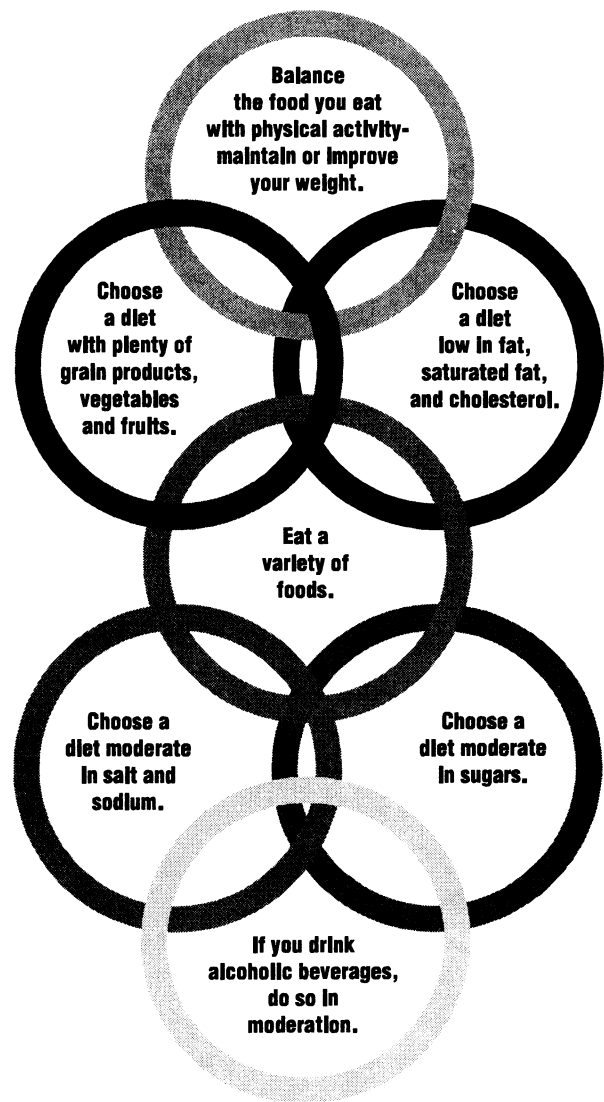
# What should you as a healthy American eat to stay healthy?

## The New Dietary Guidelines

Every time you pick up a magazine or turn on your television, some one is telling you how and what to eat. Unfortunately, not all the advice is sound. The ideas in this chapter are based on recognized nutritional guidelines. The fourth edition, 1995 Dietary Guidelines for Americans form the basis of Federal policies related to nutrition and diet. They provide advice for healthy Americans age 2 years and over about food choices that promote health and prevent disease.

## Eating is one of life's greatest pleasures

Food choices depend on history, culture, and environment, as well as on energy and nutrient needs. People also eat foods for enjoyment. Family, friends, and beliefs play a major role in the ways people select foods and plan meals. Nutrition is important in all stages of the life cycle.



<b>Nutrition During the Stages of the Life Cycle</b>	
<b>Pregnancy</b>	Approximately 300 additional calories are required each day for increased energy needs. A well-balanced and varied diet is needed because of the body's increased need for protein, vitamins, minerals and calories.
<b>Infancy</b>	Nutritional needs during the first year are met through human milk or infant formula. It is not recommended that solid foods be given to infants before the fourth month of age.
<b>Children two to five years</b>	Children should be fed nutritious foods during mealtime and snack time. Implementation of the Dietary Guidelines should start at this age. Iron-fortified breakfast cereals and lean meat help supply daily iron requirements.
<b>Children six to twelve years</b>	Children should be encouraged to eat a variety of nutritious foods for growth and development Children at this age can learn to make healthy food choices.
<b>Adolescence</b>	Rapid growth periods occur in girls between the ages of 10 and 13 years , and in boys between the ages of 12 and 15 years. An increased need for calcium occurs due to rapid bone growth. Teens need to increase their intake of foods from the dairy group, choosing the low fat choices within this group.
<b>Young Adulthood</b>	It is important for young adults to realize that the food choices, health practices, and lifestyle decisions made during this time have significant effect on health and wellness in later life.
<b>Older Adulthood</b>	A healthy diet can help reduce some of the effects of aging. Poor nutritional health at this stage of life can affect the severity of diseases.

Many genetic, environmental, behavioral, and cultural factors can affect health. Understanding family history of disease or risk factors -- body weight and fat distribution, blood pressure, and blood cholesterol, for example -- can help people make more informed decisions about actions that can improve health prospects. Food choices are among the most pleasurable and effective of these actions.

Healthful diets help children grow, develop, and do well in school. Healthful diets enable people of all ages to work productively and feel their best. Food choices also can help to reduce the risk for chronic diseases, such as heart disease, certain cancers, diabetes, stroke, and osteoporosis, that are leading causes of death and disability among Americans. Good diets can reduce major risk factors for chronic diseases -- factors such as obesity, high blood pressure, and high blood cholesterol.

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## Foods contain energy, nutrients, and other components that affect health

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People require energy and certain other essential nutrients. These nutrients are essential because the body cannot make them and must obtain them from food. Essential nutrients include vitamins, minerals, certain amino acids, and certain fatty acids. Foods also contain other components such as fiber that are important for health. Although each of these food components has a specific function in the body, all of them together are required for overall health. People need calcium to build and maintain strong bones, for example, but many other nutrients also are involved.

Carbohydrates, fats, and proteins in food supply energy and are measured in calories. Carbohydrates and proteins provide about 4 calories per gram. Fat contributes more than twice as much -- about 9 calories per gram. Alcohol, although not a nutrient, also supplies energy -- about 7 calories per gram. Foods that are high in fat are also high in calories. However, many lowfat or nonfat foods can also be high in calories.

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## Physical activity fosters a healthful diet

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Calorie needs vary by *age* and *level of activity*. Many older adults need less food, in part due to decreased activity, relative to younger, more active individuals. People who are trying to lose weight and eating little food may need to select more

nutrient-dense foods in order to meet their nutrient needs in a satisfying diet. Nearly all Americans need to be more active, because a sedentary lifestyle is unhealthy. Increasing the calories spent in daily activities helps to maintain health and allows people to eat a nutritious and enjoyable diet.

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## What is a healthful diet?

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Healthful diets contain the amounts of essential nutrients and calories needed to prevent nutritional deficiencies and excesses. Healthful diets also provide the right balance of carbohydrate, fat, and protein to reduce risks for chronic diseases, and are a part of a full and productive lifestyle. Such diets are obtained from a variety of foods that are available, affordable, and enjoyable. Healthful diets include choosing moderate amounts of foods from all of the food groups.

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## The Recommended Dietary Allowances refer to nutrients

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Recommended Dietary Allowances (RDAs) represent the amounts of nutrients that are adequate to meet the needs of most healthy people. Although people with average nutrient requirements likely eat adequately at levels below the RDAs, diets that meet RDAs are almost certain to ensure intake of enough essential nutrients by most healthy people. *The Dietary Guidelines describe food choices* that will help you meet these recommendations. Like the RDAs, the Dietary Guidelines apply to diets consumed over several days and not to single meals or



The Dietary Guidelines are designed to help Americans choose diets that will meet nutrient requirements, promote health, support active lives, and reduce chronic disease risks. Research has shown that certain diets raise risks for chronic diseases.

Such diets are high in fat, saturated fat, cholesterol, and salt and they contain more calories than the body uses. They are also low in grain products, vegetables, fruit, and fiber.

**The Dietary Guidelines describe food choices that promote good health**

The Food Guide Pyramid and the Nutrition Facts Label serve as *educational tools* to put the Dietary Guidelines into practice.

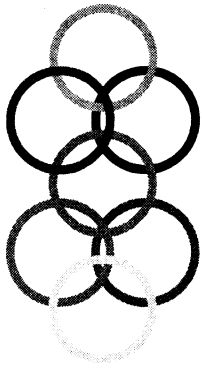
The Pyramid translates the RDAs and the Dietary Guidelines into the kinds and amounts of food to eat each day. The Nutrition Facts Label is designed to help you select foods for a diet that will meet the Dietary Guidelines. Most processed foods now include nutrition information. However, nutrition labels are not required for foods like coffee and tea (which contain no significant amounts of nutrients), certain ready-to-eat foods like unpackaged deli and bakery items, and restaurant food. Labels are also voluntary for many raw foods -- your grocer may supply this information for the fish, meat, poultry, and raw fruits and vegetables that are consumed most frequently. Use the Nutrition Facts Label to choose a healthful diet.

**Food labels and the Food Guide Pyramid are tools to help you make food choices**

Fill in the blank to the following statements.

- ◆ Calorie needs vary by \_\_\_\_\_ and levels of \_\_\_\_\_.
- ◆ The Dietary Guidelines describe \_\_\_\_\_ choices that promote good health.
- ◆ Food labels and the Food Guide Pyramid are \_\_\_\_\_ to help you make food choices.

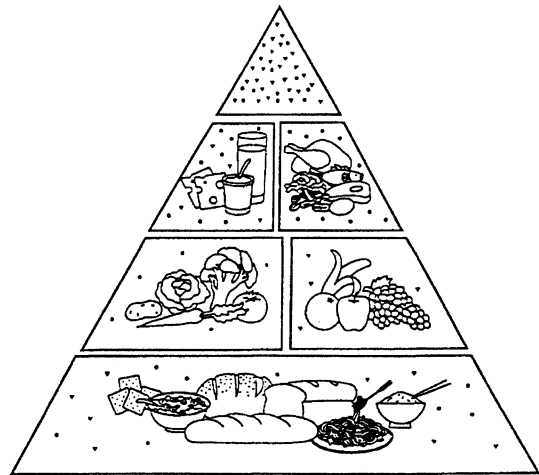
If you could not fill in the blanks by what you remembered, read the prior two pages for the answers.



**Eat a variety of foods** to obtain the nutrients and other substances needed for good health, vary the foods you eat.

Foods contain combinations of nutrients and other healthful substances. No single food can supply all nutrients in the amounts you need. For example, oranges provide vitamin C but no vitamin B12; cheese provides vitamin B12 but no vitamin C.

To make sure you get all of the nutrients and other substances needed for health, choose the recommended number of daily servings from each of the five major food groups displayed in the Food Guide Pyramid.



**Use foods from the base of the Food Guide Pyramid as the foundation of your meals**

Americans do choose a wide variety of foods. However, people often choose higher or lower amounts from some food groups than suggested in the Food Guide Pyramid. The Pyramid shows that foods from the grain products group, along with vegetables and fruits, are the basis of healthful diets. Enjoy meals that have rice, pasta, potatoes, or bread at the center of the plate, accompanied by other vegetables and fruit, and lean and low-fat foods from the other groups. Limit fats and sugars added in food preparation and at the table.

Enjoy eating a variety of foods. Get the many nutrients your body needs by choosing among the varied foods you enjoy from these groups: grain products, vegetables, fruits, milk and milk products, protein-rich plant foods (beans, nuts), and protein-rich animal foods (lean meat, poultry, fish, and eggs). Remember to choose lean and lowfat foods and beverages most often. Many foods you eat contain servings from more than one food group. For example, soups and stews may contain meat, beans, noodles, and vegetables.

## CHOOSE FOODS FROM EACH OF FIVE FOOD GROUPS

The Food Guide Pyramid illustrates the importance of balance among food groups in a daily eating pattern. Most of the daily servings of food should be selected from the food groups that are the largest in the picture and closest to the base of the Pyramid.

- ✓ Choose most of your foods from the grain products group (6-11 servings), the vegetable group (3-5 servings), and the fruit group (2-4 servings).
- ✓ Eat moderate amounts of foods from the milk group (2-3 servings) and the meat and beans group (2-3 servings).
- ✓ Choose sparingly foods that provide few nutrients and are high in fat and sugars.

Note: A range of servings is given for each food group. The smaller number is for people who consume about 1,600 calories a day, such as many sedentary women. The larger number is for those who consume about 2,800 calories a day, such as active men.

Notice that some of the serving sizes are smaller than what you might usually eat. For example, many people eat a cup or more of pasta in a meal, which equals two or more servings. So, it is easy to eat the number of servings recommended.

## WHAT COUNTS AS A SERVING?

### Grain Products Group (bread, cereal, rice, and pasta)

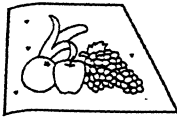


- 1 slice of bread
- 1 ounce of ready-to-eat cereal
- ½ cup of cooked cereal, rice, or pasta

### Vegetable Group

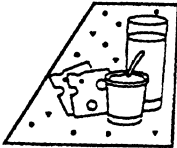


- 1 cup of raw leafy vegetables
- ½ cup of other vegetables -- cooked or chopped raw
- ¾ cup of vegetable juice



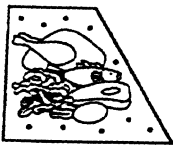
### **Fruit Group**

- 1 medium apple, banana, orange
- ½ cup of chopped, cooked, or canned fruit
- ¾ cup of fruit juice



### **Milk Group (milk, yogurt, and cheese)**

- 1 cup of milk or yogurt
- 1-1/2 ounces of natural cheese
- 2 ounces of processed cheese



### **Meat and Beans Group (meat, poultry, fish, dry beans, eggs, and nuts)**

- 2-3 ounces of cooked lean meat, poultry, or fish
- ½ cup of cooked dry beans or 1 egg counts as 1 ounce of lean meat.
- Two tablespoons of peanut butter or 1/3 cup of nuts count as 1 ounce of meat.

Some foods fit into more than one group. Dry beans, peas, and lentils can be counted as servings in either the meat and beans group or vegetable group. These "cross over" foods can be counted as servings from either one or the other group, but not both. Serving sizes indicated here are those used in the Food Guide Pyramid and based on both suggested and usually consumed portions necessary to achieve adequate nutrient intake. They differ from serving sizes on the Nutrition Facts Label, which reflect portions usually consumed.

*As a child caregiver following Child and Adult Care Food Program Regulations, you realize that the serving sizes are different than those listed in the Food Guide Pyramid.*

## **Choose different foods within each food group**

You can achieve a healthful, nutritious eating pattern with many combinations of foods from the five major food groups. Choosing a variety of foods within and across food groups improves dietary patterns because foods within the same group have different combinations of nutrients and other beneficial substances. For example, some vegetables and fruits are good sources of vitamin C or vitamin A, while others are high in folate; still others are good sources of calcium or iron. Choosing a variety of foods within each group also helps to make your meals more interesting from day to day.

## **What about vegetarian diets?**

Some Americans eat vegetarian diets for reasons of culture, belief, or health. Most vegetarians (vegans) eat milk products and eggs, and as a group, these lacto-ovo-vegetarians enjoy excellent health. Vegetarian diets are consistent with the Dietary Guidelines for Americans and can meet Recommended Dietary Allowances for nutrients. You can get enough protein from a vegetarian diet as long as the variety and amounts of foods consumed are adequate. Meat, fish, and poultry are major contributors of iron, zinc, and B vitamins in most American diets, and vegetarians should pay special attention to these nutrients.

Vegans eat only food of plant origin. Because animal products are the only food sources of vitamin B12, vegans must supplement their diets with a source of this vitamin. In addition, vegan diets, particularly those of children, require care to ensure adequacy of vitamin D and calcium, which most Americans obtain from milk products.

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## **Foods vary in their amounts of calories and nutrients**

Some foods such as grain products, vegetables, and fruits have many nutrients and other healthful substances but are relatively low in calories. Fat and alcohol are high in calories. Foods high in both sugars and fat contain many calories but often are low in vitamins, minerals, or fiber.

People who do not need many calories or who must restrict their food intake need to choose nutrient-rich foods from the five major food groups with special care. They should obtain most of their calories from foods that contain a high proportion of essential nutrients and fiber.

Growing children, teenage girls, and women have higher needs for some nutrients. Many women and adolescent girls need to eat more calcium-rich foods to get the calcium needed for healthy bones throughout life. By selecting lowfat or fat-free milk products and other lowfat calcium sources, they can obtain adequate calcium and keep fat intake from being too high. Young children, teenage girls, and women of childbearing age should also eat enough iron-rich foods, such as lean meats and whole-grain or enriched white bread, to keep the body's iron stores at adequate levels.

## SOME GOOD SOURCES OF CALCIUM\*

- Most foods in the milk group
  - milk and dishes made with milk, such as puddings and soups made with milk
  - cheeses such as Mozzarella, Cheddar, Swiss, and Parmesan
  - yogurt
- Canned fish with soft bones such as sardines, anchovies, and salmon
- Dark-green leafy vegetables, such as kale, mustard greens, and turnip greens
- Tofu, if processed with calcium sulfate. Read the labels.
- Tortillas made from lime-processed corn. Read the labels.

\* Some foods in this group are high in fat, cholesterol, or both. Choose lower fat, lower cholesterol foods most often. Read the labels.

## SOME GOOD SOURCES OF IRON

- Meats -- beef, pork, lamb, and liver and other organ meats\*
- Poultry -- chicken, duck, and turkey, especially dark meat; liver\*
- Fish -- shellfish, like clams, mussels, and oysters; sardines; anchovies; and other fish\*
- Leafy greens of the cabbage family, such as broccoli, kale, turnip greens, collards
- Legumes, such as lima beans and green peas; dry beans and peas, such as pinto beans, black-eyed peas, and canned baked beans
- Yeast-leavened whole-wheat bread and rolls
- Iron-enriched white bread, pasta, rice, and cereals. Read the labels.

\* Some foods in this group are high in fat, cholesterol, or both. Choose lean, lower fat, lower cholesterol foods most often. Read the labels.

## ENRICHED AND FORTIFIED FOODS HAVE ESSENTIAL NUTRIENTS ADDED TO THEM

National policy requires that specified amounts of nutrients be added to enrich some foods. For example, enriched flour and bread contain added thiamin, riboflavin, niacin, and iron; skim milk, lowfat milk, and margarine are usually enriched with vitamin A; and milk is usually enriched with vitamin D. Fortified foods may have one or several nutrients added in extra amounts. The number and quantity of nutrients added vary among products. Fortified foods may be useful for meeting special dietary needs. Read the ingredient list to know which nutrients are added to foods. How these foods fit into your total diet will depend on the amounts you eat and the other foods you consume.

## Where do vitamin, mineral, and fiber supplements fit in?

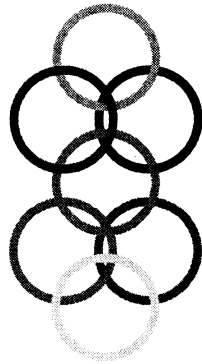
Supplements of vitamins, minerals, or fiber also may help to meet special nutritional needs. However, supplements do not supply all of the nutrients and other substances present in foods that are important to health. Supplements of some nutrients taken regularly in large amounts are harmful. Daily vitamin and mineral supplements at or below the Recommended Dietary Allowances are considered safe, but are usually not needed by people who eat the variety of foods depicted in the Food Guide pyramid.

Sometimes supplements are needed to meet specific nutrient requirements. For example, older people and others with little exposure to sunlight may need a vitamin D supplement. Women of childbearing age may reduce the risk of certain birth defects by consuming folate-rich foods or folic acid supplements. Iron supplements are recommended for pregnant women. However, because foods contain many nutrients and other substances that promote health, the use of supplements cannot substitute for proper food choices.

## In Summary:

Keep a food record of what you eat for one day. Some foods that you eat may be in more than one food group. If it is a large-size portion -- count it for both food groups or decide which group it would fit into best. The dark lines indicate the number of servings that should ideally be offered to your child each day, meals and snacks included.

Milk Group						
Meat Group						
Fruit Group						
Vegetable Group						
Bread Group						
Others Category						



## **BALANCE THE FOOD YOU EAT WITH PHYSICAL ACTIVITY – MAINTAIN OR IMPROVE YOUR WEIGHT**

Many Americans gain weight in adulthood, increasing their risk for high blood pressure, heart disease, stroke, diabetes, certain types of cancer, arthritis, breathing problems, and other illness. Therefore, most adults should not gain weight. If you are overweight and have one of these problems, you should try to lose weight, or at the very least, not gain weight. If you are uncertain about your risk of developing a problem associated with overweight, you should consult a health professional.

### **How to maintain your weight**

In order to stay at the same body weight, people must balance the amount of calories in the food and drinks they consume with the amount of calories the body uses. Physical activity is an important way to use food energy. Most Americans spend much of their working day in activities that require little energy. In addition, many Americans of all ages now spend a lot of leisure time each day being inactive, for example, watching television or working at a computer. To burn calories, devote less time to sedentary activities like sitting. Spend more time in activities like walking to the store or around the block. Use stairs rather than elevators. Less sedentary activity and more vigorous activity may help you reduce body fat and disease risk. Try to do 30 minutes or more of moderate physical activity on most -- preferably all-- days of the week.

The kinds and amounts of food people eat affect their ability to maintain weight. High-fat foods contain more calories per serving than other foods and may increase the likelihood of weight gain. However, even when people eat less high-fat food, they still can gain weight from eating too much of foods high in starch, sugars, or protein. Eat a variety of foods, emphasizing pasta, rice, bread, and other whole-grain foods as well as fruits and vegetables. These foods are filling, but lower in calories than foods rich in fats or oils.

The pattern of eating may also be important. Snacks provide a large percentage of daily calories for many Americans. Unless nutritious snacks are part of the daily meal plan, snacking may lead to weight gain. A pattern of frequent binge-eating, with or without alternating periods of food restriction, may also contribute to weight problems.



Maintaining weight is equally important for older people who begin to lose weight as they age. Some of the weight that is lost is muscle. Maintaining muscle through regular activity helps to keep older people feeling well and helps to reduce the risk of falls and fractures.

Research suggests that the location of body fat also is an important factor in health risks for adults. Excess fat in the abdomen (stomach area) is a greater health risk than excess fat in the hips and thighs. Extra fat in the abdomen is linked to high blood pressure, diabetes, early heart disease, and certain types of cancer. Smoking and too much alcohol increase abdominal fat and the risk for diseases related to obesity. Vigorous exercise helps to reduce abdominal fat and decrease the risk for these diseases. The easiest way to check your body fat distribution is to measure around your waistline with a tape measure and compare this with the measure around your hips or buttocks to see if your abdomen is larger. If you are in doubt, you may wish to seek advice from a health professional.

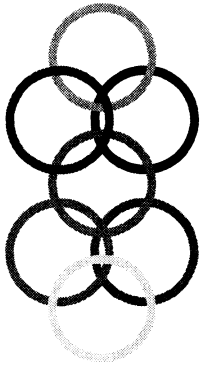
Many people are not sure how much weight they should lose. Weight loss of only 5-10 percent of body weight may improve many of the problems associated with overweight, such as high blood pressure and diabetes. If you are trying to lose weight, do so slowly and steadily. Generally safe rate is 1/2-1 pound a week until you reach your goal. Avoid crash weight-loss approaches, such as self-induced vomiting or the use of laxatives, amphetamines, or diuretics. These are not appropriate and can be dangerous to your health.

## **Weight regulation in children**

Children need enough food for proper growth. To promote growth and development and prevent overweight, teach children to eat grain products; vegetables and fruits; lowfat milk products or other calcium-rich foods; beans, lean meat, poultry, fish or other protein-rich foods; and to participate in vigorous activity. Limiting television time and encouraging children to play actively in a safe environment are helpful steps. Although limiting fat intake may help to prevent excess weight gain in children, fat should not be restricted for children younger than two years of age. Helping overweight children to achieve a healthy weight along with normal growth requires more caution. Modest reductions in dietary fat, such as the use of lowfat milk rather than whole milk, are not hazardous. However, major efforts to change a child's diet should be accompanied by monitoring of growth by a health professional at regular intervals.

## **In summary**

Try to maintain your body weight by balancing what you eat with physical activity. If you are sedentary, try to become more active. If you are already very active, try to continue the same level of activity as you age. More physical activity is better than less, and any is better than none. If your weight is not in the healthy range, try to reduce health risks through better eating and exercise habits. Take steps to keep your weight within the healthy range (neither too high nor too low). Have children's heights and weights checked regularly by a health professional.



## **CHOOSE A DIET WITH PLENTY OF GRAIN PRODUCTS, VEGETABLES, AND FRUITS**

Grain products, vegetables, and fruits are key parts of a varied diet. They are emphasized in this guideline because they provide vitamins, minerals, complex carbohydrates (starch and dietary fiber), and other substances that are important for good health. They are also generally low in fat, depending on how they are prepared and what is added to them at the table. Most Americans of all ages eat fewer than the recommended number of servings of grain products, vegetables, and fruits, even though consumption of these foods is associated with a substantially lower risk for many chronic diseases, including certain types of cancer.

### **Most of the calories in your diet should come from grain products, vegetables, and fruits**

These include grain products high in complex carbohydrates --breads, cereals, pasta, rice -- found at the base of the Food Guide Pyramid, as well as vegetables such as potatoes and corn. Dry beans (like pinto, navy, kidney, and black beans) are included in the meat and beans group of the Pyramid, but they can count as servings of vegetables instead of meat alternatives.

### **Plant foods provide fiber**

Fiber is found only in plant foods like whole-grain breads and cereals, beans and peas, and other vegetables and fruits. Because there are different types of fiber in foods, choose a variety of foods daily. Eating a variety of fiber-containing plant foods is important for proper bowel function, can reduce symptoms of chronic constipation, diverticular disease, and hemorrhoids, and may lower the risk for heart disease and some cancers. However, some of the health benefits associated with a high-fiber diet may come from other components present in these foods, not just from fiber itself. For this reason, fiber is best obtained from foods rather than supplements.

## **Plant foods provide a variety of vitamins and minerals essential for health**

Most fruits and vegetables are naturally low in fat and provide many essential nutrients and other food components important for health. These foods are excellent sources of vitamin C, vitamin B6, carotenoids. The antioxidant nutrients found in plant foods (e.g., vitamin C, carotenoids, vitamin E, and certain minerals) are presently of great interest to scientists and the public because of their potentially beneficial role in reducing the risk for cancer and certain other chronic diseases. Scientists are also trying to determine if other substances in plant foods protect against cancer.

### **SOME GOOD SOURCES OF CAROTENOIDS**

- Dark-green leafy vegetables (such as spinach, collards, kale, mustard greens, turnip greens), broccoli, carrots, pumpkin and calabasa, red pepper, sweet potatoes, and tomatoes
- Fruits like mango, papaya, cantaloupe

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Folate, also called folic acid, is a B vitamin that, among its many functions, reduces the risk of a serious type of birth defect. Minerals such as potassium, found in a wide variety of vegetables and fruits, and calcium, found in certain vegetables, may help reduce the risk for high blood pressure.

### **SOME GOOD SOURCES OF FOLATE**

- Dry beans (like red beans, navy beans, and soybeans), lentils, chickpeas, cow peas, and peanuts
- Many vegetables, especially leafy greens (spinach, cabbage, brussels sprouts, romaine, looseleaf lettuce), peas, okra, sweet corn, beets, and broccoli
- Fruits such as blackberries, boysenberries, kiwifruit, oranges, plantains, strawberries, orange juice, and pineapple juice

The availability of fresh fruits and vegetables varies by season and region of the country, but frozen and canned fruits and vegetables ensure a plentiful supply of these healthful foods throughout the year. Read the Nutrition Facts Label to help choose foods that are rich in carbohydrates, fiber, and nutrients, and low in fat and sodium.

## **FOR A DIET WITH PLENTY OF GRAIN PRODUCTS, VEGETABLES, AND FRUITS, EAT DAILY–**

### **6-11 servings of grain products (breads, cereals, pasta, and rice)**

- Eat products made from a variety of whole grains, such as wheat, rice, oats, corn, and barley.
- Eat several servings of whole-grain breads and cereals daily.
- Prepare and serve grain products with little or no fats and sugars.

### **3-5 servings of various vegetables and vegetable juices**

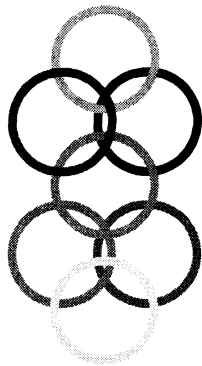
- Choose dark-green leafy and deep-yellow vegetables often.
- Eat dry beans, peas, and lentils often.
- Eat starchy vegetables, such as potatoes and corn.
- Prepare and serve vegetables with little or no fats.

### **2-4 servings of various fruits and fruit juices**

- Choose citrus fruits or juices, melons, or berries regularly.
- Eat fruits as desserts or snacks.
- Drink fruit juices.
- Prepare and serve fruits with little or no added sugars.

## **In summary**

Eat more grain products (breads, cereals, pasta, and rice), vegetables, and fruits. Eat dry beans, lentils, and peas more often. Increase your fiber intake by eating more of a variety of whole grains, whole-grain products, dry beans, fiber-rich vegetables and fruits such as carrots, corn, peas, pears, and berries.



## **CHOOSE A DIET LOW IN FAT, SATURATED FAT, AND CHOLESTEROL**

Some dietary fat is needed for good health. Fats supply energy and essential fatty acids and promote absorption of the fat-soluble vitamins A, D, E, and K.

Most people are aware that high levels of saturated fat and cholesterol in the diet are linked to increased blood cholesterol levels and a greater risk for heart disease. More Americans are now eating less fat, saturated fat, and cholesterol-rich foods than in the recent past, and fewer people are dying from the most common form of heart disease. Still, many people continue to eat high-fat diets, the number of overweight people has increased, and the risk of heart disease and certain cancers (also linked to fat intake) remains high. This guideline emphasizes the continued importance of choosing a diet with less total fat, saturated fat, and cholesterol.

### **Foods high in fat should be used sparingly**

Some foods and food groups in the Food Guide Pyramid are higher in fat than others. Fats and oils, and some types of desserts and snack foods that contain fat provide calories but few nutrients. Many foods in the milk group and in the meat and beans group (which includes eggs and nuts, as well as meat, poultry, and fish) are also high in fat, as are some processed foods in the grain group. Choosing lower fat options among these foods allows you to eat the recommended servings from these groups and increase the amount and variety of grain products, fruits, and vegetables in your diet without going over your calorie needs.

### **Choose a diet low in fat**

Fat, whether from plant or animal sources, contains more than twice the number of calories of an equal amount of carbohydrate or protein. Choose a diet that provides no more than 30 percent of total calories from fat. The upper limit on the grams of fat in your diet will depend on the calories you need. Cutting back on fat can help you consume fewer calories. For example, at 2,000 calories per day, the suggested upper limit of calories from fat is about 600 calories. Sixty-five grams of fat contribute about 600 calories (65 grams of fat x 9 calories per gram = about 600 calories). On the Nutrition Facts Label, 65 grams of fat is the Daily Value for a 2,000-calorie intake.

# How Do You Score on Fat?

Answer the questions below, then see how your diet stacks up.

	Seldom or never	1 or 2 a week	3 to 5 times a week	Almost daily
<b>How often do you eat:</b>				
1. Fried, deep-fat fried, or breaded foods?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Fatty meats such as bacon, sausage, luncheon meats, and heavily marbled steaks and roasts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Whole milk, high-fat cheeses, and ice cream?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. High-fat desserts such as pies, pastries, and rich cakes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Rich sauces and gravies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Oily salad dressings or mayonnaise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Whipped cream, table cream, sour cream, and cream cheese?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Butter or margarine on vegetables, dinner rolls, and toast?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Take a look at your answers. Several responses in the last two columns means you may have a high fat intake. Is it time to cut back on foods high in fat?

## **Choose a diet low in saturated fat**

Fats contain both saturated and unsaturated (monounsaturated and polyunsaturated) fatty acids. Saturated fat raises blood cholesterol more than other forms of fat. Reducing saturated fat to less than 10 percent of calories will help you lower your blood cholesterol level. The fats from meat, milk, and milk products are the main sources of saturated fats in most diets. Many bakery products are also sources of saturated fats. Vegetable oils supply smaller amounts of saturated fat. On the Nutrition Facts Label, 20 grams of saturated fat (9 percent of caloric intake) is the Daily Value for a 2,000-calorie diet.

### *Monounsaturated and polyunsaturated fat.*

Olive and canola oils are particularly high in monounsaturated fats; most other vegetable oils, nuts, and high-fat fish are good sources of polyunsaturated fats. Both kinds of unsaturated fats reduce blood cholesterol when they replace saturated fats in the diet. The fats in most fish are low in saturated fatty acids and contain a certain type of polyunsaturated fatty acid (omega-3) that is under study because of a possible association with a decreased risk for heart disease in certain people. Remember that the total fat in the diet should be consumed at a moderate level -- that is, no more than 30 percent of calories. Mono- and polyunsaturated fat sources should replace saturated fats within this limit.

Partially hydrogenated vegetable oils, such as those used in many margarines and shortenings, contain a particular form of unsaturated fat known as trans-fatty acids that may raise blood cholesterol levels, although not as much as saturated fat.

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## **Choose a diet low in cholesterol**

The body makes the cholesterol it requires. In addition, cholesterol is obtained from food. Dietary cholesterol comes from animal sources such as egg yolks, meat (especially organ meats such as liver), poultry, fish, and higher fat milk products. Many of these foods are also high in saturated fats. Choosing foods with less cholesterol and saturated fat will help lower your blood cholesterol levels. The Nutrition Facts Label lists the Daily Value for cholesterol as 300 mg. You can keep your cholesterol intake at this level or lower by eating more grain products, vegetables and fruits, and by limiting intake of high cholesterol foods.

## TIPS TO HELP YOU TOWARDS A DIET LOW IN FAT, SATURATED FAT, AND CHOLESTEROL

### Fats and Oils

- Use fats and oils sparingly in cooking and at the table.
- Use small amounts of salad dressings and spreads such as butter, margarine, and mayonnaise. Consider using lowfat or fat-free dressings for salads.
- Choose vegetable oils and soft margarines most often because they are lower in saturated fat than solid shortenings and animal fats, even though their caloric content is the same.
- Check the Nutrition Facts Label to see how much fat and saturated fat are in a serving; choose foods lower in fat and saturated fat.

### Grain Products, Vegetables, and Fruits

- Choose lowfat sauces with pasta, rice, and potatoes.
- Use as little fat as possible to cook vegetables and grain products.
- Season with herbs, spices, lemon juice, and fat-free or lowfat salad dressings.

### Meat, Poultry, Fish, Eggs, Beans, and Nuts

- Choose two to three servings of lean fish, poultry, meats, or other protein-rich foods, such as beans, daily. Use meats labeled "lean" or "extra lean." Trim fat from meat; take skin off poultry. (Three ounces of cooked lean beef or chicken without skin -- a piece the size of a deck of cards -- provides about 6 grams of fat; a piece of chicken with skin or untrimmed meat of that size may have as much as twice this amount of fat.) Most beans and bean products are almost fat-free and are a good source of protein and fiber.
- Limit intake of high-fat processed meats such as sausages, salami, and other cold cuts; choose lower fat varieties by reading the Nutrition Facts Label.
- Limit the intake of organ meats (three ounces of cooked chicken liver have about 540 mg of cholesterol); use egg yolks in moderation (one egg yolk has about 215 mg of cholesterol). Egg whites contain no cholesterol and can be used freely.

### Milk and Milk Products

- Choose skim or lowfat milk, fat-free or lowfat yogurt, and lowfat cheese.
- Have two to three lowfat servings daily. Add extra calcium to your diet without added fat by choosing fat-free yogurt and lowfat milk more often. [One cup of skim milk has almost no fat, 1 cup of 1 percent milk has 2.5 grams of fat, 1 cup of 2 percent milk has 5 grams (one teaspoon) of fat, and 1 cup of whole milk has 8 grams of fat.] If you do not consume foods from this group, eat other calcium-rich foods.



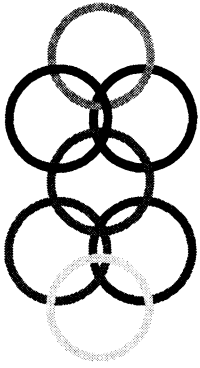
# Advice for Children

**Advice in the previous sections does not apply to infants and toddlers below the age of two years.** After that age, children should gradually adopt a diet that, by about five years of age, contains no more than 30 percent of calories from fat. As they begin to consume fewer calories from fat, children should replace these calories by eating more grain products, fruits, vegetables, and lowfat milk products or other calcium-rich foods, and beans, lean meat, poultry, fish, or other protein-rich foods.

## **In summary**

To reduce your intake of fat, saturated fat, and cholesterol, follow these recommendations, as illustrated in the Food Guide Pyramid, which apply to diets consumed over several days and not to single meals or foods.

- ☐-- Use fats and oils sparingly.
- ☐-- Use the Nutrition Facts Label to help you choose foods lower in fat, saturated fat, and cholesterol.
- ☐-- Eat plenty of grain products, vegetables, and fruits.
- ☐-- Choose lowfat milk products, lean meats, fish, poultry, beans, and peas to get essential nutrients without substantially increasing calorie and saturated fat intakes.



## CHOOSE A DIET MODERATE IN SUGARS

### Sugars come in many forms

Sugars are carbohydrates. Dietary carbohydrates also include the complex carbohydrates starch and fiber. During digestion all carbohydrates except fiber break down into sugars. Sugars and starches occur naturally in many foods that also supply other nutrients.

Examples of these foods include milk, fruits, some vegetables, breads, cereals, and grains.

Americans eat sugars in many forms, and most people like their taste. Some sugars are used as natural preservatives, thickeners, and baking aids in foods; they are often added to foods during processing and preparation or when they are eaten. The body cannot tell the difference between naturally occurring and added sugars because they are identical chemically.

### Sugars, health, and weight maintenance

Scientific evidence indicates that diets high in sugars do not cause hyperactivity or diabetes. The most common type of diabetes occurs in overweight adults. Avoiding sugars alone will not correct overweight. To lose weight reduce the total amount of calories from the food you eat and increase your level of physical activity.

If you wish to maintain your weight when you eat less fat, replace the lost calories from fat with equal calories from fruits, vegetables, and grain products, found in the lower half of the Food Guide Pyramid. Some foods that contain a lot of sugars supply calories but few or no nutrients. These foods are located at the top of the Pyramid. For very active people with high calorie needs, sugars can be an additional source of energy. However, because maintaining a nutritious diet and a healthy weight is very important, sugars should be used in moderation by most healthy people and sparingly by people with low calorie needs. This guideline cautions about eating sugars in large amounts and about frequent snacks of foods and beverages containing sugars that supply unnecessary calories and few nutrients.

ON A FOOD LABEL, SUGARS INCLUDE
Brown sugar, corn sweetener, corn syrup, fructose, fruit juice concentrate glucose (dextrose), high-fructose corn syrup, honey, invert sugar, lactose, maltose, molasses, raw sugar, [table] sugar (sucrose), syrup
<b>A food is likely to be high in sugars if one of the above terms appears first or second in the ingredients list, or if several of them are listed.</b>

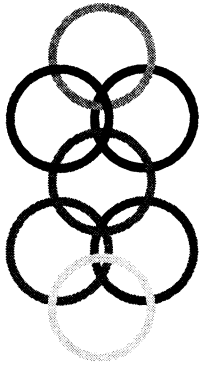
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- ☐-- Choose lowfat milk products, lean meats, fish, poultry, beans, and peas to get essential nutrients without substantially increasing calorie and saturated fat intakes.



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<b>A food is likely to be high in sugars if one of the above terms appears first or second in the ingredients list, or if several of them are listed.</b>

## **Sugar substitutes**

Sugar substitutes such as sorbitol, saccharin, and aspartame are ingredients in many foods. Most sugar substitutes do not provide significant calories and therefore may be useful in the diets of people concerned about calorie intake. Foods containing sugar substitutes, however, may not always be lower in calories than similar products that contain sugars. Unless you reduce the total calories you eat, the use of sugar substitutes will not cause you to lose weight.

## **Sugars and dental cavities**

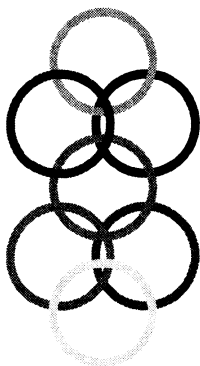
Both sugars and starches can promote tooth decay. The more often you eat foods that contain sugars and starches, and the longer these foods are in your mouth before you brush your teeth, the greater the risk for tooth decay. Thus, frequent eating of foods high in sugars and starches as between-meal snacks may be more harmful to your teeth than eating them at meals and then brushing. Regular daily dental hygiene, including brushing with a fluoride toothpaste and flossing, and an adequate intake of fluoride, preferably from fluoridated water, will help you prevent tooth decay.

<b>FOR HEALTHIER TEETH AND GUMS</b>
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- ◆ Eat fewer foods containing sugars and starches between meals.
- ◆ Brush and floss teeth regularly.
- ◆ Use a fluoride toothpaste.
- ◆ Ask your dentist-- or doctor about the need for supplemental fluoride, especially for children.

## **In summary**

Use sugars in moderation -- sparingly if your calorie needs are low. Avoid excessive snacking, brush with a fluoride toothpaste, and floss your teeth regularly. Read the Nutrition Facts Label on foods you buy. The food label lists the content of total carbohydrate and sugars, as well as calories.



## **CHOOSE A DIET MODERATE IN SALT AND SODIUM**

### **Sodium and salt are found mainly in processed and prepared foods**

Sodium and sodium chloride -- known commonly as salt -- occur naturally in foods, usually in small amounts. Salt and other sodium-containing ingredients are often used in food processing. Some people add salt and salty sauces, such as soy sauce, to their food at the table, but most dietary sodium or salt comes from foods to which salt has already been added during processing or preparation. Although many people add salt to enhance the taste of foods, their preference may weaken with eating less salt.

### **Sodium is associated with high blood pressure**

In the body, sodium plays an essential role in regulation of fluids and blood pressure. Many studies in diverse populations have shown that a high sodium intake is associated with higher blood pressure. Most evidence suggests that many people at risk for high blood pressure reduce their chances of developing this condition by consuming less salt or sodium. Some questions remain, partly because other factors may interact with sodium to affect blood pressure.

### **Other factors affect blood pressure**

Following other guidelines in the Dietary Guidelines for Americans may also help prevent high blood pressure. An important example is the guideline on weight and physical activity. The role of body weight in blood pressure control is well documented. Blood pressure increases with weight and decreases when weight is reduced.

- ◆ The guideline to consume a diet with plenty of fruits and vegetables is relevant because fruits and vegetables are naturally lower in sodium and fat and may help with weight reduction and control.
- ◆ Consuming more fruits and vegetables also increases potassium intakes which may help to reduce blood pressure.
- ◆ Increased physical activity helps lower blood pressure and control weight.
- ◆ Alcohol consumption has also been associated with high blood pressure.
- ◆ Another reason to reduce salt intake is the fact that high salt intakes may increase the amount of calcium excreted in the urine and, therefore, increase the body's need for calcium.

### SOME GOOD SOURCES OF POTASSIUM

- Vegetables and fruits in general, especially
  - potatoes and sweet potatoes
  - spinach, swiss chard, broccoli, winter squashes, and parsnips
  - dates, bananas, cantaloupes, mangoes, plantains, dried apricots, raisins, prunes, orange juice, and grapefruit juice
  - dry beans, peas, lentils
- Milk and yogurt are good sources of potassium and have less sodium than cheese; cheese has much less potassium and usually has added salt.

## Estimating the Sodium in Your Diet

Take a look at how the foods you eat and the way you prepare and serve them affect the amount of sodium in your diet.

	Less than once a a week	1 or 2 times a week	3 to 5 times a week	Almost daily
How often do you:				
1. Eat cured or processed meats such as ham, bacon, sausage, frankfurters, and other luncheon meats?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Choose canned vegetables or frozen vegetables with sauce?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Use commercially prepared meals, main dishes, or canned or dehydrated soups?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Eat salted nuts, popcorn, pretzels, corn chips, potato chips?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Add salt to cooking water for vegetables, rice, or pasta?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Add salt, seasoning mixes, salad dressings, or condiments such as soy sauce, steak sauce, catsup, and mustard to foods during preparation or at the table?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Salt your food before tasting it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## **Most Americans consume more salt than is needed**

Sodium has an important role in the body. However, most Americans consume more sodium than is needed. The Nutrition Facts Label lists a Daily Value of 2,400 mg per day for sodium [2,400 mg sodium per day is contained in 6 grams of sodium chloride (salt)]. In household measures, one level teaspoon of salt provides about 2,300 milligrams of sodium. Most people consume more than this amount.

There is no way at present to tell who might develop high blood pressure from eating too much sodium. However, consuming less salt or sodium is not harmful and can be recommended for the healthy normal adult.

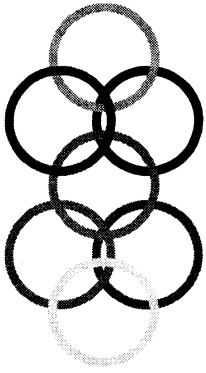
### **TO CONSUME LESS SALT AND SODIUM --**

- ✓ Read the Nutrition Facts Label to determine the amount of sodium in the foods you purchase. The sodium content of processed foods -- such as cereals, breads, soups, and salad dressings -- often varies widely.
- ✓ Choose foods lower in sodium and ask your grocer or supermarket to offer more low-sodium foods. Request less salt in your meals when eating out or traveling.
- ✓ If you salt foods in cooking or at the table, add small amounts. Learn to use spices and herbs, rather than salt, to enhance the flavor of food.
- ✓ When planning meals, consider that fresh and most plain frozen vegetables are low in sodium.
- ✓ When selecting canned foods, select those prepared with reduced or no sodium.
- ✓ Remember that fresh fish, poultry, and meat are lower in sodium than most canned and processed ones.
- ✓ Choose foods lower in sodium content. Many frozen dinners, packaged mixes, canned soups, and salad dressings contain a considerable amount of sodium. Remember that condiments such as soy and many other sauces, pickles, and olives are high in sodium. Ketchup and mustard, when eaten in large amounts, can also contribute significant amounts of sodium to the diet. Choose lower sodium varieties.
- ✓ Choose fresh fruits and vegetables as a lower sodium alternative to salted snack foods.

### **In summary**

Fresh fruits and vegetables have very little sodium. The food groups in the Food Guide Pyramid include some foods that are high in sodium and other foods that have very little sodium, or can be prepared in ways that add flavor without adding salt. Read the Nutrition Facts Label to compare and help identify foods lower in sodium within each group. Use herbs and spices to flavor food. Try to choose forms of foods that you frequently consume that are lower in sodium and salt.





## **IF YOU DRINK ALCOHOLIC BEVERAGES, DO SO IN MODERATION**

Alcoholic beverages supply calories but few or no nutrients. The alcohol in these beverages has effects that are harmful when consumed in excess. These effects of alcohol may alter judgment and can lead to dependency and a great many other serious health problems. Alcoholic beverages have been used to enhance the enjoyment of meals by many societies throughout human history. If adults choose to drink alcoholic beverages, they should consume them only in moderation .

### **WHAT IS MODERATION?**

Moderation is defined as no more than one drink per day for women and no more than two drinks per day for men.

*Count as a drink --*

- 12 ounces of regular beer (150 calories)
- 5 ounces of wine (100 calories)
- 1.5 ounces of 80-proof distilled spirits (100 calories)

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Current evidence suggests that moderate drinking is associated with a lower risk for coronary heart disease in some individuals. However, higher levels of alcohol intake raise the risk for high blood pressure, stroke, heart disease, certain cancers, accidents, violence, suicides, birth defects, and overall mortality (deaths). Too much alcohol may cause cirrhosis of the liver, inflammation of the pancreas, and damage to the brain and heart. Heavy drinkers also are at risk of malnutrition because alcohol contains calories that may substitute for those in more nutritious foods.

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## ***Who should not drink?***

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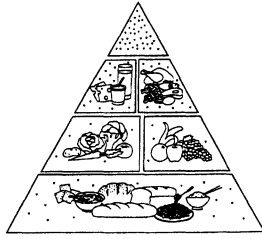
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**Some people should not drink alcoholic beverages at all. These include:**

- Children and adolescents.
- Individuals of any age who cannot restrict their drinking to moderate levels. This is a special concern for recovering alcoholics and people whose family members have alcohol problems.
- Women who are trying to conceive or who are pregnant. Major birth defects, including fetal alcohol syndrome, have been attributed to heavy drinking by the mother while pregnant. While there is no conclusive evidence that an occasional drink is harmful to the fetus or to the pregnant woman, a safe level of alcohol intake during pregnancy has not been established.
- Individuals who plan to drive or take part in activities that require attention or skill. Most people retain some alcohol in the blood up to 2-3 hours after a single drink.
- Individuals using prescription and over-the-counter medications. Alcohol may alter the effectiveness or toxicity of medicines. Also, some medications may increase blood alcohol levels or increase the adverse effect of alcohol on the brain.

## **In general**

If you drink alcoholic beverages, do so in moderation, with meals, and when consumption does not put you or others at risk.



## **Nutrition is a balancing act**

- ▲ Balance your food choices over time by making trade-offs. For example, when eating a food high in fat, salt or sugars, select other foods low in these ingredients.
- ▲ Eat moderate portion sizes. By controlling serving sizes, any food can be included in a healthy diet.
- ▲ There are no good foods, no bad foods. The goal is to balance your food selections over several days.
- ▲ The simplest way to healthy eating is to follow the recommendations of the Food Guide Pyramid.
- ▲ Now that you know the Dietary Guidelines and can use the Food Guide Pyramid, look at one more tool that can help you follow the guidelines and get the nutrients that you need. By checking food labels you can help determine healthy food choices. Government regulations have mandated that virtually all packaged food products display an updated nutrition label called “Nutrition Facts.”

### **Food Labels – “Nutrition Facts”**

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- ✓ Don’t be confused by the new food labels. They can give you the knowledge you need to improve and balance your diet with a few gradual changes.
- ✓ Don’t get hung up over the intake of one day. It’s the combination and variety of food choices over days and weeks that builds a healthful diet.
- ✓ Scan the food label panel to get a rough idea of how the nutrients in a food contribute to your daily diet. Then, choose a variety of foods to build a balanced diet.

- ✓ Take small steps in changing your dietary intake. This way the changes you make you can live with and not feel deprived from your old patterns of food selection.

*Go get a label from your favorite food and look at it while you read the next few paragraphs.*

Serving Size is based on a typical portion, as determined by government studies. The nutrition information listed on a label is based on one serving. Keep in mind that the labeled serving size is not a recommended portion size; you may eat more or less than one serving depending on your calorie needs and activity level.

The amount per serving column tells you how much of each of these nutrients a serving of the food contains.

The percent ( %) Daily Value (DV) gives you an idea of the nutrients one serving of food contributes to the recommended amount for a whole day based on dietary guidelines for a person who eats 2,000 calories per day. Consider 100% as a daily target. For example, when you choose a food with a 10% DV for protein, you'll still have 90% DV of protein to consume in other food choices. The % of DV needed for your diet may be higher or lower depending on your calorie needs.

Four key vitamins and minerals are listed on the label: vitamin A, vitamin C., calcium and iron. The percent (%) daily values (DV) shows how a food contributes to the recommended daily amount of these important nutrients. If other vitamins or minerals have been added or if the product makes a claim about other vitamins or minerals, their % DV also must be listed.

Some food packages will include a listing of the Recommended total daily values. When it appears on a label it is always the same. It shows the recommended amount of each nutrient for two different sample diets -- one based on 2,000 calories a day, the other on 2,500.

## **Summary**

The Food Guide Pyramid and the Nutrition Facts Label serve as educational tools to put the *Dietary Guidelines* into practice. The Pyramid translates the kinds and amounts of food to eat each day. The Nutrition Facts Label is designed to help you select foods for a diet that will meet the *Dietary Guidelines*.

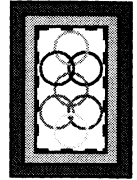
**Resources:**

US Department of Agriculture, US Department of Health & Human Services. Nutrition and your health: Dietary guidelines for Americans. Home and Garden 1995. Bulletin No. 232.

Committee on Diet and Health, National Research Council. Diet and health: Implications for reducing chronic disease risk. Washington, DC: National Academy Press; 1989.

US Department of Health and Human Services. The surgeon general's report on nutrition and health. Washington, D.C: US Government Printing Office; 1988.

## **NUTRITION CHAPTER QUIZ – PART 1: *Knowledge Questions***



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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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1. Which food groups contribute the most dietary fiber to the diet?
  - A. Foods from the bread, cereal, rice and pasta food group
  - B. Foods from the vegetable food group
  - C. Foods from the fruit food group
  - D. Foods from the milk, yogurt and cheese group
  - E. Foods from the meat, poultry, fish, dry beans, and eggs group
  
2. What words characterize the teaching of the Dietary Guidelines and the Food Guide Pyramid?
  - A. Balance
  - B. Variety
  - C. Moderation
  - D. A, B, & C
  
3. Consumption of these foods is associated with lower risk for many chronic diseases, including certain types of cancer.
  - A. Diet with plenty of grain products, vegetables, and fruits
  - B. Limited intake of vegetables
  
4. A good source of folic acid:
  - A. Water
  - B. Liver
  - C. Leafy green vegetables
  
5. You have learned that calcium is important. Which of the following is the best bet for getting the calcium you need?
  - A. Eggs
  - B. Grapefruit
  - C. Lowfat milk
  
6. The Dietary Guidelines are a set of eating recommendations for healthy Americans ages two and over.
  - A. True
  - B. False

## NUTRITION CHAPTER QUIZ

### PART 2: *Practice Changes*

Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).

Directions: Please read each practice. How often did you do these practices BEFORE and AFTER reading the material in this chapter? Circle the number that best describes how often you did each practice before and after taking this study course.

**KEY** 1. Almost Never or Never  
2. Seldom  
3. About Half the Time  
4. Often  
5. Almost Always or Always

NUTRITION PRACTICES	BEFORE the Course					AFTER the Course				
1. I try to incorporate a balance of foods into my daily diet.	1	2	3	4	5	1	2	3	4	5
2. I purchase foods that will give me variety in my diet.	1	2	3	4	5	1	2	3	4	5
3. I eat at least six servings of grains daily.	1	2	3	4	5	1	2	3	4	5
4. My diet is moderate in salt and sodium.	1	2	3	4	5	1	2	3	4	5
5. My diet is moderate in sugars.	1	2	3	4	5	1	2	3	4	5
6. I balance my diet in terms of being low in fat, saturated fat, and cholesterol.	1	2	3	4	5	1	2	3	4	5

# Section 2

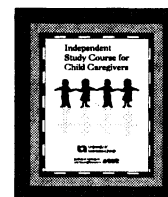
## **Food Preparation and the USDA Meal Pattern Requirements**







# Food Preparation and the USDA Meal Pattern Requirements



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*In this chapter you will learn how to:*

- ➡ *Use creditable meal patterns as a guide for menu planning for children three to five years of age.*
  - ➡ *Include vitamin A, vitamin C and iron rich foods in your menus.*
  - ➡ *Plan combinations of foods that are pleasing and acceptable to children.*
  - ➡ *Apply purchasing practices that help you get the most for your food dollar.*
  - ➡ *Use food preparation techniques that provide for acceptable and nutritious foods.*
- 
- 

- ☐ The material in this chapter is based on: Child and Adult Care Food Program: Nutrition Guidance for Child Care Centers, September 1995. Most states follow these guidelines for licensed child care programs. They are an excellent guide for feeding children in group settings. This chapter is written primarily for center personnel but may be utilized by family providers also.
- ☐ This study chapter contains nine activities which are designed to help you become more familiar with recommended food service practices for child care facilities for children three to five years of age. As you do these activities, you may have further questions beyond those covered in this study chapter. Keep track of these questions and contact your USDA Child and Adult Care Food Program (CACFP) Consultant or Child Care Resource Specialist for further information.
- ☐ For each section, we will give you a reading assignment and some related activities for you to complete. Refer to Appendix A for the answers. Meal requirements for infants will not be addressed in this chapter.

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## **ACTIVITY ONE: PLANNING FOOD FOR A DAY USING USDA MEAL PATTERNS**

### **Planning food for a day**

When planning food service for a child care facility, you should consider the total daily food needs of children. Meal pattern requirements begin for children at age one. The combination of meals and snacks (supplements) you serve will vary according to the ages of the children and how long children will stay at the site. Children who come too early (before 8 a.m.) and have eaten little food at home need a breakfast or snack soon after they arrive. Young children who stay only for 4 to 6 hours should have at least one meal, or a meal and one or more snacks.

### **Remember:**

Young children need nutritious food at frequent intervals. Serving food frequently keeps children from becoming overtired and irritable. However, it is important to schedule the food service to allow sufficient time between meals and snacks.

### **Meal patterns**

#### **Important notes**

- *Some older children* may need larger quantities of USDA meal pattern foods.
- Milk always includes whole milk, lowfat milk, skim milk, cultured buttermilk, or flavored milk made from these types of fluid milk that meet State and local standards for wholesomeness.

- Bread may be replaced with an equivalent serving of enriched or whole-grain rice or pasta or an acceptable bread product made of enriched or whole-grain meal or flour.
- You may serve an equivalent quantity of any combination of the foods that are listed under Meat and Meat Alternates. No more than 1 ounce of nuts and/or seeds may be counted in any one meal towards the meat portion requirement.
- You must offer two or more servings of different fruits or vegetables or a combination to total the amount required under Vegetable and/or Fruit for Lunch/Supper.
- For the snack:  
You may serve 4 ounces (weight) or ½ cup (volume) of plain, or sweetened and flavored yogurt to fulfill the equivalent of 1 ounce of the meat/meat alternate component.



**CAUTION:** Children under 5 are at the highest risk of choking. USDA recommends that any nuts and/or seeds be served to them in a prepared food and be ground or finely chopped. (See Appendix B.)

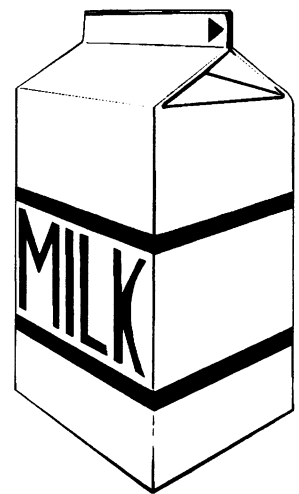
Young children master many skills during their first 5 years, and learning to eat a variety of foods is one of the most important ones. Thus, personnel who are responsible for food service in child care centers should provide children the opportunity to learn to eat and enjoy a variety of nutritious foods.

Since no one food contains all the nutrients in amounts children need for good health, it is important to select a variety of foods to supply all the nutrients children need each day. Meal pattern requirements provide a framework for planning menus that contribute to the nutritional well-being of young children.

As specified in the regulations for the Child Care Food Program, the meals or snacks must contain as a minimum, the following food components in the amounts that the meal pattern chart indicates.

**MILK** supplies most of the calcium in meals. It also supplies riboflavin, protein, vitamin A, and other nutrients.

At *breakfast*, you must provide a serving of milk. It may be used as a beverage, on cereal, or as a beverage and on cereal. At *lunch and supper* you must serve milk as a beverage, except for medical reasons which requires documentation by a medical doctor. You may offer children a choice of different types of milk, including whole milk, lowfat milk, skim milk, cultured buttermilk, or flavored milk. They all must meet State and local standards. If you serve lowfat or skim milk, it should be fortified with vitamins A and D. Milk is also a good beverage to use for *midmorning or midafternoon* snacks. If you serve only snacks, or a meal and two snacks, it is a good idea, but not mandatory, to include milk in at least one snack. You may use additional milk (fluid, evaporated, or nonfat dry) to prepare soups, puddings, baked products, and other dishes. Additional milk in these items helps improve the nutritional quality of any meal. However, you cannot credit this milk to meet the milk requirement.



**MEAT AND MEAT ALTERNATES** provide protein, iron, B vitamins (thiamin, riboflavin, niacin), and other nutrients. You must serve a meat, a meat alternate, or a meat and meat alternate combination at *lunch or supper* in the amounts the patterns in



Appendix C (Appendix C is at the end of this chapter) specify. You can use a serving of lean meat (beef, pork, lamb, veal), poultry, fish, a serving of cheese, an egg, a serving of cooked dry beans or peas, or the specified quantity of peanut butter to meet this requirement. You can use a combination of any of these foods to meet this requirement. For example, you may serve a peanut butter sandwich and a "deviled" egg as the meat alternate in a meal. Ground meat and cheese (meat and meat alternate) that are combined in a casserole also meet this requirement. These foods are usually served as the main dish at *lunch or supper*.

**ENRICHED MACARONI PRODUCTS WITH FORTIFIED PROTEIN** may be used as one-half of the meat alternate as follows: one part dry macaroni or spaghetti to one part cooked meat, poultry, fish, or cheese. For example, a main dish made with 3/4-ounce dry enriched macaroni product with fortified protein (about 1/4 to 3/8 cup, cooked) and 3/4-ounce cooked meat, poultry, fish, or cheese meets the meat or meat alternate requirement for a child age 3 through 5 years.

You may also use an enriched macaroni product with fortified protein as a bread alternate, but you cannot use it as both a meat alternate and bread alternate in the same meal.

**VEGETABLE PROTEIN PRODUCTS** are allowed as a meat alternate when you mix no more than 30 percent of the protein products (on a hydrated basis) with 70 percent uncooked meat, poultry, or fish. These products must meet nutritional specifications as established by USDA.

**CHEESE ALTERNATE PRODUCTS** may be used in combination with at least an equal amount of natural or processed cheese in a heated or cooked menu item.

To improve children's overall food intake, you should include meat or meat alternates at *breakfast* as often as possible. You may serve eggs, cheese, and peanut butter as they are, or you may use them to prepare breads, like cheese biscuits or peanut butter rolls.

Young children enjoy cheese cubes or sticks, peanut butter on bread or crackers, meat cubes, and other protein-rich foods at snack time. Snacks provide excellent opportunities for introducing unfamiliar meats or meat alternates to young children. You may also use a serving of meat or meat alternate as one of the components of a snack.

**VEGETABLES AND FRUITS** provide most of the vitamin C and a large share of vitamin A. They also supply iron, other vitamins and minerals, and fiber.



At *breakfast*, a serving of fruit or vegetable, or *full-strength* fruit or vegetable juice is required. Breakfast is an excellent time to serve vitamin C foods. These include citrus fruits and juices, like oranges or grapefruits. Other good choices are tomato juice, strawberries, or cantaloupe when they are in season. You can also serve

dried fruit. Dried apricots, raisins, and prunes provide variety in menus and are valuable sources of iron. (Food sources of vitamins A and C and iron are given in Activity Two.)

To meet program requirements for *lunch and supper* you must serve two or more vegetables or fruits at each meal. Include vegetables and fruits that are good sources of vitamins A and C and iron in at least one meal.

Fruits and vegetables that are easy to prepare and eat are practical to serve. Offer a variety of these foods. Use fresh fruits and vegetables frequently. When you use canned fruits, select ones that are packed in fruit juice, water, or a light syrup, when possible. If you serve fruit or vegetable juice *for the midmorning or midafternoon snack*, use full-strength juice. (*However, you cannot serve fruit juice if you serve milk as the only other component for the snack.*) Juice drinks with at least 50 percent full-strength juice are allowed, but discouraged, because double the volume is needed to meet program requirements. Most juice drinks contain less than 50 percent full-strength juice. Beverages made from fruit-flavored powders and syrups do not meet program requirements. Some examples of full-strength fruit and vegetable juices include:

Apple	Pineapple
Grape	Prune
Grapefruit	Tangerine
Grapefruit-orange	Tomato
Orange	Vegetable

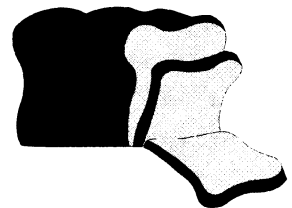
Any blend or combination of the above juices is acceptable.

Snack time is a good time to introduce new vegetables and fruits to children.

For variety, you might want to serve some fruit or vegetable (1/8 cup) with juice and toast for snacks.

**ENRICHED OR WHOLE GRAIN BREAD AND CEREALS** provide some of the B vitamins, minerals (especially iron), some protein, and calories. Whole grain products supply additional vitamins and minerals, as well as dietary fiber and variety of taste and texture.

At *breakfast*, you must offer a serving of enriched or whole grain bread, a serving of an acceptable bread product made of enriched or whole grain meal or flour, or a serving of enriched or whole grain cereal. (Acceptable breads and bread alternates are given in Activity Three later on in this chapter.) To meet the requirement for 3- through 5-year-old children, you can use a combination of bread and cereal, such as 1/4 slice of bread and about 2 level tablespoons (1/8 cup) of cooked rolled oats. Remember that the meal patterns specify a different serving size for hot cooked cereals than for cold dry cereals.



At *lunch and supper*, you must offer a serving of enriched or whole grain bread. You can meet this requirement with whole grain or enriched bread, or with a serving of an acceptable bread product made with whole grain or enriched meal or flour. A serving of enriched or whole grain products such as enriched macaroni, rice, noodles, spaghetti, corn grits, or bulgur also meet this requirement.

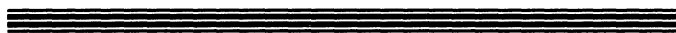
For *midmorning and midafternoon* snacks, if you choose to serve bread you must offer a serving of enriched or whole grain bread or cereal, or an acceptable bread product made of enriched or whole grain meal or flour. Hot breads such as rolls, biscuits, cornbread, muffins, or raisin bread can add variety and appeal, as well as nutrients, to snacks. (Other acceptable breads and bread alternates are given in Activity Three.) Enriched soda and graham crackers also are appropriate to serve to young children as snacks. Although most crackers are made with enriched flour, USDA CACFP does not recommend that you use "party" crackers, i.e., snack crackers, onion crackers, and the like, because it is difficult to determine portion sizes that are equivalent to ½ slice of bread. Enriched cookies do not count as bread equivalents at breakfast, lunch, or supper. However, these items are acceptable as snacks if the first ingredient is an enriched or whole grain flour. Choose a type of cookie that you may offer in reasonable number to meet the minimum requirements for the age group you are serving. USDA CACFP recommends that you serve cookies as a part of a snack no more than twice a week. A CN label is needed on the product before the fruit component can be counted.

**FORMULATED GRAIN-FRUIT PRODUCTS** meet the bread and cereal and fruit or juice requirements for breakfasts and snacks. These products must meet nutritional specifications as established by USDA CACFP. They are intended for use where kitchen facilities are not available for preparing and serving regular breakfast or snack menus.

You may serve **OTHER FOODS** that are not a part of the meal pattern requirements at all meals. These can help improve acceptability, satisfy children's appetites, and if wisely chosen, can increase the nutritional quality of meals.

A serving of butter or fortified margarine is not required. You may use butter or fortified margarine as a spread or in food preparation to provide additional calories and vitamin A. Go easy on added fat.

You can serve jams, jellies, honey, and syrup occasionally at *breakfast* to add variety. They mainly furnish calories.



## Study Questions:

1. Appendix C in this section gives the recommended foods and amounts for different ages at different meals. Creditable meals patterns are used as a guide for menu planning. Using the chart, answer these questions:
  - 1) What is the recommended serving of fluid milk at lunch for 3 to 5 year olds? \_\_\_\_\_
  - 2) For which component in the meal pattern can cheese, egg and cooked dry beans be used as alternates? \_\_\_\_\_
  - 3) How many vegetables and/or fruits are required for lunch or supper? \_\_\_\_\_
2. If you make a soup or pudding with milk, may this milk be credited to part of the milk requirement for the day? \_\_\_\_\_
3. Is a meat or meat alternate required for breakfast? \_\_\_\_\_
4. What two vitamins are provided by vegetables and fruit? \_\_\_\_ & \_\_\_\_
5. Do enriched cookies count as bread equivalents at breakfast, lunch, or supper? \_\_\_\_\_

Appendix D in this section provides additional meal planning tips.

See Appendix A in this section for the answers to these questions.

## **ACTIVITY TWO: VITAMIN A, VITAMIN C AND IRON**

As you learned in Activity One, vitamins A and C and the mineral iron are important components of a nutritious diet.

Review these food sources of vitamins A and C and iron. It's important that you serve good sources of these nutrients frequently. Your consultant will have specific guidelines on how frequently you are to include these in menus.

### **Some foods for vitamin A, vitamin C, and iron**

#### **Vitamin A.**

##### **Vegetables**

Asparagus  
Broccoli  
Carrots  
Kale  
Mixed vegetables  
Peas and carrots  
Pumpkin

Spinach  
Squash-winter  
Sweet potatoes  
Tomatoes  
Tomato juice, paste or  
puree  
Turnip greens  
Vegetable juices

##### **Fruits**

Apricots  
Cantaloupe  
Cherries, red sour  
Nectarines  
Peaches (not canned)  
Plums, purple (canned)  
Prunes

#### **Vitamin C.**

##### **Vegetables**

Asparagus  
Broccoli  
Brussels sprouts  
Cabbage  
Cauliflower  
Chili peppers  
Collards  
Kale  
Okra

Peppers, sweet  
Potatoes, white  
Spinach  
Sweet potatoes  
Tomatoes  
Tomato juice, paste or  
puree  
Turnip greens  
Turnips

##### **Fruits**

Cantaloupe  
Grapefruit  
Grapefruit juice  
Oranges  
Orange juice  
Raspberries  
Strawberries  
Tangerines



## **Iron.**

### **Vegetables**

Asparagus (canned)  
Beans—green, wax, lima  
(canned)  
Bean sprouts  
Beets (canned)  
Broccoli  
Brussels sprouts  
Dark green leafy—beet  
greens, chard,  
collards, kale, mustard  
greens, parsley, spinach,  
turnip greens

Parsnips  
Peas, green  
Potatoes (canned)  
Sauerkraut (canned)  
Squash (winter)  
Sweet potatoes  
Tomato juice, paste, puree,  
sauce  
Tomatoes (canned)  
Vegetable juice (canned)

### **Fruits**

Apricots (canned)  
Cherries (canned)  
Dried fruits—apples,  
apricots, dates,  
figs, peaches,  
prunes, raisins  
Grapes (canned)

### **Meat and Meat Alternates**

Dried beans and peas  
Eggs  
Meat in general, especially liver and  
other organ meats  
Peanut butter  
Shellfish  
Turkey

### **Bread and Bread Alternates**

All enriched or whole grain bread  
and bread alternates



### **Study Questions:**

1. Circle each food that you currently offer on your menu that is a source of vitamin A, C or iron.
2. Put an asterisk (\*) in front of any additional foods you might try within the next month for vitamin A, C or iron.

## ACTIVITY THREE: ACCEPTABLE BREAD AND BREAD ALTERNATES

You learned about the role of bread products in Activity One. Review the following information about acceptable bread and bread alternates.

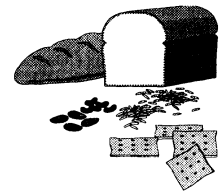
### Acceptable bread and bread alternates

#### Important notes

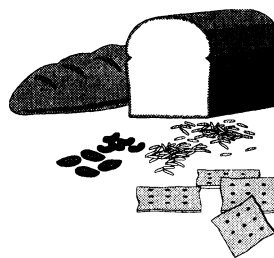
- All products must be made of whole grain or enriched flour or meal.
- Serving sizes listed are specified for children under 6 years of age.
- A "full" serving (defined below) is required for children 6 years of age and older.
- USDA recommends that cookies, granola bars, and similar foods be served in a snack no more than twice a week. They may be used for a snack only when:
  - ☛ Whole grain or enriched meal or flour is the predominant ingredient as specified on the label or according to the recipe; and the total weight of a serving for children under 6 years of age is a minimum of 18 grams (0.6 oz.) and for children 6 years and over, a minimum of 35 grams (1.2 oz.).
- Doughnuts and sweet rolls are allowed as a bread item in breakfasts and snacks only.
- French, Vienna, Italian, and Syrian breads are commercially prepared products that often are made with unenriched flour. Check the label or manufacturer to be sure the product is made with enriched flour.
- The amount of bread in a serving of stuffing should weigh at least 13 grams (0.5 ounces).
- Whole grain, enriched, or fortified breakfast cereals (cold, dry, or cooked) may be served for breakfast or snack only.

### Group A

When you obtain these items commercially, a full serving should have a minimum weight of 25 grams (0.9 ounces). The serving sizes specified should have a minimum weight of 13 grams (0.5 ounces).



<b>Item</b>	<b>Serving Size</b>
Bagels	½ bagel
Biscuits	1 biscuit
Boston brown bread	½ serving
Breads, sliced, all types (white, rye, whole wheat, raisin, quick breads, etc.)	½ slice
Buns and sweet buns	½ bun
Cornbread	1 piece
Croissants	½ croissant
Doughnuts (all types)	½ doughnut
Egg roll/wonton wrappers	1 serving
English muffins	½ muffin
French, Italian, or Vienna bread	½ slice
"Fry" bread	½ piece
Muffins	½ muffin
Pizza crust	1 serving
Pretzels, Dutch (soft)	1 pretzel
Rolls and sweet rolls	½ roll
Stuffing (bread)	½ serving
Syrian bread (pita)	½ round



## **Group B**

When you obtain these items commercially, a full serving should have a minimum weight of 20 grams (0.7 ounces). The serving sizes specified below should have a minimum weight of 10 grams (0.4 ounces).

<b>Item</b>	<b>Serving Size</b>
Batter and/or breading	.4 ounces
Bread sticks (dry)	2 sticks
Chow mein noodles	1/4 cup
Graham crackers	2 squares
Melba toast	3 pieces
"Pilot" bread	1 piece
Rye wafers (whole-grain)	2 wafers
Saltine crackers	4 squares
Soda crackers	2 crackers
Taco shells (whole, pieces)	1 shell
Zwieback	2 pieces

### **Group C**

When you obtain these items commercially, a full serving should have a minimum weight of 30 grams (1.1 ounces). The serving sizes specified below should have a minimum weight of 15 grams (0.5 ounces).

<b>Item</b>	<b>Serving Size</b>
Dumplings	½ dumpling
Hush puppies	½ serving
Meat or meat alternate pie crust	½ serving
Meat or meat alternate turnover crust	½ serving
Pancakes	½ pancake
Popovers	½ popover
Sopaipillas	½ serving
Spoonbread	½ serving
Tortillas	½ tortilla
Waffles	½ serving



### **Group D**

When you serve these items, a full serving should have a minimum of ½ cup cooked product. The serving sizes specified below are the minimum half servings of cooked product.

<b>Item</b>	<b>Serving Size</b>
Barley	1/4 cup
Bulgur	1/4 cup
Corn grits	1/4 cup
Lasagna noodles	1/4 cup
Macaroni or spaghetti	1/4 cup
Noodles (egg)	1/4 cup
Ravioli (paste only)	1/4 cup
Rice (white or brown)	1/4 cup



### **Study Question:**

1. Look at your menus for the last two days and check the serving sizes for breads. Do they correspond to the previous recommendations?

## ACTIVITY FOUR: PLANNING MENUS AND SUGGESTED MENUS FOR CHILDREN AGES THREE TO FIVE

### Planning menus

Creative menu planning calls for originality, imagination, and a spirit of adventure. Plan menus that are appealing, economical, and suited to available facilities and personnel, and plan the menus for the children that you serve. Investigate the ethnic and cultural background of program participants and try to include foods that will be acceptable to the groups you are serving.

Plan menus two weeks to a month ahead of the time that you will serve them. You need to plan them this far in advance to accurately purchase food, control costs, and schedule food preparation.

Cycle menus lasting two or three weeks are one way to provide variety and avoid repetition in food service. The cycle does not always have to begin on the first day of the week. Beginning the menu cycle on Wednesday, Thursday, or any other day is just as acceptable and helps avoid having the same menu on the same day of each week.

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### Appetite appeal.

Variety is the key to appetizing meals for children and adults alike. The food you serve should have variety: in *form* (cooked and raw), *size and shape* (round, sticks, cubed, etc.), *color*, *texture* (crisp and soft), and *flavor* (strong or mild, sweet or sour). Also, plan for a variety of components for the snacks. See Appendix E at the end of this chapter for a "Meal Evaluation Checklist."



Serve foods in forms young children can manage easily, such as bite-sized pieces. Serve "finger foods"—vegetable sticks or wedges of fresh fruit—often. Foods they can pick up with their fingers are easy to handle. Here are some possible finger foods:

Apple wedges	Grapefruit sections (seeded)
Banana slices	Green pepper sticks
Berries	Meat cubes
Cabbage wedges	Melon cubes
Carrot sticks	Orange sections
Cauliflowerets	Pitted plums
Celery sticks*	Pitted prunes
Cheese cubes	Raisins
Dried peaches	Tangerine sections
Dried pears	Tomato wedges
Fresh peach wedges	Turnip sticks
Fresh pear wedges	Zucchini sticks
Fresh pineapple sticks	

\* May be stuffed with cheese or peanut butter

- 
- 
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>⇒ Try to include foods with contrasting colors. The natural red, green, and orange colors of fruits and vegetables add eye appeal. Colorful foods should be used in combination with those of little color. Mashed potatoes, green beans, carrot sticks, and tomato wedges make an appealing color combination.</li> <li>⇒ In a hot meal, try to include at least one cold food. In a cold meal, try to include at least one hot food.</li> <li>⇒ Use crisp, firm foods in combination with soft, creamy ones.</li> <li>⇒ Use a combination of mild flavors with strong ones.</li> </ul> | <ul style="list-style-type: none"> <li>⇒ Include food combinations that are most acceptable to children.</li> <li>⇒ Plan special menus for national holidays, children's birthdays, and other special days at the center.</li> <li>⇒ Plan to use foods in season. Most fresh fruits and vegetables are plentiful during summer months. This is a good time to serve these foods.</li> <li>⇒ Consider regional, cultural, and personal food preferences of children when planning menus.</li> <li>⇒ Try to have the menus reflect children's food preferences, not just the personal preferences of the menu planner.</li> </ul> |
|---|---|

### **Avoid:**

- ☛ Serving the same food on consecutive days; for example, ground beef in meat loaf on Monday and in "Sloppy Joes" on Tuesday.
- ☛ Serving the same food on the same day of the week. Every Monday should not be "soup and sandwich day" and every Friday should not be "fish day."
- ☛ Preparing two foods in the same way in the same meal; for example, chicken a la king and creamed corn.
- ☛ Preparing foods in the same way each time they are served.

### **Cost comparisons**

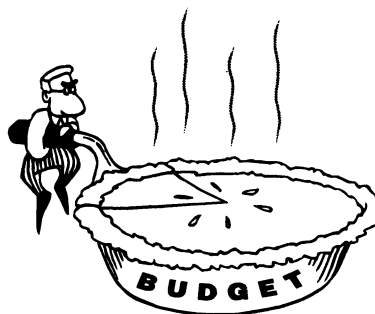
Calculate how much it costs to serve the foods in the file of recipes. Estimates that you base on the cost of the main ingredients, not counting the cost of seasonings, are accurate enough for planning purposes. Recalculate the cost of recipes only when there is a big change in the price of a major ingredient. You can then compare the cost of foods in different recipes. For example, you can compare the cost of spaghetti and meatballs with the cost of turkey and dressing, and a half orange with a glass of orange juice. Also, you can estimate the cost of the total menu. If this cost is too high for the food budget, you can replace some of the foods in the menu with less expensive ones.

### **Food Cost**

Most centers have a limited amount of money they can spend for food in a given period—a month, for example. The food service manager has the responsibility of staying within this limit while planning appetizing and nutritious meals. Here are some tips on controlling food costs.

### **Recipes**

Use recipes that yield a given amount of a good quality product. A file of such recipes (standardized recipes) that are adjusted to provide the number of servings required in the center is basic to cost control. The file should include the quantities of fresh and processed foods—vegetables and fruits for example—that provide the required servings.



## **Finding Bargains**

Use foods that are in plentiful supply on the local market to help keep your food costs low. Check food prices frequently with local vendors to determine the cost of foods. Plan to use those foods on the menu that are a bargain locally.

---

## **Facilities**

Plan meals that you can prepare and serve with the facilities and equipment that are available.

Consider the oven, surface-cooking, refrigeration, and freezer space.

Consider the numbers and kinds of serving tools and dishes that you have available to serve each meal.

---

## **Personnel**

Plan meals that your employees can prepare in the allowed time.

Consider the amount of hand preparation you need for each menu.

Schedule employees' time so that you can use their particular skills to your best advantage.

Balance the workload from day to day and week to week.

## **Menu planning—the total job**

Good menu planning goes beyond the listing of specific foods that you include in daily meals. A menu planning worksheet can help simplify the total job.

Keep daily records of the menus served. Design a worksheet to record the menus that you have planned. (See sample worksheet in Appendix I in this section.)

Select the specific recipes you use to prepare the different menu items.

Determine the serving size you need.

Evaluate the menus from the standpoint of meeting meal requirements, as well as requirements for quality and quantity.

Estimate the number of meals you will prepare.

Adjust the recipes you select to provide the necessary number of servings.

Calculate the cost of the meals.

Prepare purchase orders relative to food inventories.

Schedule production time and develop work schedules.

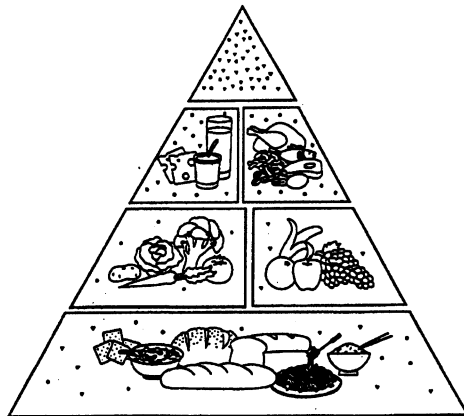


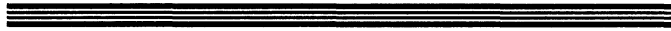
**REMEMBER:**

A key to good management is to carefully and systematically plan menus well in advance.

**Suggested menus for young children****Important notes.**

- ◆ These menus are based on meal requirements for children three through five years of age. For amounts of food to serve other children, see Appendix C.
- ◆ Make cocoa with fluid milk: whole, skim, or lowfat.
- ◆ Rolls, breads, muffins, cookies and crackers must be made with enriched flour.
- ◆ You may meet the meat and meat alternate requirement by serving an equivalent quantity of any combination of foods that are listed under Meat and Meat Alternates.
- ◆ Where amounts of a food are not specified, you may use any amount. Try serving a small amount for learning purposes.





## Study Questions:

(See Appendix A in this section for the answers to these questions.)

1. What is one benefit of using cycle menus? \_\_\_\_\_
2. Take a past menu for two days and check it with the "Menu evaluation checklist" in Appendix E.
3. What are three tips for controlling food costs?
  - 1)
  - 2)
  - 3)
4. Circle the menu combination that would best balance equipment and personnel.

### Menu A

Oven-browned chicken leg  
Baked potato  
Pumpkin custard  
Baking powder biscuits

### Menu B

Meat loaf  
Mashed potato  
Green peas and carrots  
Whole wheat bread

5. Look at the following daily menus and circle those that you might like to prepare for your center.

### **Sample menus for children 3 - 5 years of age**

#### **1st Day:**

- Breakfast:** Orange juice – ½ cup  
Biscuit – 1  
Milk – ¾ cup  
Baked scrambled egg– 2 tbsp.
- A.M. Snack:** Milk – ½ cup  
Cinnamon toast – ½ slice
- Lunch/Supper:** Meat loaf – 1 slice (1½ oz. meat)  
Green beans – ¼ cup  
Pineapple cubes – ¼ cup  
Bread – ½ slice  
Milk – ¾ cup
- P.M. Snack:** Mixed fruit juice – ½ cup  
Celery sticks with peanut butter – 1 tbsp.

#### **2nd Day:**

- Breakfast:** Sliced banana – ½ cup  
Cornflakes – ⅓ cup  
Milk – ¾ cup
- A.M. Snack:** Tomato juice – ½ cup  
Cheese stick – ½ oz.
- Lunch/Supper:** Baked chicken (1-1½ oz. meat)  
Mashed potatoes – ¼ cup  
Peas – ¼ cup  
Carrot stick  
Roll – small  
Milk – ¾ cup
- P.M. Snack:** Milk – ½ cup  
Oatmeal cookie – 1

### **3rd Day:**

- Breakfast:** Apricot halves – ½ cup  
Blueberry muffin – ½ muffin  
Milk – ¾ cup
- A.M. Snack:** Milk – ½ cup  
Dry cereal – ⅓ cup
- Lunch/Supper:** Homemade chicken vegetable soup – ½ cup (1 oz. meat, ¼ cup vegetable)  
Peanut butter & jelly sandwich – ¼ (1 tbsp. peanut butter)  
Green pepper stick  
Sliced peaches – ¼ cup  
Milk – ¾ cup
- P.M. Snack:** Apple juice – ½ cup  
Soft pretzel – 1

### **4th Day:**

- Breakfast:** Fruit cup – ½ cup  
Hard cooked egg – half  
Toast – ½ slice  
Milk – ¾ cup
- A.M. Snack:** Orange juice – ½ cup  
Toasted raisin bread – ½ slice
- Lunch/Supper:** Spaghetti and meat sauce – ½ cup (1½ oz. meat)  
Peas – ¼ cup  
Green salad – ¼ cup  
French bread – ½ slice  
Milk – ¾ cup
- P.M. Snack:** Milk – ½ cup  
Peanut butter cookie - (large enough to meet CACFP requirements)  
Turnip stick

**5th Day:**

**Breakfast:** Grapefruit sections – ½ cup  
Rolled oats – ¼ cup  
Milk – ¾ cup

**A.M. Snack:** Grape juice – ½ cup  
Enriched saltine crackers – 4  
Peanut butter

**Lunch/Supper:** Fish sticks – 3 (1½ oz. fish)  
Spinach – ¼ cup  
Fresh pear half – ¼ cup  
Corn bread – 1 square  
Milk – ¾ cup

**P.M. Snack:** Cottage cheese dip – ¼ cup with zucchini sticks  
Melba toast – 3

**6th Day:**

**Breakfast:** Purple plums – ½ cup  
Cheese toast – ½ slice  
Milk – ¾ cup

**A.M. Snack:** Grapefruit juice – ¾ cup  
Carrot sticks – 3  
Whole grain rye wafers – 2

**Lunch/Supper:** Swiss steak cubes – ¼ cup (1½ oz. meat)  
Mixed vegetables – ¼ cup  
Orange sections – ¼ cup  
Rice – ¼ cup  
Milk – ¾ cup

**P.M. Snack:** Milk – ½ cup  
Fruit bar – 1 small

## ACTIVITY FIVE: TIPS ON FOOD PURCHASING

### Tips on food purchasing

Getting the most for the food dollar takes careful planning and buying experience. Careful use of food buying power will not only help control food cost but also reduce waste and help upgrade the quality of meals.

Success in food buying means getting foods of good quality in the proper quantities at the best possible prices.

Quantities to buy depend on the number of children attending the center, the menus and recipes you use, the amount and kind of storage space you have available, the inventory on hand, the perishability of the food, and the length of time the order will cover.



### Where to buy.

- ☞ Check the food companies (vendors) or stores in the area. Which offers foods that you use frequently? Which offers the service you need—prompt and frequent delivery, credit, discounts? Which offers quality food at a reasonable price?
- ☞ Buy from suppliers that provide the best quality food at the most reasonable prices.
- ☞ Follow a strict code of business ethics when purchasing foods for the center. Know what the food suppliers expect, and let them know what you expect of them.

### What to buy.

How you plan to use the food determines the form and quality you should buy. Consider products' style, type, size, count, container, and packaging medium. Read labels. Know what the product is and inspect it before you buy it and upon delivery. Whenever possible, buy foods that are federally graded.

- ☞ Buy federally inspected meats and poultry. Government inspection insures that meat and poultry were produced from animals or fowl that were free from disease at the time of slaughter and were prepared under strict sanitary conditions.
- ☞ Purchase only pasteurized, Grade A milk and milk products.
- ☞ Purchase federally inspected seafood whenever possible. This assures top quality products.

- ☞ Purchase bread and pastry that is properly wrapped or kept in paper-lined containers with covers to keep bread and pastry fresh and wholesome.
- ☞ Purchase frozen foods that have been kept hard frozen. Do not accept delivery of frozen foods that are, or have been, thawed or partially thawed.
- ☞ Purchase perishable foods that have been kept under refrigeration.

Develop standards for all food purchases. Standards describe the food to be purchased. State or write clear standards for each food item you order. Let the vendor know the standards. Once you receive the order, check to see that the food meets the standards.

### **How much to buy**

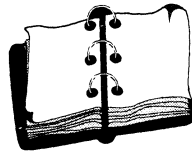
- ☞ Calculate the quantities of food you need to serve the children and adults eating at the center.
- ☞ Consider the number of servings per pound or per can for each item you will purchase. Select those food items that best suit your needs.
- ☞ Remember storage facilities. Buy only quantities that you can store properly. Consider food's "keeping" qualities in relation to storage facilities you have available. Buy those that best fit the situation.

### **When to buy**

- ☞ Decide when to buy each type of food. Bread, milk, and perishable foods, such as meat, fish, poultry, fresh and frozen produce, may be daily or if you have enough storage space, two deliveries a week may be adequate. Purchase canned foods and staple groceries monthly or twice monthly, depending on storage space.

### **Keep records of food purchases**

Record the date you ordered the food, the date you received it, its condition on arrival, when you used it, and how much you used. Be sure to record the price you paid. These records can be a help in planning future purchases and menus.



### **Remember:**

The food you serve can only be as good as the quality of the foods you purchase.



### **Study Questions:**

This section featured several food buying practices marked with a small hand symbol. Do the following:

1. Put a check (✓) by those you are currently doing.
2. Put an asterisk (\*) by any others you could do.



## ACTIVITY SIX: FOOD PREPARATION

### Food preparation

Serving acceptable and nutritious foods depends not only on good planning, selection, and storage of food, but also on how you prepare and cook it.

The key to good food preparation is to carefully follow standardized recipes. A standardized recipe specifically describes the amount of ingredients and the method of preparation you need to consistently produce a high-quality product. You will need to make sure that your recipes meet the program meal requirements.

#### **Food preparation tips.**

- ◆ Trim fresh fruits and vegetables carefully to conserve nutritive value. Remove damaged leaves, bruised spots, skins, and inedible parts. You lose nutrients when tissues are bruised. To avoid bruising, use a sharp blade when trimming, cutting, or shredding.
- ◆ Cook vegetables only until they are tender and in just enough water to prevent scorching.
- ◆ Cook root and tuber vegetables in their skins to help retain their nutritive value.
- ◆ Cook meat, fish, and poultry according to the cut or type that you purchased. The less expensive cuts and grades of lean meat contain as much food value as higher priced ones. The cheaper cuts require greater skill in cooking and seasoning to be acceptable.
- ◆ When you roast meat and poultry, skim fat from drippings before making gravies. When you stew meat, skim the fat from the broth and use the broth in soups. This will have some nutrients that you otherwise would lose during cooking.
- ◆ Avoid cooking cereals in too much water. You waste valuable nutrients when you drain off the cooking water and rinse the cereals.

## Study Questions:

The following activity expands on some of the tips covered in this section. Do the following:

1. Put a check (✓) by those you are currently doing.
2. Put an asterisk (\*) by any others you could do.

### Vegetables:

- 1) Trim fruits and vegetables sparingly to conserve nutritive value.
- 2) Cook vegetables until just tender and serve immediately.
- 3) Boil vegetables in as little water as possible.
- 4) Microwave vegetables until tender crisp. (tastes like fresh)
- 5) Steam vegetables by placing in a basket over boiling water.
- 6) Stir-fry vegetables by cooking in a small amount of oil.

### Fruits:

- 1) Wash fresh fruits under cold, running water whether served raw or cooked.
- 2) Wash berries in a colander under gently running water.
- 3) When you pare or peel apples or pears, make parings as thin as possible.
- 4) To loosen the peels of peaches and apricots, dip the fruit into boiling water for about 45 seconds, then into cold water. You can then grasp the loosened skin of the fruit. Peel gently, using the dull edge of a knife.
- 5) Some fruits -- apples, peaches, pears, and bananas -- turn brown if allowed to stand after they have been cut or peeled. To minimize discoloration, dip these fruits into citrus fruit juice (lemon, lime, orange, or grapefruit) or pineapple juice.

### Milk:

- 1) Heat milk at a low temperature. Do not let it boil.
- 2) Stir constantly when heating milk mixtures thickened with flour or cornstarch.
- 3) Bake casseroles containing milk at a low oven temperature (about 325 degrees F.)
- 4) Prevent tomato soup from curdling by thickening the milk first and then adding tomato juice shortly before serving. Or, make a thickened tomato sauce and add it to hot milk just before serving.

### Eggs:

- 1) Cook eggs with low to moderate heat.

### Cereals and Grains:

- 1) Cook cereals according to the directions on the package.
- 2) Do not rinse rice -- this removes valuable nutrients.

### Meat and Poultry:

- 1) Cook red meats until gray or brown throughout (no pink).
- 2) Cook poultry until the juices run clear.
- 3) Cook fish until it flakes with a fork.
- 4) Cook meat at 325 to 350 degrees F. to keep it tender, juicy and flavorful. Using this temperature range also helps prevent shrinkage.
- 5) Frozen meat need not be thawed before cooking; however, extra cooking time may be required.
- 6) Cut visible fat from meat before cooking. Drain fat from cooked ground beef.



## **ACTIVITY SEVEN: SANITATION**

Sanitation is one of the most important aspects of good food service. One error or one instance of carelessness can cause the spread of a disease with drastic consequences.

Just as it is important to feed children nutritious, body-building meals, it is equally important that the meals be free from substances that may cause illness. Nutrition and sanitation must go hand-in-hand in any good food service operation. Consider sanitation when you select, store, and serve food.

### **GOOD SANITATION REQUIRES:**

#### **Clean utensils and equipment**

- ◆ Be sure all eating and drinking utensils are properly handled. Do not touch surfaces on which food is served or surfaces which come in contact with the mouth.
- ◆ Do not use cracked or chipped utensils and dishes.
- ◆ Keep all appliances and equipment clean and in good working order.
- ◆ Use only dishwashing equipment that meets local health agency regulations.
- ◆ Request that local health and fire departments inspect center facilities at least once a year.



#### **Clean and wholesome food**

- ◆ Purchase foods such as pasteurized milk, inspected, stamped meat, and government-approved shellfish to help insure food safety.
- ◆ Examine food when it is delivered to make sure it is not spoiled, dirty, or contaminated with insects.

### **Correct storage and cooking temperatures**

- ◆ Use food supplies on a "first in, first out" basis. Store foods so you use older supplies first. This helps prevent spoilage.
- ◆ Protect foods such as flours, cereals, cornmeal, sugar, dry beans and peas from rodents and insects by storing them in tightly covered containers.
- ◆ Keep cold foods cold (40° F or below) and keep hot foods hot (cook and hold at 140° F or above).
- ◆ Don't overload containers for heating and cooling. Use shallow pans so food will heat or cool quickly.
- ◆ Throw out portions of foods that are served but not eaten.

### **Clean and healthy workers**

- ◆ Be sure that all food service workers meet the health standards set by local and State health authorities.
- ◆ Do not let people with infected cuts or sores, colds, or other communicable diseases prepare or serve food.

### **Safe food handling practices**

- ◆ Wash your hands thoroughly with soap and water before handling foods or utensils. Repeat after every visit to the restroom.
- ◆ Wash your hands, utensils, and work surfaces thoroughly after contact with raw eggs, fish, meats, and poultry.
- ◆ Thoroughly wash all fruits and vegetables you serve raw, such as lettuce, celery, carrots, apples, and peaches.
- ◆ Cook foods properly, following standardized procedures and recipe directions.

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## **Study Questions:**

This section featured several sanitation practices marked with a small black diamond. Do the following:

1. Put a check (✓) by those you are currently doing.
2. Put an asterisk (\*) by any others you could do.

For further information refer to Appendix F in this section- Focus on: Slow Cooker Safety; Appendix G in this section - A Microwave Handbook; and Appendix H in this section - Focus on: Cutting Board Safety.

## **ACTIVITY EIGHT: MAKE MEALTIME A HAPPY TIME**

### **Make mealtime a happy time**

Feeding young children can be fun if you know:

- ✎ What foods children should have.
- ✎ How to bring children and foods together happily.

Pleasant eating experiences are as important as nutritious foods. They provide pleasant associations with food and eating. Food habits and attitudes that form during the preschool years remain with most people throughout life.

- ✎ Try to understand each child's personality and reaction to foods.
- ✎ Children need to do as much for themselves as they are able to do. First efforts may be awkward, but encourage them. These efforts are a step toward growth.
- ✎ Children may be in no hurry to eat once the first edge is taken off their hunger. They do not have adults' sense of time. Urging them to hurry may spoil their pleasure in eating.
- ✎ Most 1-year-old children can handle bite-sized pieces of food with their fingers. Later they can handle a spoon by themselves. Since they are growing slower than infants, they may be less hungry. They may be choosy

and refuse certain foods. Don't worry or force them to eat. Keep on offering different foods.

- ✎ Sometimes children 3 through 5 years old go on food "jags." They may want two or three servings of one food at one meal. Given time they will settle down and eat a normal meal. The overall pattern from week to week and month to month is more important.

### **Introducing new foods**

Introduce only one new food at a time. Offer a very small amount at first, at the beginning of the meal, so that children may become used to new flavors and textures. Allow plenty of time for children to look at and examine the foods.

Do not try to introduce a new food when children do not feel well or are cross and irritable. If you offer a new food and children turn it down, don't make a fuss. Offer the food again a few days later. If children do accept a new food, let them try it again soon so they can become familiar with it.

### **Encouraging favorable food attitudes and good eating habits**

- ✎ Use a bright, attractive, well-ventilated, and comfortable room for serving meals.
- ✎ Have a physical setting—tables, chairs, dishes, glasses, silverware, and serving utensils—that suits young children.

- ✎ Provide a quiet time just before meals so that the atmosphere can be friendly and relaxed at mealtime.
- ✎ Encourage children to participate in the food service by setting the table, by helping to bring the food to the table, or by cleaning their own space after eating.
- ✎ Avoid delays in food service so the children will not have to sit and wait.
- ✎ Set a good example. Young children sense adult attitudes toward food.
- ✎ At the table, create an atmosphere of acceptance and respect for each child so that the meal will be both nutritionally and emotionally satisfying.
- ✎ Serve foods family style. An adult should eat at the table with the children. Children should be encouraged to take second helpings, if that is necessary to insure that they get all the required quantities.
- ✎ Arrange food on plates to make meals nutritious, interesting, and attractive from the standpoints of color, texture, flavor, and temperature.
- ✎ Permit children to make some food choices, and recognize when their food needs have been satisfied. Include children in meal planning. Children become knowledgeable and eager to try foods if they help plan the menu.
- ✎ Use new foods frequently, but introduce them one at a time with familiar foods, and have only "taste-size" portions until the children accept the food. Snack time is a good time to taste-test new foods.
- ✎ Temperature extremes are unpleasant to most young children. Usually a child does not object to lukewarm food. Beverages are often more pleasing to a child when served at room temperature, rather than ice cold or piping hot.
- ✎ Deemphasize the "clean plate" idea. Children may rebel if you force them to eat unwanted food. Children may learn to overeat if they are told too often to finish their meals.
- ✎ Do not let children use food to gain attention—for example, if they refuse to eat or make special demands.

### Study Questions:

This section featured tips for happy mealtimes. Do the following:

1. Put a check (✓) by those you are currently doing.
2. Put an asterisk (\*) by any others you could do.



## **ACTIVITY NINE: MENU PLANNING USING WORKSHEETS**

### **Menu planning worksheets: Steps for using daily menu planning worksheet for child care food program**

Refer to the forms in Appendix I, J, and K for planning menus. Appendix I gives forms for "weekly menu planning." Appendix J helps you plan the amount of food needed through a "daily menu planning worksheet." Appendix K gives a sample completed "daily menu planning worksheet." Following is a description of how to use columns 1 thru 6 on the "daily menu planning worksheet" in Appendix J.

#### **Column 1**

Enter date of meal service. The meal patterns are listed for Breakfast, A.M. Snack, Lunch, P.M. Snack, and Supper. Note that two of the four food components must be used in the A.M. or P.M. Snack. You may not serve juice when you serve milk as the only other component.

#### **Column 2**

Menu—Plan menus for each meal that you serve using the guide in Appendix C. Plan menus in advance. USDA recommends planning 2 weeks to a month ahead of the time you serve the meals. First, plan a week's menus on a Weekly Menu Planning Worksheet. Then plan the details on a Daily Planning Worksheet. If you need a recipe for a menu item, record the name and/or number of the recipe along with the menu item (see sample).

#### **Column 3**

Size of serving—use the guide in Appendix C to determine the size of serving for the appropriate age group. The portions used in the example are for children 3 through 5 years of age.

#### **Column 4**

Number To Be Served—Determine the number that you will serve based on average daily attendance.

#### **Column 5**

Food Items Used—List each food item that contributes to meal requirements as listed in Column 1.

#### **Column 6**

Amounts Used—Indicate the amount of each food item (listed in Column 5) that you use to prepare each meal. Determine how much food you need to buy to meet USDA CACFP requirements.

### **Study Questions:**

1. Use what you've learned to plan one week's menus using a copy of the form in Appendix I. Refer to the "menu evaluation checklist" in Appendix E.
2. Take one day's menus and use the "daily menu planning worksheet" in Appendix J. Refer to the completed example in Appendix K.

# **FOOD PREPARATION AND THE USDA MEAL PATTERN REQUIREMENT QUIZ**

## **Part 1: Knowledge Questions**



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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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1. Creditable meals patterns are used as a guide for menu planning.
  - A. Yes
  - B. No
2. Two servings from the fruit and/or vegetable components are recommended for lunch/supper.
  - A. Yes
  - B. No
3. Vitamins B and D are two important nutrients found in fruits and vegetables.
  - A. Yes
  - B. No
4. Enriched cookies can be counted as a bread equivalent at lunch.
  - A. Yes
  - B. No
5. Wash fresh fruits under cold, running water whether served raw or cooked.
  - A. Yes
  - B. No

## FOOD PREPARATION AND THE USDA MEAL PATTERN REQUIREMENT QUIZ

### Part 1: PRACTICE CHANGES

---

**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

---

<p>Directions: Please read each practice. How often did you do these practices <b>BEFORE</b> and After reading the material in this chapter. Circle the number that best describes how often you did each practice before and after taking this study course.</p>	<p><b>KEY</b></p> <p>1. Almost never or never  2. Seldom  3. About half the time  4. Often  5. Almost always or always</p>	
PRACTICES	BEFORE	AFTER
1. I feel confident/comfortable using creditable meal patterns as a guide for menu planning.	1 2 3 4 5	1 2 3 4 5
2. I try to incorporate vitamin A, vitamin C and iron rich foods in my menus.	1 2 3 4 5	1 2 3 4 5
3. I plan combinations of foods that are pleasing and acceptable to children.	1 2 3 4 5	1 2 3 4 5
4. I use purchasing practices that help me get the most for my food dollar.	1 2 3 4 5	1 2 3 4 5
5. I use food preparation techniques that provide for acceptable and nutritious foods.	1 2 3 4 5	1 2 3 4 5

## **APPENDIX A**

### **ANSWERS TO STUDY GUIDE QUESTIONS**

#### **ACTIVITY ONE: PLANNING FOOD FOR A DAY WITH MEAL PATTERNS**

1. 1) 3/4 cup  
2) meat  
3) 2
2. No
3. No
4. A & C
5. No

#### **ACTIVITY FOUR: PLANNING MENUS AND SUGGESTED MENUS FOR YOUNG CHILDREN**

1. - variety  
- control food costs  
- accurately purchase food  
- schedule food preparation  
- reduces the amount of time spent in menu planning
3. - recipes  
- cost comparisons  
- finding bargains
4. Menu B is the best answer. Menu A has all oven foods.

## APPENDIX B

### YOU CAN HELP PREVENT CHOKING

Young children are at the highest risk of choking on food and remain at high risk until they can chew better. Choking kills more young children than any other home accident. How can you make eating safer for young children?

---

#### Watch children during meals and snacks to make sure they:

- ☐ Sit quietly.
  - ☐ Eat slowly.
  - ☐ Chew food well before swallowing.
  - ☐ Eat small portions at one time.
- 

#### Fix table foods so they are easy to chew:

- ☐ Grind up tough foods.
  - ☐ Cut food into small pieces or thin slices.
  - ☐ Cut round foods, like hot dogs, into short strips rather than round pieces.
  - ☐ Take out all bones from fish, chicken, and meat.
  - ☐ Cook food until it is soft.
  - ☐ Take out seeds and pits from fruit.
- 

The foods which are popular with young children are often the ones which have caused choking.

---

#### Foods that may cause choking:

- ☐ Firm, smooth, or slippery foods that slide down the throat before chewing, like:
    - hot dogs
    - hard candy
    - peanuts
    - grapes
  - ☐ Small, dry, or hard foods that are difficult to chew and easy to swallow whole, like:
    - popcorn
    - nuts and seeds
    - potato and corn chips
    - small pieces of raw carrots
  - ☐ Sticky or tough foods that do not break apart easily and are hard to remove from the airway like:
    - peanut butter
    - tough meat
    - raisins and other dried fruit
-

## APPENDIX C

### MEAL PATTERN FOR CHILDREN IN THE CHILD CARE FOOD PROGRAM

AGE	1 - 2	3 - 5	6 - 12/ ADULTS
<b>BREAKFAST</b>			
Fluid Milk	½ cup	¾ cup	1 cup
Juice or fruit or vegetable	¼ cup	½ cup	½ cup
Bread or bread alternate or cold dry cereal or cooked cereal	½ slice (or ½ oz) ¼ cup (or ⅓ oz) ¼ cup	½ slice (or ½ oz) ⅓ cup (or ½ oz) ¼ cup	1 slice (or 1 oz) ¾ cup (or 1 oz) ½ cup
<b>SNACK</b> (select 2 of these 4 components)			
Fluid Milk	½ cup	½ cup	1 cup
Juice or fruit or vegetable	½ cup	½ cup	¾ cup
Meat or meat alternate <b>OR</b> Yogurt	½ oz  2 oz (or ¼ cup	½ oz  2 oz (or ¼ cup)	1 oz  4 oz (or ½ cup)
Bread or bread alternate or cereal	½ slice	½ slice	1 slice
<b>LUNCH/SUPPER</b>			
Fluid Milk	½ cup	¾ cup	1 cup
Meat or poultry or fish or meat alternates	1 oz	1½ oz	2 oz
Vegetable and/or fruit (2 or more)	¼ cup (total)	½ cup (total)	¾ cup (total)
Bread or bread alternate	½ slice	½ slice	1 slice

## APPENDIX D

### MENU PLANNING TIPS

The following menu planning tips will help ensure that meals served to the children you care for meet USDA CACFP requirements.

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#### Meat/Meat Alternates

- ✎ This category includes lean meat, poultry, fish, cheese, eggs, cooked dry beans and peas, nuts and seeds and their butters (except for acorn, chestnut and coconut) or an equivalent quantity of any combination of these foods.
- ✎ The meat/meat alternate must be served in the main dish or the main dish and one other menu item.
- ✎ In order to count towards meeting any part of the meat/meat alternate requirement, a menu item must provide a minimum of 1/4 ounce of cooked lean meat or equivalent.
- ✎ It is recommended that the same meat/meat alternate not be served more than 3 times per week to ensure variety.
- ✎ Commercial yogurt is creditable as a meat alternate for snack only.
- ✎ Cheese foods/spreads may be used to meet the meat/meat alternate requirement; however, twice as much is needed. That is, a 2 ounce serving of cheese spread/food is equivalent to only 1 ounce of meat/meat alternate. This ruling applies to cottage cheese and ricotta cheese as well.
- ✎ Cooked dry beans or peas may be used to meet the meat/meat alternate requirement of the fruit/vegetable requirement, but not both in the same meal.
- ✎ Nuts and seeds may fulfill: 1) No more than one half of the meat/meat alternate requirement for lunch/supper; and 2) All of the meat/meat alternate requirement for snack.
- ✎ Processed meats such as luncheon meat or hot dogs must be labeled "all meat" with no by-products, cereals or extenders added. Due to their high fat/salt content, these items should be served sparingly.
- ✎ Ground turkey, pork or chicken may be substituted in part of all for ground beef; particularly in those recipes containing seasoned meat such as tacos, lasagna or meat sauce for spaghetti.
- ✎ It is recommended that peanut butter sandwiches not be served as a main dish item when planning lunch/supper menus. The large amount required (3 tablespoons = 1 ½ ounces meat/meat alternate) is not a practical serving size for young children. However, peanut butter sandwiches may be included in the menu as supplement to main dish items such as casseroles or homemade soups. Peanut butter sandwiches work well as a snack idea.

---

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## **Fruit/Vegetable**

- ✍ A breakfast shall contain a serving of vegetable(s) or fruit(s) or full-strength (100%) vegetable or fruit juice, or an equivalent quantity of any combination of these foods.
- ✍ Lunch and supper shall contain two or more different vegetables or fruits, or a combination of both. Full-strength (100%) vegetable or fruit juice may be counted to meet not more than one-half of the requirement.
- ✍ In order to count towards meeting any part of the fruit/vegetable requirement, a menu item must provide a minimum of 1/8 cup fruit/vegetable; otherwise, it is considered a garnish.
- ✍ Cooked dry beans or peas may be counted as a vegetable or as a meat alternate, but not as both in the same meal.
- ✍ Potatoes are credited as a vegetable component when planning menus.
- ✍ Juice may not be credited as one of the components of a snack when milk is served as the only other component.
- ✍ Vegetables and/or fruits served as a combination item, e.g., fruit cocktail or mixed vegetables are credited as meeting one of the two required components for lunch/supper.
- ✍ Commercial spaghetti/pizza sauce may not be credited towards meeting one of the two required vegetable/fruit components for lunch/supper. However, if these

sauces are prepared from scratch, credit may be given for the tomato products used.

- ✍ It is recommended when planning menus that foods rich in vitamin A be included twice a week and foods rich in vitamin C be included several times a week. (Head Start requires a vitamin C source daily and vitamin A every other day.)
- ✍ Home canned products are not creditable for health and safety reasons. These items should not be served.

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## **Bread/Bread Alternates**

- ✍ These items must be whole-grain or enriched or made from whole-grain or enriched meal or flour; or if it is a cereal, the product must be whole-grain, enriched, or fortified.
- ✍ In order to be credited as a bread/bread alternate the primary ingredient by weight (specified on the product label or according to the recipe) must be whole-grain and or enriched flour/meal; or the product must be enriched in preparation or processing and labeled "enriched".
- ✍ These items must serve the customary function of bread in a meal; this means it must be served as an accompaniment to, or a recognizable integral part of the main dish.
- ✍ In order to count towards meeting any part of the bread/bread alternate requirement, a menu item must provide at least 1/4 of a serving.





## APPENDIX E

### Menu evaluation checklist

1. Have you included all components for the meal?
2. Are serving sizes sufficient to provide young children the required quantity of:
  - Meat and/or meat alternate?
  - Two or more vegetables and/or fruits?
  - Enriched or whole-grain bread or an equivalent?
  - Milk?
3. Have you included other foods to help meet the nutritional needs of young children and to satisfy their appetites?
4. Are the combinations of foods pleasing and acceptable to children?
5. Do meals include a good balance of:
  - Color—in the foods themselves or as a garnish?
  - Texture—soft, crisp, firm-textured?
  - Shape—different-sized pieces and shapes of foods?
  - Flavor—bland and tart or mild and strong flavored foods?
  - Temperature—hot and cold foods?
6. Have you included foods high in vitamin A, vitamin C, and iron?
7. Have you considered children's cultural and ethnic food practices?
8. Are foods varied from day to day, week to week?
9. Have you included different kinds or forms of foods (fresh, canned, dried)?
10. Have you included seasonal foods?

## **APPENDIX F**

### **Focus On: Slow Cooker Safety** From USDA's Meat and Poultry Hotline

#### **Is A Slow Cooker Safe?**

Yes, the slow cooker, a counter top appliance, cooks foods slowly at a low temperature generally between 170° and 280°F. The low heat helps less expensive, leaner cuts of meat become tender and shrink less.

The direct heat from the pot, lengthy cooking and steam created within the tightly-covered container combine to destroy bacteria and make the slow cooker a safe process for cooking foods.

#### **Safe Beginnings**

Begin with a clean cooker, clean utensils and a clean work area. Wash hands before and during food preparation.

Keep perishable foods refrigerated until preparation time. If you cut up meat and vegetables in advance, store them separately in the refrigerator. The slow cooker may take several hours to reach a safe, bacteria-killing temperature. Constant refrigeration assures that bacteria, which multiply rapidly at room temperature, won't get a "head start" during the first few hours of cooking.

#### **Thaw and Cut Up Ingredients**

Always defrost meat or poultry before putting it into a slow cooker. Choose to make foods with a high moisture content such as chili, soup, stew, or spaghetti sauce.

Cut food into chunks or small pieces to ensure thorough cooking. Do not use the slow cooker for large pieces like a roast or whole chicken because the food will cook so slowly it could remain in the bacterial "danger zone" too long.

#### **Use the Right Amount of Food**

Fill cooker no less than half full and no more than two-thirds full. Vegetables cook slower than meat and poultry in a slow cooker so if using them, put vegetables in first, at the bottom and around sides of the utensil. Then add meat and cover the food with liquid such as broth, water or barbecue sauce. Keep the lid in place, removing only to stir the food or check for doneness.

## **Settings**

Most cookers have two or more settings. Foods take different times to cook depending upon the setting used. Certainly, foods will cook faster on high than on low. However, for all-day cooking or for less-tender cuts, you may want to use the low setting.

If possible, turn the cooker on the highest setting for the first hour of cooking time and then to low or the setting called for in your recipe. However, it's safe to cook foods on low the entire time if you're leaving for work, for example, and preparation time is limited.

While food is cooking and once it's done, food will stay safe as long as the cooker is operating.

## **Power Out**

If you are not at home during the entire slow-cooking process and the power goes out, throw away the food even if it looks done.

If you are at home, finish cooking the ingredients immediately by some other means: on a gas stove, on the outdoor grill or at a house where the power is on.

When you are at home, and if the food was completely cooked before the power went out, the food should remain safe up to two hours in the cooker with the power off.

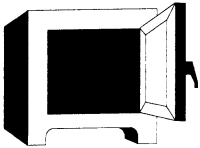
## **Handling Leftovers**

Store leftovers in shallow covered containers and refrigerate within two hours after cooking is finished. Reheating leftovers in a slow cooker is not recommended. However, cooked food can be brought to steaming on the stove top or in a microwave oven and then put into a preheated slow cooker to keep hot for serving.

**NOTE: Slow cookers must be monitored continually as to the product temperature and how long the product has been at a certain temperature; therefore, it is recommended that the use of slow cookers be limited in child care centers and family child care homes.**

## APPENDIX G

### HOW TO MICROWAVE SAFELY



*The popularity of microwave cooking continues to grow—almost every American household possesses at least one oven. Yet, concerns about the safety of cooking meat and poultry products in the microwave persist. Even the cookware and plastic wraps used in the ovens have come under question.*

*Plus, there are traits, unique to microwave cooking, that affect how completely food is cooked. "Cold spots" can occur because of the irregular way the microwaves enter the oven and are absorbed by the food.*

*Since we have traditionally relied on thorough cooking to kill bacteria that may be present in food, consumers should take simple, yet effective steps to ensure even cooking when using a microwave.*

#### **Defrosting**

- ✍ *When using the microwave to defrost foods, plan to finish the cooking immediately.* Some areas of larger food items may begin to cook during the defrost cycle, raising the temperature to a point where bacteria can flourish.
- ✍ *Remove food from store wrap prior to thawing.* Foam insulated trays and plastic wraps are not heat stable at high temperatures. They can melt or warp from the food's heat, possibly causing chemicals to migrate into the food.
- ✍ *Don't defrost or hold food at room temperature for over 2 hours.* It is easy to forget all about a food item thawing in the microwave oven. Set a timer to sound an alert when the thawing time is up.

#### **Cooking**

- ✍ *Debone large pieces of meat.* Bone can shield the meat around it from thorough cooking.
- ✍ *Arrange food items uniformly in a covered dish and add a little liquid.* Under the cover, steam helps kill bacteria and ensure uniform heating. Either plastic wrap or a glass cover works well. Many recipes suggest venting a small area, allowing some steam to escape. Plastic wrap **SHOULD NOT** touch the food.

- ✍ *Cook large pieces of meat at 50% power for longer periods of time.* This allows the heat to reach deeper portions without overcooking outer areas. Commercial oven cooking bags can also help even out cooking and provide a tender product.
- ✍ *Move the food inside the dish several times during cooking.* Stir soups or stews. If you don't have a turntable, turn the entire dish during cooking. This is especially important for foods like casseroles that can't be stirred.
- ✍ *Do not cook whole, stuffed poultry in the microwave.* The bones and density of the bird do not allow even cooking. Microwaves may not thoroughly cook the moist stuffing deep inside the bird either.
- ✍ *Never partially cook food.* If planning to combine microwave cooking with conventional roasting, broiling or grilling, transfer the microwaved foods to conventional heat immediately.
- ✍ *Use a temperature probe or meat thermometer to verify the food has reached a safe temperature.* Check the temperature in several places, avoiding fat and bone. It should reach 160°F for red meat; 180°F for poultry.
- ✍ *Make allowances for oven wattage variations.* Because ovens vary in power and operating efficiency, make sure food is done. Use a meat thermometer and visual signs to check doneness. Juices should run clear, and meat should not be pink.
- ✍ *Observe the standing time in the recipe.* It is necessary to complete the cooking process.

### **Warming Precooked Foods**

- ✍ *Cover precooked foods with microwave-safe plastic, waxed paper or a glass lid.* This will keep moisture in and provide even cooking.
- ✍ *Heat leftovers and precooked food to at least 165°F.* Food should be very hot to the touch and steaming before it is served.
- ✍ *Use caution when warming baby food.* Stir toddler foods thoroughly and taste-test them yourself for child-safe temperatures using a separate spoon. Formula should not be heated in a microwave because it can develop hot spots and the bottle can feel cool to the touch.

### **What Utensils, Wraps and Cookware Should Be Used in the Microwave?**

Glass and glass ceramic cookware are safe for microwave cooking. But what about other materials?

- ✍ *Use only those containers and products that have been approved for microwave use.* These items are designed to withstand the high temperatures possible when cooking foods that have a high fat or sugar content.

- ✎ *Avoid the use of cold storage containers.* Margarine tubs, whipped topping bowls and cottage cheese cartons, for example, have not been approved for microwaving. High heat could cause chemicals to transfer into the food.
  - ✎ *Waxed paper is safe.* Other paper goods such as towels, plates and napkins have not been tested for use in cooking. If using these items, for optimal safety, use only plain white paper goods.
  - ✎ *Never use brown grocery bags and newspapers.* These contain recycled materials and metals which could start a fire.
  - ✎ *Avoid letting plastic wrap touch foods during microwaving.* It's fine to cover utensils with plastic wrap, but unless the wrap is a heavy-duty type, it could melt in contact with hot foods.
  - ✎ *Oven cooking bags are safe for use in the microwave.* They are made from a very tough nylon material. Oven bags also promote even cooking, which helps meat reach safe temperatures throughout.
  - ✎ *Follow package directions when heating microwaveable foods with special browning or crisping devices in the package.* Never try to reuse these special browning devices. Don't eat from a package that becomes "charred" in cooking. Handle carefully, they become very hot to the touch.
  - ✎ *Do not re-use trays and containers provided with microwave convenience products.* They have been designed for one-time use with that specific food only.
- 

Source: Adapted from USDA Meat and Poultry Hotline. Susan Conley, CiCi Williamson, Marilyn Johnston, Food News for Consumers, Winter 1993.

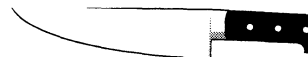
**NOTE: The use of a food thermometer is recommended to check food temperature.**

## **APPENDIX H**

### **FOCUS ON: CUTTING BOARD SAFETY**

From USDA's Meat and Poultry Hotline

Which is better, wooden or plastic cutting boards? Some 500 consumers have called the USDA's Meat and Poultry Hotline with this question since one study suggested that wooden cutting boards were better.



#### **Avoid Cross-Contamination**

The Meat and Poultry Hotline recommends that consumers use plastic or glass surfaces for cutting raw meat and poultry. However, wooden cutting boards used exclusively for raw meat and poultry are acceptable. Use a different board for cutting other foods such as produce and bread. This will prevent bacteria from a meat or poultry product from contaminating another food.

#### **Wash All Cutting Boards Thoroughly**

To keep all cutting boards clean, the Hotline recommends washing them with hot, soapy water after each use then rinse and air dry or pat dry with fresh paper towels. Nonporous acrylic, plastic or glass boards and solid wood boards can be washed in an automatic dishwasher (laminated boards may crack and split).

#### **Sanitize Cutting Boards Occasionally**

Both wooden and plastic cutting boards can be sanitized with a solution of two teaspoons liquid chlorine bleach per quart of water. Flood the surface with the bleach solution and allow it to stand for several minutes, then rinse and air dry or pat dry with fresh paper towels.

#### **Replace Battered Cutting Boards**

Even plastic boards wear out over time. Once cutting boards become excessively worn or develop hard-to-clean grooves they should be discarded.

#### **Studies Support Recommendations**

One much-publicized study reported that wooden boards had antimicrobial qualities while plastic cutting boards trapped bacteria.



However, recent studies by the Food and Drug Administration's Center for Food Safety and Applied Nutrition found that microorganisms became trapped in wood surfaces and were difficult to dislodge by rinsing. Once trapped, bacteria survive in a dormant stage for long periods of time. The next time the cutting board is used, these bacteria could contaminate other foods, potentially causing foodborne illness. On the other hand, the study found that micro-organisms were easily washed off plastic surfaces.

The U.S. Department of Agriculture's Eastern Regional Research Center also compared wooden and plastic cutting boards for differences in the way bacteria attach to them. Beef chuck was placed on the cutting boards for up to 90 minutes at room temperature. Bacterial levels were higher on wooden boards regardless of contact time.

### **Nonporous Surfaces Are Easier to Clean**

The USDA researchers also studied how easily bacteria can be removed from cutting boards. After they were inoculated with bacteria, the cutting boards were cleaned in different ways. The researchers found that washing by all the methods they used removed virtually all the bacteria on both types of boards, but results were more reliable with the plastic.

## APPENDIX I

### Weekly menu planning worksheet

Week of \_\_\_\_\_

Pattern	Mon	Tues	Wed	Thurs	Fri
<b>BREAKFAST</b>					
Milk, fluid					
Juice or fruit or vegetable					
Bread or bread alternate (including cereal)					
<b>A.M. OR P.M. SNACK</b>					
(Select two of these four components)					
Milk, fluid					
Juice or fruit or vegetable					
Bread or bread alternate (including cereal)					
Meat or meat alternate					
<b>LUNCH OR SUPPER</b>					
Milk, fluid					
Meat or meat alternate					
Vegetables and/or fruits (two or more)					
Bread or bread alternate					

## APPENDIX J

### Daily menu planning worksheet (sample)

(1)	(2)	(3)	(4)	(5)	(6)
Date _____		Size of	Number	Food	Amt.
Meal Pattern	Menu	Serving	To Be Served	Items Used	Prepared

#### BREAKFAST

Milk, fluid  
 Juice or fruit or  
     vegetable  
 Bread or bread  
     alternate  
     (including cereal)

#### A.M. OR P.M. SNACK

(Select two of these  
     four components)  
 Milk, fluid  
 Juice or fruit or  
     vegetable  
 Bread or bread  
     alternate  
     (including cereal)  
 Meat or meat alternate

#### LUNCH OR SUPPER

Milk, fluid  
 Meat or meat alternate  
 Vegetables and/or  
     fruits (two or more)  
 Bread or bread  
     alternate

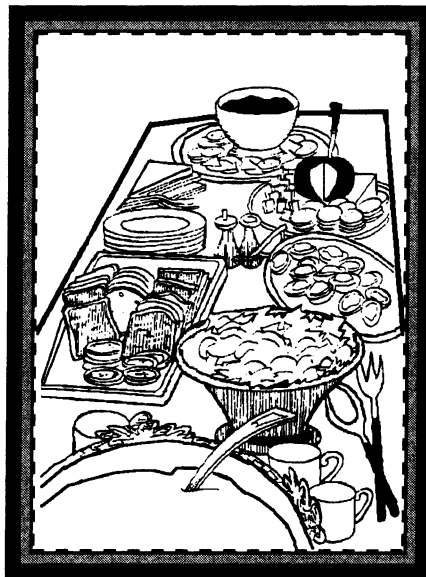
## APPENDIX K

### Daily menu planning worksheet (sample)

(1) Date _____ Meal Pattern	(2) Menu	(3) Size of Serving	(4) Number To Be Served	(5) Food Items Used	(6) Amt. Used
<b>BREAKFAST</b>					
Milk, fluid	Milk	$\frac{3}{4}$ cup	25	Milk	1.2 gal.
Juice or fruit or vegetable	Applesauce	$\frac{1}{2}$ cup		Apple- sauce	4 cans (#2 $\frac{1}{2}$ size)
Bread or bread alternate (including cereal)	Cinnamon toast	$\frac{1}{2}$ slice		Bread	.8 lb.
<b>A.M. OR P.M. SNACK</b> <i>(Select two of these four components)</i>					
Milk, fluid					
Juice or fruit or vegetable	Orange juice	$\frac{1}{2}$ cup	25	Frozen juice	2.2 cans (12 fl. oz. size)
Bread or bread alternate (including cereal)	Muffin	1 small		Muffin	25 muffins
Meat or meat alternate					
<b>LUNCH OR SUPPER</b>					
Milk, fluid	Milk	$\frac{3}{4}$ cup	25	Milk	1.2 gal.
Meat or meat alternate	Meatloaf	1 slice (1 $\frac{1}{2}$ oz meat)		Ground beef	3.4 lb.
Vegetables and/or fruits (two or more)	Green beans	$\frac{1}{4}$ cup		Green beans	2 cans (#2 $\frac{1}{2}$ size)
	Mashed potatoes	$\frac{1}{4}$ cup		Potato granules	1 $\frac{1}{3}$ cups
Bread or bread alternate	Bread	$\frac{1}{2}$ slice		Bread	.8 lb.
Other foods	Ice cream	1 scoop		Ice cream	$\frac{1}{2}$ gal.

# Section 3

## **Mealtime Behavior: The Feeding Relationship**





# Mealtime Behavior: The Feeding Relationship



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*In this topic you will learn:*

- ➡ *The signs of developmental readiness for introducing semi-solid foods to infants.*
  - ➡ *Changes in the child's growth and development which affect food intake.*
  - ➡ *Characteristics of a positive feeding relationship with infants through five year olds.*
  - ➡ *Normal behaviors related to eating.*
  - ➡ *The division of responsibility for feeding infants through five year olds, including appropriate mealtime behaviors.*
- 
- 

- ☐ The following pages are written to help you as a child caregiver learn about the importance of mealtime behavior.
- ☐ Appropriate feeding relationships come from knowledge and good planning.

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## Division of Responsibility for Feeding

*"Maintaining a positive feeding relationship demands a division of responsibility. The parent is responsible for what the child is offered to eat, the child is responsible for how much, and even whether, she eats."* Such are the words of Ellyn Satter, recognized national authority on childhood nutrition and feeding. Although the words are written for parents, anyone who cares for children should consider the implications for feeding children in a nurturing and caring environment.



Feeding times may be full of hassles, turmoil, and conflicts. Or, with care and observations, you can turn feeding around and make it fun, enjoyable and a time for learning. The feeding relationship begins in the infant period. Caregivers will need to form a partnership with the parents and the infant to shape a successful feeding relationship.

*At all phases of a child's life it will be important to establish some basic approaches to the feeding relationship. They are:*

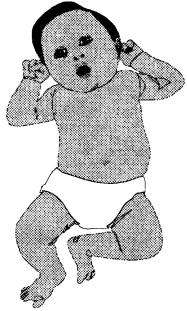
- ☞ Avoid forcing foods.
- ☞ Make a habit of observing readiness and fullness cues.
- ☞ Accept your responsibility for offering appropriate foods for children based on their developmental readiness and nutritional needs.
- ☞ Accept your responsibility to provide food in a setting that is emotionally and socially accepting.
- ☞ Accept that children should have responsibility for determining how much to eat.

Adults who are too controlling in a feeding relationship will find that strict control will backfire. Children will learn to become manipulative and fussy about their foods. Rather than expanding a child's food world it can easily become narrow and restrictive. It's a big job to take an infant from his world of breast milk or formula through the transitional phase of introducing a wide array of foods and into the adult food world. As a child gets older there are several influences such as peers or other adults who care for the child that will affect eating behavior.

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## Infants - The First 3 Months

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Feeding will go best when feeding matches the infant's timing. The new infant will be able to tell you how much she wants to eat and when she is hungry. Each infant will establish a different speed for eating. The

caregiver will need to tune into each infant by observing the cues that babies use to tell you they are hungry. The cues range from squirming to crying.

Caregivers of new infants should hold the infant securely and at a comfortable angle for taking a nipple. Talk or smile during the feeding but avoid too much stimulation. After all, it is eating time and that is serious business! Hungry newborns naturally "root" for the nipple so it is not necessary to force a nipple into the mouth. Simply touch the cheek gently with the nipple and the infant will turn toward the touch and seek out the nipple.

As the infant begins to get full, he will slow his sucking action. Observe carefully and occasionally check to see if he is still hungry by removing the nipple from the mouth during a pause in the sucking action. After a brief rest, touch the nipple to the cheek again and see if the infant is ready to resume eating. Keep the feeding as smooth as possible and avoid unnecessary jostling and burping.

Remember that infants will tell you when they are full by losing interest in sucking. At this point don't force more breast milk or formula even if they haven't eaten what you think they should. The quantity and frequency of feeding for new infants depends on each infant and will vary from infant to infant. If you are caring for more than one infant, be prepared for them to have quite different schedules and plan for ways to accommodate them. A list of behaviors for a positive feeding relationship in infancy is found in Table 1.

---

## **Do's for child caregivers**

- ▶ Use the milk (breast or formula) that is provided by the parent. If you think you notice some problems with the type of milk, bring it to the attention of the parent.
- ▶ Keep the milk refrigerated.
- ▶ Let the infants tell you when they are hungry and when they are full.
- ▶ Hold the baby during feedings.
- ▶ Hold the baby's bottle. Regulations prohibit bottles from being propped.
- ▶ Use the range to warm a bottle of formula. Avoid heating a bottle of formula with the microwave oven. Hot spots created in microwaved formula may burn the baby's mouth and throat.
- ▶ Throw away any milk left in the bottle at the end of the feeding.



**Table 1. Behaviors to support a positive feeding relationship between infants and caregivers**

- 
- \* Follow the baby's signals about what time to feed.
  - \* Feed promptly when the baby is hungry, before the baby becomes irritable from heavy crying.
  - \* Hold the baby securely but not restrictively.
  - \* Bottles should be held still at an appropriate angle; don't jiggle the bottle or the baby.
  - \* Be sure the milk flows through the nipple at an appropriate speed.
  - \* Stimulate the rooting reflex by touching the baby's cheek.
  - \* Touch the nipple to the baby's lip and let the baby open his or her mouth before feeding.
  - \* Let the baby decide how much to have and at what rate.
  - \* Let the baby pause, rest, socialize, and go back to eating.
  - \* Talk and smile, but don't overwhelm the baby with attention.
  - \* Burp only if the baby seems to need it; don't disrupt feeding with unnecessary burping and wiping.
  - \* Stop the feeding when the baby refuses the nipple or indicates satiety and lack of interest in eating by turning away, refusing to open the mouth, or arching the back.
- 

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## **Tempted to start other foods?**

Before foods other than breast milk or formula are introduced into an infant's diet, check for the baby's readiness and your health care professional. Infants from birth to three months are typically not developmentally ready for semi-solid foods. The tongue follows a sucking action and will not have the swallowing action needed for solid foods until four to six months of age. When you try to force newborn infants to take foods from a spoon, food will be pushed out of the mouth.

Babies should also be able to control their heads and sit up before starting food from a

spoon. Babies who have control of their upper bodies will be able to move forward when they want food and move back when they are full. That is their way of signaling when they are hungry or full. Forcing foods before infants have developed some control is inappropriate. One of the most common misbeliefs about starting foods is that it will help the baby sleep through the night. Research doesn't confirm this notion and feeding infant cereals mixed with milk through a bottle or other devices is most inappropriate. Breast milk or formula will meet their nutritional needs quite well in these early months.

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## Activity

If you haven't taken the opportunity to thoroughly discuss infant feeding relationships with the parents of the infant under your care, do it soon. Keep notes on your discussion on Activity Form I provided with this unit. Discuss the following points: infant's signs for hunger and fullness, infant's typical feeding day (is it fairly regular or sporadic?), preferred holding position during feeding, developmental signs of readiness for starting semi-solid foods. Ask the parents to give you a good picture of how the feeding relationship works best at home.

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## Infants - 4 Months to 12 Months (Transition Period)

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Sometime during infants' fourth to sixth month, they will gain more control of their upper body and head, and use their arms and hands to grasp objects. They can begin to move foods from the front to the back of their mouths in a swallowing action. At this stage of development, infants are starting to be ready for semi-solid foods. Some babies will reach this stage sooner than others but most babies will be there around six months of age. It will be important to watch carefully and observe the baby's actions.

Caregivers should work closely with parents to watch for signs of the next step in the feeding relationship. Remember the division of responsibility: Parents and caregivers are in charge of providing appropriate foods for the baby to eat and the baby will let you know how much he or she wants to eat and whether he or she will eat. Continue to watch for signs of fullness such

as bringing a hand to the mouth to prevent you from feeding more or beginning to turn away. Observe when loss of interest or lack of concentration on feeding occurs.

Babies from four to six months may establish more of a routine of feeding and there may be longer stretches between feedings. When infants are ready for other foods, they may not drink as much breast milk or formula. If you have taken time to observe the signs that an infant is full, you won't risk overfeeding or forcing foods.

When the infant is developmentally ready for semi-solid foods, the first food to begin is an iron-fortified infant rice cereal mixed with breast milk or formula. Wait to introduce wheat or multi-grain cereals until around nine months to avoid possible allergic reactions in some infants. Begin the new food slowly -- one to two spoonfuls

may be all the baby wants to try at first. When the baby turns his or her head or moves back from a sitting position the baby has had enough. Don't force more food. Remember, infants won't always know what to do when you first introduce the food. Patience and repetition of the process are necessary. It is helpful if the parents will supply an infant spoon that is similar to what is used at home. Label the spoon for that infant and use it during your feeding times with him.

After cereals have been successfully introduced, other vegetables, fruits and strained meats can be added. Add only one new food at a time and allow a week between new food introductions. This will allow time for you to observe any adverse reactions to food such as vomiting, diarrhea, or a rash. If the baby doesn't seem to like a new food but there are no adverse physical reactions, wait a few weeks and try introducing the new food again. It may take several exposures to new foods before the infant is willing to accept them.

Keep your feeding relationship relaxed and fun. Smile and talk to the baby while you are feeding. Maintain eye contact with the baby so that you can observe whether she wants more food or is getting full. As much as possible make the eating environment relaxing. Reduce extra noises by keeping radios and televisions turned off. Table 2 provides more tips on positive feeding relationships for older babies.

During the second six months of the first year, babies really take off with their foods. It is a messy time and babies want to participate in it. Child caregivers should be patient. Expect spills and messes so that you can refrain from any scolding. It is an important learning time. You can ease your frustrations by feeding babies in an area that can be easily cleaned and wiped up. Plastic mats around high chairs also help. By watching closely and staying with the baby during feeding you can intercept foods, utensils, bottles or cups as they head for the floor!

Babies from six to twelve months begin to settle into mealtime routines that are more similar to their family's routine. Continue to watch for signs of hunger and provide for snacks between regular mealtimes. Soft fruits, cooked vegetables, or graham crackers are ideas to consider. Encourage babies to feed themselves by including finger foods. During this phase of infant feeding the signs for fullness may be playing with food, shaking the head, pushing food away. When the baby shows you these signs, remove the food. You don't need to let the child play with the food. If the baby is hungry he will eat and not play.

Visit with parents about the appropriate time to begin cup feeding. For many infants this is around seven to eight months of age. Caregivers will need to hold the cup in the beginning. Use only small amounts of water at first. When that is mastered, try small amounts of juice or formula. If you drink something along with the baby, you will be able to show how a cup is used.

**Table 2. Behaviors to support a positive feeding relationship between older infants or toddlers and caregivers**

- 
- |   |   |
|---|---|
| * | Feed when the child wants to eat, but gradually evolve a time structure that is appropriate for everyone. |
| * | Have the child sit up and face forward.   |
| * | Sit directly in front of the child.   |
| * | Hold the spoon so the child can see it.   |
| * | Talk in a quiet and encouraging manner.   |
| * | Wait for the child to open up and pay attention before feeding.   |
| * | Let the child touch the food and eat with fingers.  |
| * | Let the child self-feed when ready.   |
| * | When the child is self-feeding, remain present but don't take over.                                       |
| * | Let the child decide how fast to eat and how much to eat.   |
| * | Respect the child's food preferences.   |
| * | Respect the child's caution about new foods.  |
| * | Remember, all children learn to eat eventually.   |
- 

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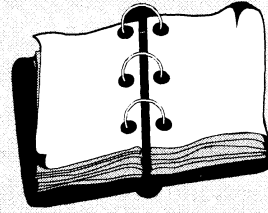
### **Do's for child caregivers**

- ★ When foods are being introduced, hold the baby in your lap to help her feel more secure. Support in an upright position.
- ★ Talk in a quiet and reassuring voice during feeding.
- ★ Be patient. Tolerate messiness. Celebrate successes at mealtimes.
- ★ Establish pleasant mealtime atmospheres
- ★ Make appropriate foods available - variety of finger foods and mashed table foods
- ★ Work with the parents to decide when cup feeding can begin
- ★ Continue feeding appropriate milk -- breast milk or formula
- ★ Allow the infant to be part of regular mealtimes so he can see others eating at a table setting.
- ★ Continue to offer new foods for the baby to try.
- ★ Remember that adding extra sugar, salt or fats to baby foods is unnecessary.
- ★ Continue formula or breast milk feeding until 12 months. Switching to cow's milk is not appropriate until after 12 months of age.
- ★ Avoid small hard foods like nuts, raisins and popcorn or round, disk-like foods like hot dogs and carrots that can get stuck in a baby's throat.

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## Activity

For one month, keep a journal for each 6 - 12 month infant for whom you care. Record when new foods are started and the baby's reaction to the new food. Write your observation about how the baby lets you know she is hungry and full. At the end of each week within the month, share your observations with the parents and compare notes. Activity Form II is provided at the end of this lesson to get you started.



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## 12 Months to 24 Months

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The baby has just finished the first 12 months of life. During that time there has been considerable growth and development. As the baby enters the second year of life, you may notice some changes in the amount of food the baby eats. Although the baby is still growing and gaining weight, the rate is slower than in the first year. Food intake seems to fall off. At the same time, babies entering their toddler years, begin to take even more interest in their surroundings. They are busy exploring and trying out many new things around them. They are gaining some control and are asserting their independence.

For mealtimes, caregivers should continue to remember their responsibility to establish a

pleasant meal environment and to choose appropriate foods to meet the toddler's nutritional and growth needs. Since toddlers are working hard to learn about their environment, including the food environment, expose the children to a variety of foods. Also realize that toddlers are now more able to express their displeasures at foods than during their year of infancy.

Avoid unpleasant mealtimes by observing these tips from Dr. Madeleine Sigman-Grant, Extension Nutrition Specialist at The Pennsylvania State University:

- Let the meal end when the toddler stops eating. Arguing with toddlers provides

attention for their refusal to eat. Be sure that children know they should not expect any more food until the next feeding event (typically a planned snack within three hours).

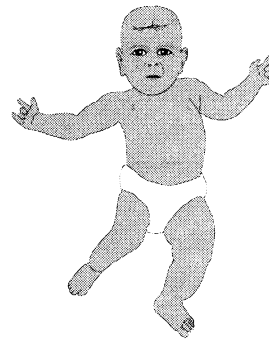
- If children don't want to eat, don't force them. Do allow them a chance to change their minds within a set period of time. Do this by telling them they do not have to eat, but have the food available while they sit at the table with you. The social contact might encourage them to eat.

From 12 to 24 months, toddlers should expect regular mealtimes with planned snacks in between. Avoid the tendency to serve adult serving sizes to toddlers. Allow children to clue you in when they are full at a meal by eating with them, and observing their behaviors. Encourage them to try new foods but don't pressure them. Remember that food acceptance comes with repeated exposure to food -- not badgering children to eat! When you expose children to new foods at meals or snacks, be sure to include some familiar foods that they like at the same time.

Parents and child caregivers often wonder how to handle dessert foods during this period. It's important not to use such foods as rewards or to withdraw desserts when children haven't eaten as you expected them to eat. If dessert is to be part of a meal, the best approach is to serve it at the same time

that other foods are served in the meal. You have done your job by establishing regular meals and snacks and serving appropriate foods. Of the foods served the child will decide what foods to eat and how much - including desserts. Ideas for dessert include fruits, frozen dairy foods, or simple cookies.

As toddlers approach their second birthday, they will be eager to help with simple meal time chores. Include them in meal preparation and clean up by allowing them to set the table, or wipe the table clean. They can stir and mix simple dishes. Teach them to wash their hands whenever they work with food. Involving the children in some of the meal preparations will spark their interest in the meal itself and begins to teach responsibility. Above all, take time to visit with the children as you prepare for a meal and during the meal. The children are observing and learning from your example.



### Do's for child caregivers

- ☞ Serve a familiar food with every meal.
- ☞ Consider the color of foods. Although children enjoy pretty colors, avoid serving foods with "strange" colors.
- ☞ Eat and visit with the children during meals and snacks; make a friendly meal environment.
- ☞ Use a variety of textures in a meal -- soft, juicy, crunchy.
- ☞ Involve older toddlers in the meal preparation.
- ☞ Avoid serving foods that may cause choking -- peanuts, popcorn, coin-shaped carrots or hot dogs, whole grapes, foods with pits (olives), or hard candy.
- ☞ Serve whole milk to toddlers - Children may be switched to lower fat milk after their second birthday. (Be sure to discuss this issue with the child's parents and follow their directions for choice of milk after age two.)
- ☞ Encourage self-feeding and allow children to serve themselves whenever possible.
- ☞ Use plastic dishes since accidents and spills are likely to occur. This step will keep breakage to a minimum and remove some of the mealtime tension.
- ☞ Maintain standards of behaviors at meals. It's not necessary to allow the meal to be a "free for all." Children can be expected to sit while eating and keep their hands to themselves and their own food. Encourage manners by asking children to use "please" and "thank you" when they gain their verbal skills.

### Activity

Select a simple recipe for a snack and allow the toddlers to help with putting in the ingredients, mixing, setting the table for snack and serving. Find a book about foods to read to the children before you prepare the snack or after the snack. Keep notes on how each child responded to the activity and share the highlights with the parents.

### Young Children - Ages 3 to 5 Years

During the ages of three to five years the growth rate of the child decreases as compared with that of an infant or toddler. A typical, healthy youngster will gain from four to six pounds per year and

approximately three inches annually in height. African-American children tend to be taller than white children, and Asian American children shorter than both of these groups. Children of this age also become

leaner as they develop, and brain development continues but at a slower rate. Approximately 75 percent of brain growth is completed by age two.

Nutrient needs of each child will vary some and may be dependent on several factors. For example, the amount of energy (kilocalories) that a child requires depends on individual rates of metabolism, rate of growth, and activity level. Although most young children are not severely malnourished, some nutrients tend to be more problematic in their diets. The main source of calcium in the diet is milk and other dairy products. Children of this age need three or more servings each day. Dietary zinc and iron can also be inadequate for young children. Meats are good sources of both. If children have difficulty chewing bite size pieces, ground meats are an alternative. A vitamin C rich food, such as a citrus fruit, provided with a non-meat source of iron like legumes, will enhance the absorption of iron.

Although most common under the age of two, choking on foods can occur in children of this age. Foods commonly choked on by young children are:

- Hot dogs
- Hard candy
- Peanuts
- Grapes
- Popcorn
- Dried fruits (raisins)
- Nuts and seeds
- Potato and corn chips
- Small pieces of raw carrot
- Peanut butter
- Tough meat
- Marshmallows and bubble gum

An adult should always be present with children as they eat. Encouraging the child to sit while eating rather than running or reclining are good practices. Remember, a child may make no sound when choking.

Some times child caregivers describe children as being finicky or poor eaters because they don't eat all food served to them.

As mentioned earlier with infants and toddlers, the three to five year old should be the regulator of whether they want to eat and the amount to eat. The role of the caregiver is to be supportive in providing nutritious foods served in an appropriate environment.

### **Normal food behaviors**



This time in a child's life is one of the last opportunities for parents and child caregivers to influence food choices. There are many factors which influence decisions. These

factors can be cultural, environmental, societal, and interactional. Some of these will be discussed in the next section on appropriate mealtime behaviors. In addition to these areas, there are food behaviors which are typical of all children. Understanding these and dealing with them appropriately will enhance the quality of the child's current diet and food behaviors in future years.



## Normal food habits

1. Appetites  
These can be erratic and unpredictable. Since the evening meal tends to be the least well received by young children, make sure that meals and snacks provided before this time are nutrient dense. Sometimes appetites are described as "fair" or "poor" because the caregiver has expectations which exceed the child's capability. A portion size needs to be appropriate and meet CACFP requirements if you are participating in the program. The children can ask for second helpings if they desire more. If serving sizes are too large, a young child may feel overwhelmed. A child should be allowed a second helping of any food served even if other foods have not been eaten.
2. Food Jags  
These are times when a child desires only a certain food(s), or food prepared in a particular way, i.e. a sandwich cut in quarters or half. These are very common, usually lasting for a short period of time (a week or so). The caregiver needs to be flexible in providing the desired food while continuing to serve a wide variety of nourishing, attractive food.
3. Frequency of Eating  
Nearly two-thirds of all children at this age eat more than three times a day and average five to seven times. Small stomachs can not hold enough food to last until typical adult meal times.
4. Preferences  
Remember, nutrient dense foods should be provided at all meals and snacks. Sweets such as candy and pop are enjoyed by most children, but should be eaten only occasionally and in limited quantities. These should never replace nutritious foods.  
  
Vegetables tend to be a food item rejected frequently by youngsters. Raw or slightly undercooked choices that are crunchy are preferred. Vegetables should be mild in flavor, bright in color, and easy to eat for better acceptance.  
  
Children recognize appropriate textures such as mashed potatoes or oatmeal with no lumps.  
  
Introduce new foods frequently, but serve them with familiar foods. Suggest trying the new food at the beginning of the meal when the child is most hungry. Do not force or command the child to eat the food. If it is rejected, do not focus on it, and serve it again at a later time.  
  
Children like cooked foods served warm, not hot. Very cold foods, such as ice cream, may be better received if they have been warmed slightly.  
  
Children should be allowed to develop food "likes" and "dislikes" like adults. Food preferences will change at different stages. Child caregivers should encourage children to try new foods, but never force them to eat. Forcing a child may result in total future rejection or over consumption of foods. Adults who were forced to "clean their plates" as children frequently feel very guilty about not eating all food taken even if they are full.

## Appropriate mealtime behaviors

Our hurried lifestyles make mealtime with others difficult at times. However, mealtimes are opportunities for parents and child caregivers to influence food choices. As an adult, this is an excellent time for interaction, culturalization, and socialization with children. It has also been found that children who have companionship at meals eat better quality diets than children who eat alone. In addition to companionship, a positive environment and appropriate food related behaviors used by the adult when children are present will enhance dietary quality.

- |                |   |
|----------------|---|
| 1. Environment | Food should be served in a relaxed environment that is free of stress and unreasonable demands. Tables, chairs, and utensils used for eating need to be comfortable and appropriate for small bodies.   |
| 2. Involvement | Children should be allowed to assist in the preparation and cleaning up of a meal. Enough time should be allowed for a meal so the children do not feel rushed. A quiet time before and after meals may result in better food acceptance.   |
| 3. Interaction | <p>Caregivers need to sit down with and eat the same foods as the children at a meal. This provides a role model for the eating experience. Demonstrate the correct way to use the utensils and encourage pleasant conversation. If a new food is being served, a discussion about its origin, flavor, and texture might be a good topic.</p> <p>Encourage the children to serve themselves from small, manageable containers. Spills are common for children of this age, so expect them to happen.</p> <p>Do not focus on a child who refuses to eat. Allow children to refuse a food, but do not act as a "short order cook" and prepare a substitute food. Allow children to help in planning meals by requesting favorite foods.</p> |

## Age-appropriate activities for toddlers and young children.

### Two to Three Year Olds

- Wash vegetables
- Snap beans
- Tear lettuce
- Peel bananas

### Three to Four Year Olds

- Break eggs into a bowl
- Knead and shape dough
- Pour cereal and milk
- Toss salads
- Make sandwiches

### Five Year Olds

- Make cakes and cookies by hand
- Hand stir batters
- Set the table
- Clear and clean the table

## Activity

Have the children help set the table for a typical meal following a diagram placed in the center of the table. Switch the next day and set the table for a "fancy" or "elegant" meal using tablecloths, centerpieces and name cards.

## Activity Form I

### INFANT FEEDING RELATIONSHIP

Baby's Name \_\_\_\_\_

Parent(s) \_\_\_\_\_

Signs displayed by infant to show . . .

Hunger?

Fullness?

Typical feeding day:

Preferred holding position during feeding:

Signs of readiness to begin semi-solid foods:

- \_\_\_\_\_ Using arms and hands
- \_\_\_\_\_ Controlling head and neck
- \_\_\_\_\_ Proper tongue and swallowing movements
- \_\_\_\_\_ Sitting up for feedings

**INTRODUCING NEW FOODS**

Baby's Name \_\_\_\_\_

Parent(s) \_\_\_\_\_

New Food Introduced	Baby's Reaction to New Food

Baby demonstrates hunger or fullness by: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Information shared with parent(s) on: (enter each date information is shared)

\_\_\_\_\_

\_\_\_\_\_

## **Resource List**

Edelstein, S. *The Healthy Young Child*. Minneapolis-St.Paul, MN: West Publishing Co. 1995.

Edelstein, S. *Nutrition and Meal Planning in Child-Care Programs: A Practical Guide*. Chicago, IL: The American Dietetic Association. 1992.

Pipes, P. and Trahms, C. *Nutrition in Infancy and Childhood*. St. Louis, MO: Mosby Publishing. 1993.

Satter, E. *How to Get Your Kid to Eat . . . But Not Too Much*. Palo Alto, CA: Bull Publishing. 1987.

## MEALTIME BEHAVIOR: THE FEEDING RELATIONSHIP QUIZ



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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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1. The best guide for the amount of formula to feed to a baby is:
  - A. 36 ounces a day
  - B. the baby's appetite
  - C. 2 ½ ounces per pound of body weight
  - D. 6 to 8 bottles per day
2. If a child is reluctant to try a new food, it is best to:
  - A. encourage the child (not using force) to try the new food
  - B. withhold dessert until what is on the plate is eaten
  - C. make the child sit until he or she eats the food
  - D. encourage others at the table to coax him/her to eat
3. Which is not recommended to help the child eat vegetables:
  - A. show by example
  - B. promise a dessert once the vegetable is eaten
  - C. offer the new vegetable with familiar foods
  - D. serve the vegetable slightly undercooked and crunchy
4. Which is an appropriate feeding philosophy:
  - A. parents/child caregivers are responsible for how much and whether a child should eat
  - B. children are responsible for how much and whether to eat
  - C. parents/child caregivers may force a child to eat
  - D. parents/child caregivers are responsible for nutritious meals but need not be present at the meal
5. The first food usually introduced into an infant's diet is:
  - A. strained vegetables
  - B. egg
  - C. fruit juices
  - D. infant cereals

6. A reduced intake of food may develop during the preschool years partially because:
  - A. a child can not sit still very long
  - B. a decrease in growth rate
  - C. a change in taste buds
  - D. there is an increase in the need for finger foods
7. The best age to introduce solids into an infant's diet is:
  - A. less than one month
  - B. 1-3 months
  - C. 4-6 months
  - D. 7 months or older
8. Children prefer foods which are either too hot or too cold in temperature.
  - A. true
  - B. false
9. Most children do not need to snack between meals.
  - A. true
  - B. false
10. It is very normal for a child to occasionally want the same foods day after day.
  - A. true
  - B. false

# Section 4

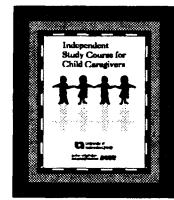
## Food Safety







# Food Safety



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*In this lesson you will:*

- ➡ *Be introduced to basic food microbiology and foodborne illnesses*
  - ➡ *Learn ways to properly handle foods to prevent foodborne illness*
  - ➡ *Conduct a food safety self-inspection*
  - ➡ *Learn how to properly store foods to maintain quality and safety*
- 

The sections in this chapter are:

- ☐ Objectives
- ☐ Introduction
- ☐ Foodborne Microorganisms
- ☐ Foodborne Illness
- ☐ Food Handling Practices
- ☐ Handwashing Techniques
- ☐ Child Care Food Safety Self-Inspection
- ☐ Food Safety Thermometer
- ☐ Food Storage
- ☐ Additional Activities
- ☐ References
- ☐ Evaluation Quiz

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# Introduction

Young children are particularly susceptible to diseases associated with foods. Infants and children are vulnerable due to the fact that they have underdeveloped immune systems and they are not in control of their food preparation. With increases in the number of mothers of small children working outside the home, commercial child care facilities and private child care homes are also increasing. It is estimated that 10.5 million children under age 6 have mothers that work outside the home (Dirige et al, 1991). Most of these children are under the supervision of a child caregiver. While at a child care facility, most of these children eat at least one meal.

The food handlers in child care centers and homes are responsible for providing safe food to children. Child caregivers are exposed to many situations which represent food related risks. One incident of improper food handling by a child caregiver has the potential of affecting many children who are at risk for foodborne illnesses.

Foodborne outbreaks have been estimated to be as high as 5 million per year with estimated costs between \$1 to 10 billion in terms of medical costs, loss of productivity, and product loss through recall by the manufacturer (Zottola and Smith, 1991). Limited data on the actual number of children involved in foodborne outbreaks is available. The largest reported outbreak of *Campylobacter* was associated with the consumption of raw milk, and resulted in

illness among 2500 school children (Stern and Kazini, 1989). During 1991, 202 cases of hepatitis were reported in Nebraska; many involved child care facilities (Nebraska Department of Health, 1991). One foodborne outbreak incurred by children in a child care setting could result in additional costs, such as increased child care costs, absence from work by the healthy working parent(s) and loss of income to the child caregiver (temporarily and possibly, long term).

Approximately 80% of reported foodborne outbreaks occur from foods consumed at retail food and restaurant operations. The remaining 20% of the reported outbreaks occur from food prepared and consumed at home. It is estimated that many cases are unreported or are misdiagnosed as the flu (Bryan, 1988). Numerous factors which contribute to foodborne outbreaks from food prepared in food service establishments have been identified (Bryan, 1990). These factors are:

1. Improper Cooling
  - a. Leaving cooked foods at room temperature
  - b. Storing foods in large containers in refrigerators
2. Lapse of 12 or more hours between preparation and eating
3. Colonized or infected persons handling food

4. Inadequate reheating
5. Improper hot holding
6. Contaminated raw food or ingredients
7. Foods from unsafe sources
8. Improper cleaning of equipment and utensils
9. Cross contamination from raw to cooked foods
10. Inadequate cooking

Child care facilities exist in commercial facilities and in private homes. Factors which have been reported as causes of

foodborne outbreaks also are critical for food handlers in child care facilities to provide safe meals and to prevent foodborne illnesses. As the number of child care facilities increase, the potential for foodborne illness outbreaks also increases.

Commercial child care facilities are subject to inspection by local or state health agencies. In contrast, many child caregivers which operate in private homes have limited screening or inspection by a regulatory agency. In Nebraska, a staff person responsible for menu planning in a day care center shall obtain at least four clock hours of training in the area of nutrition and food service during the first year of employment.



# Foodborne Microorganisms

## Microorganisms in Food

Bacteria, yeasts, and molds are microorganisms which are associated with foods. The individual microorganism cannot be seen without the aid of a microscope. The size of these microorganisms are measured in microns (a micron is 1/1000 of a millimeter or 1/25,400 of an inch). More than a thousand bacteria in a cluster are barely visible to the eye.

Microorganisms can be found virtually everywhere; bacteria and molds are found in the soil and water. Yeasts are found mainly in the soil. Plant and animal food products support the growth of microorganisms. Bacteria have been detected on plants; molds are usually found on fruits and vegetables; and yeasts are generally found on fruits. Many bacteria are part of the normal microflora of the intestinal tracts of man and animals.

Microorganisms may be transferred from soil and water to plants and animals. Raw foodstuffs contain microorganisms which may be transferred to processed foods with careless handling. Food handlers with poor hygiene practices may transfer microorganisms to food. If suitable conditions exist, some of these microorganisms may grow to create a public health problem. Specific bacteria species are the main causes of foodborne illnesses in humans. These bacteria will be discussed in detail later. A general discussion on microorganisms follows.

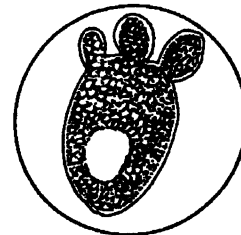
## Bacteria

Bacteria are single cell organisms which can be identified on the basis of their cell shape. There are round bacteria called cocci, rod shaped cells called bacilli, curved bacteria (the vibrios), and corkscrew-shaped spirilla. Single cells grow and multiply into chains, clumps or organized cluster.



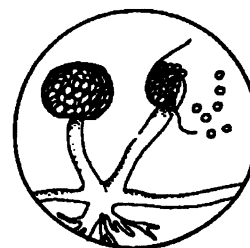
## Yeasts

Yeasts are single cell fungi with various shapes when viewed under a microscope. Yeasts are undesirable when they cause spoilage in foods such as jams, jellies, honey, sauerkraut, and beverages.



## Molds

Mold growth on foods appears fuzzy or cottony and may be colored. The mold consists of filaments called hyphae and the



whole mass of hyphae is called the **mycelium**. Hyphae may be growing below the surface of the food. Some molds do produce toxic substances (mycotoxins).

### **Growth Factors of Microorganisms**

All microorganisms require moisture, a food source, enough time, and suitable temperatures to grow and multiply.

**Moisture.** Bacteria are composed of approximately 80% water and it is an essential requirement for bacteria to grow. Moisture requirements vary for each species of microorganism. Bacteria in general need more water than yeasts. Yeasts require more water than molds to grow. If water is unavailable to bacteria in a food product, the bacteria may remain but will not grow and multiply. Certain components in foods will make water unavailable for microorganisms.

Water Activity ( $a_w$ ) describes the degree of water available in the food. Water activity in foods range from 0 to 1.0. The water activity for various foods are listed in Table 1.

Most bacteria cannot grow at a water activity of less than 0.91. Yeasts can grow at water activities as low as 0.87. Molds do not grow at water activities of less than 0.80. Water activity ranges are given for microorganisms in Table 2.

Sugar and salt added to foods "tie" up water and lower the water activity. When enough sugar or salt is added to a food, the water activity will be reduced to a level that will prevent microorganisms

from growing. Bacterial growth is inhibited by the addition of 5-15% salt while yeasts and molds can tolerate up to 15% salt. To inhibit mold growth, 65-70% sugar must be added. Only 50% sugar addition will inhibit bacterial and yeast growth. *Halophilic* (salt-liking) microorganisms require salt to be present for the organism to grow. *Osmophilic* (sugar-liking) microorganisms, usually yeasts, grow best at high concentrations of sugar. *Xerophilic* (dry-liking) microorganisms can grow with limited moisture.

**Food.** Microorganisms need a source of nutrients to grow and multiply. Individual microorganisms have specific requirements but all microorganisms need an energy source. Carbohydrates provide the main source of energy. Protein is also required by microorganisms for growth. Other nutrients vary according to the species. Plant and animal foodstuffs provide these nutrients for microorganisms to grow.

**Time.** When microorganisms have suitable conditions, reproductive growth will occur. Bacteria reproduce by dividing into two. Under favorable conditions (enough moisture and food available with the desired temperature), this division may occur every 20 to 30 minutes. The time that a bacterial cell doubles is called the **generational time**.

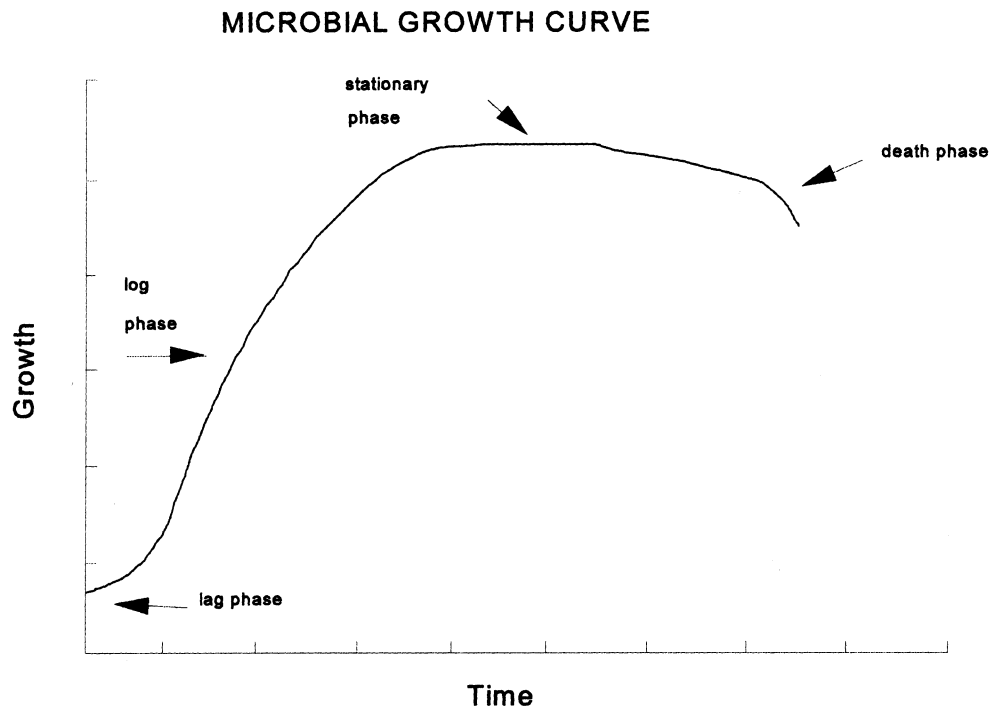


Figure 1.

Microorganisms do not grow at a constant rate. Figure 1 illustrates the growth curve for a microorganism. Initially the cells grow in size rather than number. This is called the **lag phase**. The next phase is the **log phase** where growth is rapid. Refer to Table 3 which illustrates the large numbers which can result from one cell under ideal conditions. The third phase is called the **stationary phase**. During this phase, the number of cells produced equal the number of cells that are dying; the total number of microorganisms remain the same. When the nutrients are depleted, the growth rate decreases. This is the **death phase**.

**Temperature.** Microorganisms grow best within certain temperature ranges. Bacteria are classified into three groups, depending on the temperature the bacteria grows best.

- *Psychrophilic* (cold-liking) bacteria
  - Growth range 0-25°C
  - Optimum temperature 20-25°C
- *Mesophilic* (middle-liking) bacteria
  - Growth range 68-110°F
  - Optimum temperature 20-45°C
- *Thermophilic* (heat-liking) bacteria
  - Growth range 45-70°C
  - Optimum temperature 50-55°C

The bacteria which cause foodborne illness in humans grow best at body temperature (98.6°F - mesophilic bacteria). Psychrophilic bacteria are responsible for food spoilage in the refrigerator. *Psychrotrophic* bacteria can grow at refrigerated temperatures and grow rapidly at room temperatures. Another type of bacteria is a *thermoduric* (heat tolerant) bacteria. This bacteria can survive but not grow and multiply at high temperatures.

Yeasts thrive best at room temperatures, but are capable of survival for many weeks at temperatures well below freezing. Moderate heat (60°C) for a few minutes will destroy yeasts.

Molds will flourish at room temperatures, but can grow from 32 - 108°F.

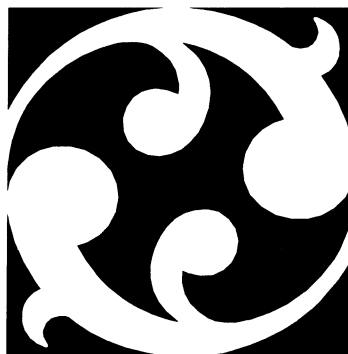
**Oxygen.** Microorganisms differ in their requirements for oxygen. **Aerobic** organisms require oxygen in the air to survive. **Anaerobic** organisms grow in the absence of oxygen. Oxygen is toxic to these types of microorganisms.

**Facultative anaerobes** grow in the presence or the absence of oxygen, preferring oxygen but capable of growth without oxygen.

Yeasts grow in the absence of oxygen, but multiply faster in the presence of oxygen. Molds are aerobic and require an abundant source of oxygen to grow.

**pH.** The acidity or alkalinity of a food affects the ability of a microorganism to survive and grow. pH is a measure of the acidity or alkalinity of a food. Most microorganisms prefer a pH near neutral (pH = 7.0). The general pH range of microorganisms are given in Table 2. A list of foods with their pH range is given in Table 1.

**Light.** Bacteria usually grow best in the dark, although it is not a requirement. Ultraviolet light is lethal to bacteria and may be used in some sterilization process.



**Table 1. pH values and  $A_w$  values of common foods.**

Food	pH range	$A_w$ range
Fruits, fresh (most)	2.8-4.6	0.97-1.0
Melons	5.2-6.7	
Juices	2.2-3.5	0.97
Vegetables, fresh, canned (low acid)	4.8-7.0	0.93-1.0
Tomatoes	4.1-4.6	0.93-1.0
Meats-fresh	5.3-6.4	0.95-1.0
Poultry	5.5-6.4	0.95-1.0
Fish	6.2-7.1	0.95-1.0
Processed meats/fish		
Ham	5.9-7.0	0.85-0.90
Lunch meat	6.2	0.93-0.97
Canned meat	4.5-5.2	0.93-0.97
Tuna	5.9-6.1	0.93-0.97
Eggs	6.0-9.5	0.90
Milk	6.5-6.7	0.98-0.99
Cheese	4.5-6.4	0.68-0.98
Butter	6.1-6.4	0.95-0.98
Yogurt	3.7-4.4	0.95-0.98
Flour		0.67-0.84
Pasta		<0.60
Cake		0.90-0.94
Breads	5.0-6.0	0.94-0.96
Crackers		0.10-0.20
Snack chips		<0.60
Jams, jellies	3.0-5.0	0.60-0.85
Honey	3.0-5.0	0.60-0.85
Mayonnaise	3.0-3.8	
Salad dressings	3.7	
Vinegar	2.9	



**Table 2. pH and A<sub>w</sub> of bacteria**

Bacteria	pH range	Minimum A <sub>w</sub>
<i>Staphylococcus aureus</i>	4.3-9.0	0.83
<i>Salmonella</i>	3.8-9.0	0.95
<i>Clostridium perfringens</i>	5.0-8.9	0.96
<i>Clostridium botulinum</i>	4.6-8.5	0.95
<i>Bacillus cereus</i>	4.4-9.3	0.93
<i>Listeria monocytogenes</i>	4.5-8.0	Unknown
<i>Yersinia enterocolitica</i>	4.4-9.6	0.97
<i>Campylobacter jejuni</i>	4.9-9.0	Unknown
<i>Vibrio cholerae</i>	6.0-11.0	0.97
<i>Escherichia coli</i> O157:H7	Unknown	Unknown

**Table 3. Bacterial Multiplication**

Time in minutes	Number of microorganisms
0	1
20	2
40	4
60 (1 hour)	8
80	16
100	32
120 (2 hours)	64
140	128
160	256
180 (3 hours)	512
200	1024
220	2048
420 (7 hours)	2,097,152

# Foodborne Illnesses

I must have the “flu bug,” is a common explanation for gastrointestinal upset. Flu-like symptoms are characteristic of many foodborne illnesses. Instead of the flu, food contaminated with pathogenic microorganisms may have been the cause of many stomach upsets.

It is estimated that more than 81 million cases of foodborne illnesses occur each year in the United States. Many of these illnesses are misdiagnosed as the flu and are not reported. Pathogenic (disease causing) microorganisms in food are the prime cause of foodborne illnesses.

Microorganisms that cause disease are found naturally in the environment. Food contaminated with pathogenic microorganisms usually do not look bad, taste bad, or smell bad. It is impossible to determine whether a food is contaminated with pathogenic microorganisms without microbiological testing. To avoid potential problems in foods, it is very important to control or eliminate these microorganisms in food products. Pathogenic microorganisms can be transmitted to humans by a number of routes. These routes include air, water, direct person-to-person contact, and food. Some pathogenic microorganisms can be transmitted to food by animals, or by contact with soil, or by contact with contaminated surfaces and equipment.

Diseases which result from pathogenic microorganisms are of two types:

infection and intoxication. **Foodborne infection** is caused by the ingestion of food containing live microorganisms (bacteria) which grow and establish themselves in the human intestinal tract. **Foodborne intoxication** is caused by ingesting food containing toxins formed by bacteria which resulted from the bacterial growth in the food item. The live microorganism does not have to be consumed.

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## **For a foodborne illness to occur, the following conditions must be present:**

- ▶ The microorganism or its toxin must be present in food.
  - ▶ The food must be suitable for the microorganism to grow.
  - ▶ The temperature must be suitable for the microorganism to grow.
  - ▶ Enough time must be given for the microorganism to grow (and to produce a toxin).
  - ▶ The food must be eaten by a susceptible person.
-

The most common symptoms associated with foodborne illnesses is diarrhea. Each pathogenic microorganism has its set of characteristic symptoms. Table 4 lists most of the pathogenic microorganisms with their growth ranges, nature of the illness each causes, and the time required for the symptoms to occur (incubation period). The table also lists the foods commonly associated with each pathogenic microorganism and control

measures to prevent or eliminate growth of that microorganism in food.

The severity of the foodborne illness depends on the pathogenic microorganism or toxin ingested, the amount of food consumed (dose), and the health status of the individual. For individuals who have immunocompromised health conditions, or for the aged, children, or pregnant women, any foodborne illness may be life-threatening.



**TABLE 4. Pathogenic Microorganisms and Foodborne Illness**

Organism	Growth Range	Foodborne Illness	Symptoms of Illness	Incubation Period	Implicated Foods	Control Measures
<b><i>Staphylococcus aureus (Staph)</i></b>	45 - 118°F (7 - 48°C)	Staphylococcal Intoxication	abdominal pain, nausea, vomiting, diarrhea	1-6 hrs	salads, cream filled pastry	1. Proper hand washing 2. Prompt refrigeration in shallow containers
<b><i>Salmonella</i></b>	43 - 115°F (6 - 46°C)	Salmonellosis Infection	abdominal pain, diarrhea, nausea, chills, fever	6-48 hrs	raw or undercooked meats and poultry, eggs, unpasteurized milk	1. Thoroughly cooked meat, poultry, eggs 2. Pasteurize milk 3. Prevent cross-contamination
<b><i>Clostridium perfringens</i></b>	60 - 122°F (15 - 50°C)	Clostridium Perfringens Infection/Intoxication	diarrhea, abdominal pain	8-22 hrs	meat, meat products & poultry	1. Cool foods to 40°F within 2 hours 2. Keep hot foods above 140°F 3. Keep cold foods below 40°F 4. Properly cook meat and poultry products 5. Reheat to 165°F thoroughly

Organism	Growth Range	Foodborne Illness	Symptoms of Illness	Incubation Period	Implicated Foods	Control Measures
<b><i>Clostridium botulinum</i> types A &amp; B</b>	50 - 122°F (10 - 50°C)	Botulism Intoxication	double vision, difficulty in speaking & swallowing, difficulty in breathing (can be fatal)	12-48 hrs	canned foods	1. Properly processed canned foods
<b>type E</b>	38 - 113°F (3.3 - 45°C)				fish	1. Properly processed fish
<b><i>Bacillus cereus</i></b>	42 - 122°F (5 - 50°C)	Bacillus cereus Intoxication	diarrhea, abdominal pain, nausea, vomiting	8-16 hrs	rice & rice dishes; meat & meat products; seasonings, spices	1. Cook food properly 2. Cool foods quickly 3. Prevent cross-contamination
<b><i>Listeria monocytogenes</i></b>	34° - 113°F (1° - 45°C)	Listeriosis	meningitis, abortion, fever, headache, nausea, vomiting	2 days - 3 weeks	vegetables, milk, cheeses, fermented meats	1. Pasteurize milk 2. Prevent cross-contamination 3. Cook foods properly
<b><i>Yersinia enterocolitica</i></b>	32° - 113°F	Yersiniosis	enterocolitis; may mimic acute appendicitis	1-3 days	raw milk, chocolate milk, water, pork and other raw meats	1. Pasteurize milk 2. Prevent cross-contamination with raw products 3. Cook food properly
<b><i>Campylobacter jejuni</i></b>	86° - 117°F (30° 0 47°C)	Campylobacteriosis	diarrhea, abdominal cramping, fever	1-7 days	raw milk, cake icing, eggs, poultry, raw beef, water	1. Pasteurize milk 2. Prevent cross-contamination 3. Cook foods properly

Organism	Growth Range	Foodborne Illness	Symptoms of Illness	Incubation Period	Implicated Foods	Control Measures
<i>Vibrio cholerae</i>	59° -108°F (15° - 42°C)	Vibrio infection	watery diarrhea, vomiting, chills, fever	12 hrs - 5 days	water, crab, shrimp, oysters	<ol style="list-style-type: none"> <li>1. Prevent cross-contamination with raw products</li> <li>2. Thoroughly cook shellfish, including oysters</li> </ol>
<i>Escherichia coli</i> 0157:H7	unknown* 113°F  (unknown - 45°C *no growth when incubated at 50°F (10°C) for 48 hrs)		severe abdominal cramps, bloody diarrhea, vomiting, nausea	2-4 days	ground beef, raw milk, chicken	<ol style="list-style-type: none"> <li>1. Pasteurize milk</li> <li>2. Thoroughly cook meat</li> <li>3. Prevent cross contamination with raw products</li> </ol>
<i>Trichinella spiralis</i>		Trichinosis	fever, muscular pain, weakness, swelling around eyes	8-15 days	pork, wild game	<ol style="list-style-type: none"> <li>1. Thoroughly cook to 160°F</li> </ol>
<i>Hepatitis A</i>		Hepatitis	lethargy, loss of appetite, nausea, vomiting, fever, jaundice	2-6 weeks	any food	<ol style="list-style-type: none"> <li>1. Proper hand washing</li> <li>2. Personal hygiene practices</li> </ol>

# Food Handling Practices

Food handlers in child care homes and centers serve food to children who are at high risk for foodborne illness. Young children are particularly vulnerable to microbial foodborne diseases due to underdeveloped immune systems. Food handlers are responsible for providing safe food to young children in child care homes and centers.

Reports of foodborne illnesses have made the headlines in recent years. Most of these outbreaks have involved food prepared away from home. Many cases of foodborne illness go unreported because the symptoms are similar to the flu.

Microorganisms that cause foodborne illness require the proper temperature to grow. They grow best at our body temperature. Microorganisms also need enough time to grow and multiply to high numbers to cause a foodborne illness. Water (moisture) and food, particularly protein, are needed for the microorganisms to grow. Some microorganisms can grow in the presence of oxygen and some cannot. The amount of acid (the pH level) is critical as to whether the microorganism will grow or not. (Refer to the section on Foodborne Microorganisms for more detail.)

First, let's distinguish between food safety and food quality. **Food Quality** refers to the wholesomeness of food; how does the food look, taste, or smell? What is the

nutritional value of the food? A limp carrot is not crisp which makes it undesirable, but it does not pose any health threat if it is eaten. **Food Safety** refers to any risk that poses a threat to your health. Food that is contaminated with a microorganism that may cause a foodborne illness is a food safety concern.

Foods contaminated with microorganisms are the cause of foodborne illnesses. Contaminated food does not always taste bad, smell bad or look bad.

Foods which have been implicated in foodborne illness outbreaks are referred to as potentially hazardous foods. These foods are:

- meat and meat products
- poultry and poultry products
- eggs and egg products
- milk and milk products including pastries with cream or custard fillings
- home canned low acid foods, such as vegetables and meats

These foods provide the appropriate nutrients for microorganisms to grow and multiply. If the food is left at room temperature for enough time, foodborne microorganisms that may be present will grow and multiply to large numbers to cause illness.

What food handling practices contribute to foodborne illnesses? If we examine the cause of reported foodborne illness outbreaks, we have some clues where microbial contamination can occur.

The ten most important factors which contributed to recently reported foodborne illnesses in the United States were:

### **1. Improper cooling**

- a. Leaving cooked foods at room temperature
- b. Storing foods in large containers in refrigerators

Foodborne microorganisms grow best at temperatures between 40°F and 140°F. Foods left at room temperature for more than 2 hours provide the ideal conditions for microorganisms to multiply rapidly. Over half of the reported foodborne outbreaks in the United States resulted from improperly cooled food.

*Clostridium perfringens* is a microorganism that is associated with improperly cooled foods such as soup, stew, chili, and other mixed food items.

Hot food stored in large containers in refrigerators or freezers does not cool down quickly. Microorganisms have conditions which favor rapid growth. Store foods in small shallow containers (3-4 inches). Refrigerate foods promptly. Food can be quickly cooled by placing the container in a sink filled with ice water; stir often, then refrigerate. Keep your refrigerator at or below 40°F. Purchase a refrigerator thermometer and check the temperature of your refrigerator often.

Baby bottles of formula or milk should not be left setting at room temperature. Partially consumed milk or formula should be discarded. Baby's saliva contains microorganisms which may contaminate the formula and these microorganisms can grow to large numbers if left at room temperature. Refrigeration only slows the growth of microorganism - so dispose of leftover formula. Non-specific diarrhea may result from consuming contaminated formula - a form of foodborne illness.

### **2. Lapse of 12 or more hours between preparation and eating**

Microorganisms need time to grow and multiply. Reduce the amount of time between preparation and eating of food to reduce the chance of any microorganisms present from growing to large numbers. Many foods are prepared ahead - prepare those foods which contain potentially hazardous foods closer to serving than those that have not been involved in foodborne illness outbreaks. For example, carrot sticks can be prepared 1-2 days in advance, but potato salad should be prepared in the morning of the day it is served for lunch.

If leftovers are used in your child care operation, use within 2 days. Leftovers should be reheated to 165°F and eaten immediately. Food left on children's plates should be discarded.

### **3. Colonized or infected persons handling foods**

*Staphylococcus* bacteria is found naturally on our bodies. If we have sores or pimples, these areas have higher numbers



of this bacteria. Persons who are ill also have higher numbers of "staph" microorganisms which may lead to foodborne illnesses if they contaminate food. Avoid touching your hair and face when handling food. Food handlers should wear plastic gloves to protect food if cuts or sores located on the hands. Do not handle food when you are ill. Foods often associated with "Staph" intoxication are those that are handled a lot during preparation such as potato salad, chicken salad and egg salad.

Wash hands often when handling raw foods such as poultry and meats and after coughing or blowing your nose, after handling garbage, after changing a diaper or helping children with bathroom duties. Numerous foodborne illness outbreaks have been reported in child care centers in Nebraska due to the hepatitis A virus. Hepatitis A virus is found in the feces of persons who are infected with the virus. Persons may shed this virus many days, even weeks before becoming ill from the hepatitis A virus. This virus is usually transmitted to food from contaminated persons not properly washing their hands after using the bathroom.

#### **Hand washing is extremely important to prevent contamination of food.**

Proper hand washing includes the following steps:

1. Lather hands with soap - a germicidal soap may be used but is not required.
2. Lather up to the elbows.

3. Rub hands together for 20 seconds; make sure you wash between fingers and around your fingernails well.
4. Rinse hands and arms with warm water to remove the soap.
5. Dry hands with a paper towel before turning off the water. Use the paper towel to turn off the water to prevent recontaminating your hands. Avoid "community" towels.
6. Use the paper towel to open the door.

Plastic gloves are recommended for use when a person has a sore or cut on their hands. Plastic gloves must be changed as often as a person would wash their hands to be a benefit. Before putting gloves on, wash your hands and upon removal of the gloves, wash your hands. When you wear gloves, a warm moist environment exists under your gloves, which provides microorganisms desirable conditions to grow rapidly on your hands.

#### **4. Inadequate reheating**

Cooked foods may become contaminated after heating. If these foods are not reheated to at least 165°F, microorganisms may not be destroyed. Use a thermometer to check the temperature of

foods to ensure that the proper temperature has been reached.

A microwave oven heats food quickly but uneven heating may result. To adequately heat foods in a microwave oven, interrupt heating and stir.

### **5. Improper holding (hot and cold)**

Temperatures between 40 - 140°F encourage the rapid growth of microorganisms in food. Avoid leaving food set out at room temperature for any length of time. Remember the **2 hour rule** - food should not be kept in the danger zone (40° - 140°F) for more than 2 hours. (See the Food Safety Thermometer.) This includes preparation and serving time.

Thaw meat and poultry in your refrigerator overnight or in a microwave oven. If thawed in a microwave, cook immediately. Never thaw meats on the counter at room temperature.

### **6. Contaminated raw food or ingredients**

Foods which come into contact with dirt and manure (eggs and produce grown with manure as a fertilizer) will contain a large number of microorganisms. Wash foods to remove dirt and manure. Do not use a dish detergent to wash vegetables. Detergents may not be properly rinsed from foods and could cause a person to become ill from the detergent residue.

Cracked eggs are also considered contaminated. Avoid using cracked eggs.

*Salmonella* is a microorganism that is associated with eggs and poultry. This microorganism is part of the normal microflora of poultry. Thoroughly cooking chicken, turkey, eggs and other poultry products will destroy *Salmonella* microorganisms. Eggs with uncracked shells are safe to use if cooked thoroughly before eating. This includes cookie dough! Pasteurized liquid eggs are available for commercial establishments and may be available in some locations for consumers. These eggs are *Salmonella* free. Egg substitutes can also be used.

Avoid feeding a baby out of the baby food jar. The unused portion may be contaminated by the baby's saliva. Again microorganism present in the saliva will grow and multiply and could cause illness. Non-specific diarrhea in infants may be due to this practice.

### **7. Foods from unsafe sources**

Reported outbreaks that have occurred from foods from unsafe sources, have been from seafood obtained from contaminated water sources and then the seafood was not properly heated. Avoid purchasing food from unknown dealers - know your supplier of your foods. If problems occur, you can always go back to the source to trace a problem.

Encourage parents to bring store purchased foods as treats rather than homemade foods. Foods such as homemade cupcakes with a pudding center may be mishandled and cause foodborne illness.

## **8. Improper cleaning of equipment and utensils**

Food left on work surfaces, equipment and utensils helps microorganisms survive for a period of time. When the equipment or utensil is used, microorganisms can be transferred to the next food. Wash cutting boards, utensils, and food contact surfaces with hot soapy water. Sanitize if necessary.

Recently a cutting board controversy made news headlines! Cutting boards whether wood or acrylic can be safely used if properly washed and sanitized. Heavily grooved cutting boards should be replaced - wood or acrylic shavings in food is not desirable. Colored acrylic cutting boards can be designated for specific uses such as a white board for bread, green for salads, pink for meat and poultry use. This will also prevent cross contamination.

## **9. Cross contamination from raw to cooked foods**

Do not allow juices from raw meat and poultry to come in contact with cooked food. Raw fruits and vegetables also can contaminate cooked foods. Wash these foods well before serving.

Poultry or meat juices left on a cutting board may contain microorganisms which could transfer microorganisms to the next food cut on the board. Items such as tomatoes and carrots for salads do not receive any heat treatment to destroy microorganisms that may be picked up from meat juices. Always wash cutting

boards in hot soapy water and rinse after each use.

It is important to wash hands often and clean equipment, utensils, and work surfaces after handling meat, poultry and raw fruits and vegetables.

Cooked foods should be stored above raw foods in the refrigerator. For example, meat juices from raw meat could drip into an uncovered salad. Keep food covered in the refrigerator if possible.

## **10. Inadequate cooking**

Consuming undercooked meats and poultry have resulted in foodborne outbreaks. A new emerging pathogenic microorganism, *E.coli* O157:H7 has been the cause of numerous foodborne illness outbreaks (and deaths) in children who have consumed undercooked ground meat. Thoroughly cook poultry and items which contain ground beef and pork. Poultry should be cooked to an internal temperature of 180°F. Pork should be heated to an internal temperature of 160°F and ground beef should be done when an internal temperature of 160°F is reached or until no pink color remains. Cooked meat juices should be clear.

It is not recommended to use home canned foods in a child care facility. The most serious cases of foodborne illnesses due to inadequate cooking result from not properly processing home canned low acid foods. The spores of the *Clostridium botulinum* microorganism can survive boiling water temperatures. Improper canned low acid foods may contain the

deadly toxin that is produced when spores grow into bacteria and multiply.

### **Cleaning and Sanitizing**

Good housekeeping is important.

Cleaning is the physical removal of visible soil and food waste from a surface.

Sanitizing is the reduction of the number of microorganisms to safe levels on food contact surfaces.

Proper cleaning steps include washing with a detergent with sufficient pressure to loosen and remove the soil; then rinsing with water to remove any soil and detergent residue. Equipment, dishes, utensils, and food contact surfaces should always be washed and rinsed before sanitizing. Sanitizing is not a substitute for cleaning - it is only effective if the surface is already clean. Sanitizing can be accomplished in two ways: either the item can be immersed in hot water (at least 170°F); or it can be treated with a chemical sanitizing compound.

Many types of commercial cleaning and sanitizing solutions are available.

Following are solutions made with chlorine bleach

for sanitizing dishes after washing and sanitizing food contact surfaces. ***Store chemicals away from food.***

Sanitizing Solution for Dishes:

½ tablespoon chlorine/gallon of warm water.

Sanitizing Solution for Food Contact Surfaces:

1 tablespoon chlorine/gallon of warm water.

**The Food Handler has the most control over the time and temperature.**

### **Suggested Activities:**

Refer to Table 4, Pathogenic Microorganisms and Foodborne Illness, and check the control measures to prevent each foodborne illness. Which ones have been discussed in this section?

Study the Food Safety Thermometer for temperatures that are important in maintaining the safety of your food.

Next conduct a food safety inspection using the Child Care Food Safety Self-Inspection form.

# ***Child Care Food Safety Self-Inspection***

A self-inspection will help your child care center meet the challenge of providing safe food to the children. Select and concentrate on one section at a time; choose a time when food preparation is in progress. Answer each question YES or NO. Questions that receive a NO answer, indicate an area that needs to be changed.

## **Personal Hygiene**

- \_\_\_\_\_ 1. Are food handlers well-groomed (clean clothing, hair restrained, clean hands - including fingernails)?
- \_\_\_\_\_ 2. Do food handlers wash their hands frequently? (after using the bathroom; coughing and sneezing; handling raw foods; handling dirty dishes; handling garbage)?
- \_\_\_\_\_ 3. Do staff members follow proper handwashing procedures?
- \_\_\_\_\_ 4. Are food handlers' hands free from cuts, sores? or if present, are they covered with water-proof protection?
- \_\_\_\_\_ 5. Are staff members generally in good health?

## **Purchasing, Receiving, and Inspecting Food**

- \_\_\_\_\_ 1. Are foods purchased from reliable suppliers and meet your child care center standards?
- \_\_\_\_\_ 2. Is the food checked for adequate frozen (0°F) or refrigerated temperatures (40°F), damage or insect infestation, expiration dates and other quality indicators before they are accepted?
- \_\_\_\_\_ 3. Is the food receiving area clean?

## **Food Storage**

- \_\_\_\_\_ 1. Are raw foods stored separately from cooked foods?
- \_\_\_\_\_ 2. Are food storage areas kept clean? Is the dry food storage are kept dry and between 40° and 70°F?
- \_\_\_\_\_ 3. Are foods stored in a way to ensure a first-in, first-out use? Are food packages and containers labeled to indicate contents and date of storage?
- \_\_\_\_\_ 4. Is the refrigerator maintained at 40°F and the freezer at 0°F or lower? Do you have an accurate thermometer in the refrigerator and freezer?

## **Food Service Equipment**

- \_\_\_\_\_ 1. Is the equipment in good working condition and proper procedures for operating the equipment followed?
- \_\_\_\_\_ 2. Is the equipment properly cleaned and sanitized after use?
- \_\_\_\_\_ 3. Are proper dishwashing procedures followed (manual and/or automatic)?
- \_\_\_\_\_ 4. Are cutting boards and food contact work surfaces properly cleaned and sanitized after each use?

## **Food Preparation**

- \_\_\_\_\_ 1. Are frozen foods thawed in a microwave, under refrigeration or under cold running water, or cooked directly in the frozen state?
- \_\_\_\_\_ 2. During food preparation, is food kept in the Danger Zone (40 - 140°F) for less than 2 hours?
- \_\_\_\_\_ 3. Are food items cooked to the proper internal temperatures?  
(chicken - 180°F, pork - 160°F, ground beef and meatloaf - 160°F)
- \_\_\_\_\_ 4. Is a thermometer used to check the temperature of a cooked product or refrigerated food?
- \_\_\_\_\_ 5. Are hot foods kept and served at 140°F or above, and cold foods at 40°F or below?
- \_\_\_\_\_ 6. Are hot foods stored in shallow pans and refrigerated immediately?

- \_\_\_\_\_ 7. Are raw fruits and vegetables washed thoroughly before serving?
- \_\_\_\_\_ 8. Is there minimal handling of foods during preparation?
- \_\_\_\_\_ 9. Is tasting of food during preparation done in a sanitary manner?
- \_\_\_\_\_ 10. Are leftovers reheated to 165°F and served immediately?

### **Infant Food Preparation**

- \_\_\_\_\_ 1. Are proper sanitizing procedures used for infant bottles and equipment used to prepare infant formulas?
- \_\_\_\_\_ 2. Do you check the expiration dates on the products before use? Is the top of the can washed before being opened?
- \_\_\_\_\_ 3. Is safe water used for infant formula preparation?
- \_\_\_\_\_ 4. Are the bottles labeled with the children's names and dated after the formulas have been prepared?
- \_\_\_\_\_ 5. Is the formula covered and held under refrigeration after preparation?
- \_\_\_\_\_ 6. Is the formula made from powdered formula used within 24 hours; or from concentrated liquid formula used within 48 hours?
- \_\_\_\_\_ 7. Is partially consumed milk or formula in bottles discarded?
- \_\_\_\_\_ 8. Is baby food removed from jars and served in dishes for infants? The remainder in the jar should be tightly closed, dated and stored in the refrigerator. Use opened containers within 72 hours.
- \_\_\_\_\_ 9. Is food warmed just before eating and not kept in the danger zone for more than 2 hours?
- \_\_\_\_\_ 10. Is uneaten food on plates discarded?

### **Serving Foods**

- \_\_\_\_\_ 1. Do children wash their hands before and after eating?
- \_\_\_\_\_ 2. Are tables, chairs, and highchairs cleaned and sanitized?

- \_\_\_\_\_ 3. Are utensils used instead of hands to serve food?
- \_\_\_\_\_ 4. Is silverware placed on tables in a way to prevent contamination; are replacements available if silverware is dropped on the floor?
- \_\_\_\_\_ 5. Are separate cloths and sponges used for children, table spills and floor spills?

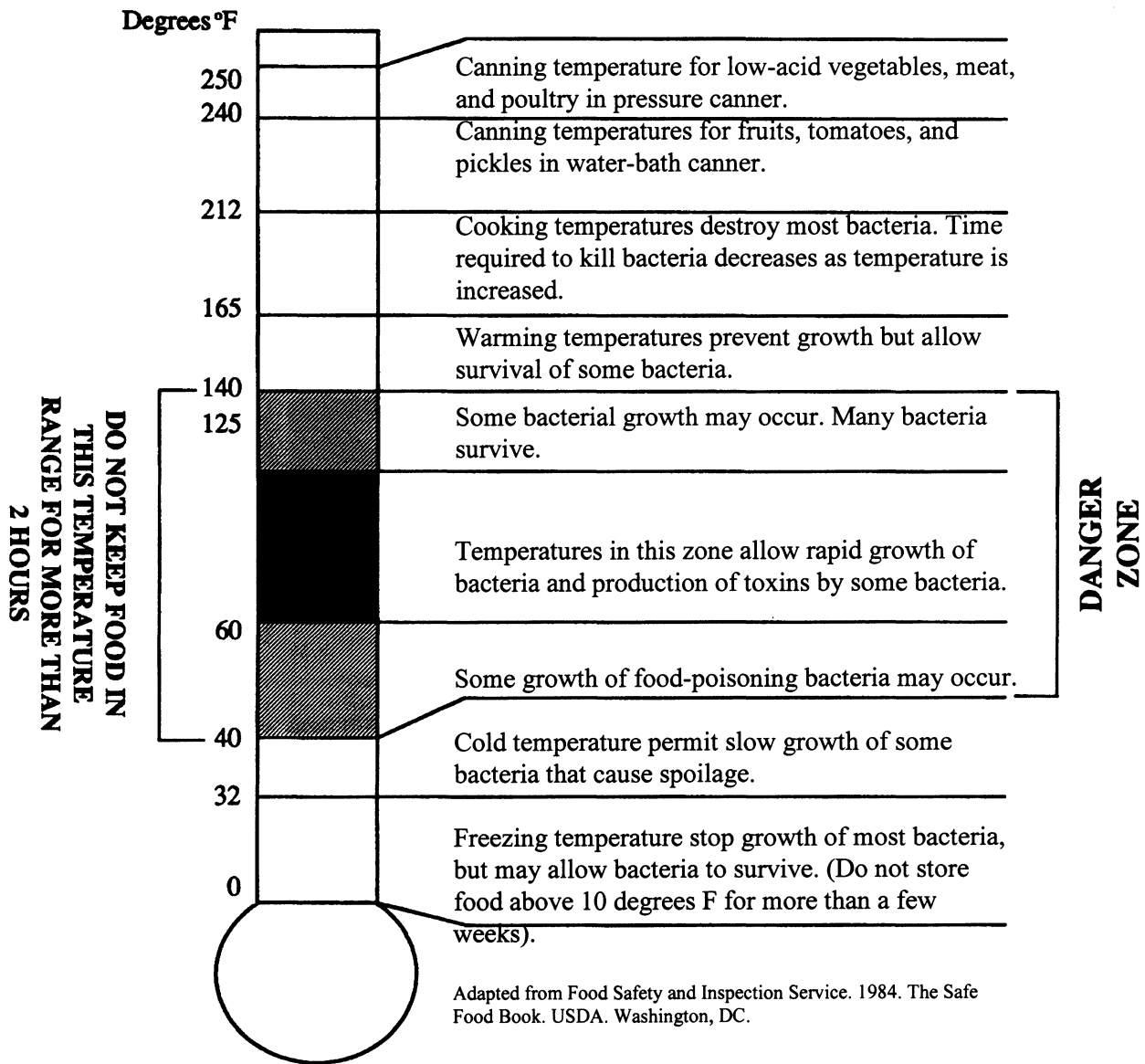
### **Facilities**

- \_\_\_\_\_ 1. Are the kitchen and eating areas kept clean?
- \_\_\_\_\_ 2. Is the garbage located away from food preparation, food storage and the children's play area?
- \_\_\_\_\_ 3. Are the restrooms kept clean and supplied with soap and single-use towels (or forced-air blowers)? Are wastebaskets emptied regularly?
- \_\_\_\_\_ 4. Is the diapering area away from the food preparation area? Is the area cleaned and sanitized; and soiled diapers discarded promptly?
- \_\_\_\_\_ 5. Are live animals kept away from food preparation and serving areas?

Adapted from: "Food Sanitation and Safety Self-assessment Instrument for Child Care Centers." 1990. California State Department of Education, Sacramento, CA.



# Food Safety Thermometer



# ***Food Storage***

Proper food storage can maintain food quality by retaining flavor, color, texture, and nutrients. Proper storage of your food also can reduce your chance of getting foodborne illness.

Foods can be classified into three groups based on how perishable they are. Perishable foods include meat, poultry, fish, milk, eggs, and many raw fruits and vegetables. All cooked foods are considered perishable foods. Perishable foods need to be held at refrigerator or freezer temperatures to store these foods for any time. If refrigerated, perishable foods should be used within several days.

Semi-perishable foods, if properly stored and handled, can remain unspoiled for 6 months to about 1 year. Flour, grain products, dried fruits, and dry mixes are considered semi-perishable.

Staple or non-perishable foods such as sugar, dried beans, spices and canned goods do not spoil unless they are handled carelessly. They do lose quality when they are stored over a long period of time even if they are stored under ideal conditions.

No one can tell you exactly how long a food will maintain good quality and be safe to eat because there are so many conditions that affect it. The storage life of foods are affected by:

- the freshness of the food when it reaches the grocery store

- the length of time it was in the store before you purchased it and the temperature at which it was held
- the temperature of your food storage areas
- the humidity level in your food storage areas
- the type of storage container or packaging in which the food is stored
- the characteristics of the food item.

## **How Food Spoils**

Food spoilage and deterioration is no accident; it is a natural process that occurs. To understand how we can maintain the quality of our food longer and to prevent spoilage, we need to know what can cause spoilage.

## **Microorganisms**

There are many types of microorganisms which can cause problems with food. Microorganisms which cause foodborne illness are called pathogenic microorganisms and grow best at room temperatures (60-90°F). Most do not grow well at refrigerator or freezer temperatures. Pathogenic microorganisms may grow in foods without any noticeable change in odor, appearance or taste. Spoilage microorganisms (some bacteria, yeasts and molds) can grow well at lower temperatures (as low as 40°F). When

spoilage microorganisms are present, the food usually looks or smells awful.

### **Enzymes**

Enzymes are naturally present in food. They are responsible for the ripening process in fruits and vegetables. Enzymes are responsible for texture, color and flavor changes. For example, as a banana turns from green to yellow to brown, not only does the color change but so does the texture. Unblanched frozen corn may taste like the cob over time. This is the result of enzyme action.

### **Air**

Oxidation is a chemical process in which air reacts with food components to produce undesirable changes in color, flavor and nutrient content. Oxidation is responsible for fats in foods to become rancid. Discoloration of light-colored fruits can be reduced by using an antioxidant such as ascorbic acid or citric acid before freezing these fruits. Vapor-proof packaging materials that keep air out of the container or package help reduce oxidation problems.

### **Light**

Light exposure could result in loss of color and vitamins. Light may also be responsible for the oxidation of fats.

### **Insects, rodents, parasites and other creatures**

These creatures require food to survive. They damage food by making it more vulnerable for further deterioration.

### **Physical abuse**

Bruises and cracks on raw produce leave areas where microorganisms can easily grow. Improperly packaged foods, dented cans, and broken packages allow places for microorganisms, air, light and creatures to enter the packaged food item. Gentle handling of food items will help maintain food quality and safety longer.

### **Temperature**

Temperature affects storage time. Foods deteriorate faster at higher temperatures. Recommended temperatures for storage areas are:

Cupboard/pantry	50-70°F
Refrigerator	34-40°F
Freezer	0°F or below

Microorganisms, both spoilage and pathogenic, grow faster at room temperature. To slow microbial growth, the enzymatic and oxidation processes, store foods at lower temperatures.

### **Time**

Microorganisms need time to grow and multiply. Other reactions such as oxidation and enzyme action require time for them to occur. Purchase reasonable quantities to avoid having food stored for long periods of time, especially perishable foods.

## **Cupboard/Pantry Storage**

Keep the cupboard or pantry clean, dry, dark, and cool. The best temperature range for dry and canned items is 50-70°F. Temperatures over 100°F can cause canned food to deteriorate and lose quality.

To prevent foods from spoiling, use a rotation system - FIRST IN, FIRST OUT. Older canned and dried food items will be used before newly purchased items. To help, you can date your food items with the date you purchased them.

Check canned items frequently for signs of spoilage. Do not use food from cans that are cracked, bulging, or leaking, or that spurt liquid when opened. Never taste these foods to determine their safety. Discard these cans immediately.

## **Refrigerated Storage**

Refrigerator temperatures do not destroy pathogenic or spoilage microorganisms. The lower temperatures slow down the growth of microorganisms already in the food. Perishable food will still deteriorate even at refrigerator temperatures due to spoilage microorganisms, enzymes, and oxidation. To maintain your food quality, time and temperature are important factors.

Use food quickly. Don't expect food to remain high in quality for the maximum length of time. Opened and partially used items usually deteriorate more quickly than unopened packages.

Maintain your refrigerator between 34-40°F. Refrigerator thermometers are available to help monitor the temperature in your refrigerator.

To store items, use foil, plastic wraps or bags, or airtight containers for most foods in the refrigerator. Open dishes of food cause refrigerator odors, dried-out foods, loss of nutrients and mold growth. Food placement in the refrigerator affects air circulation and efficiency. Don't stack foods tightly or cover refrigerator shelves with foil or any material that prevents air circulation for quick and even cooling of food.

Some food such as milk, meats, and leftovers should be kept colder than others. The coldest part of the refrigerator is usually the area nearest the freezing compartment. Use a refrigerator thermometer to check.

## **Freezer Storage**

Keep your freezer at 0°F or below to maintain the quality of your frozen foods. Most foods will maintain good quality longer if the freezer temperature is -10 or -20°F. At temperatures between 0-32°F, deterioration of food occurs more rapidly. Fluctuating temperatures, such as those in self-defrosting freezer compartments, are also more damaging to food quality. Do not plan to store frozen foods for the maximum suggested time if your freezing unit cannot maintain the temperature at 0°F. Foods stored properly longer than the maximum suggested time will not cause foodborne illness but will lose quality (color, texture, flavor, nutritional value).

Very low temperatures do not destroy pathogenic and spoilage microorganisms; these microorganisms will begin growing under warmer temperature conditions. When frozen foods are thawed at room temperature, the surface of the food is now warm enough for microorganisms to grow and multiply.

Check the temperature of your freezer frequently if it does not have a built-in thermometer. You can estimate the temperature by checking the consistency of ice cream stored in your freezer. If the ice cream is not brick-hard, the temperature of your freezer is too warm. A warning light or device may be installed that lets you know if the freezer is not operating or a plug protector may be used to keep the electrical plug in the outlet.

Time is an important factor in maintaining high quality frozen foods. Frozen foods will not last forever; check the chart for the maximum length of storage to maintain quality food products during storage. Label your frozen food items to maintain a rotation system. Use longer stored frozen items first.

Use foil, plastic wrap or bags, freezer paper, or airtight containers designed for frozen food storage. If white, dried-out patches are found on food, freezer burn has occurred. Improper packaging allowed air to dry out the surface of the food. The food will not cause any illness, but will result in a tough or tasteless product. Allow proper air circulation in your freezer.

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### **Solving Odor Problems in Your Refrigerator or Freezer**

If food has been allowed to spoil in a refrigerator or freezer, the strong odors may be extremely difficult to remove. After cleaning with a gentle household cleaning solution and water, use a bleach solution (1 tablespoon chlorine bleach per gallon of water) to rinse out the inside surfaces. While the unit is unplugged, leave the door open for a day or two to air it out. If the odor still remains, try one of the following methods:

- ⇒ Place trays of activated charcoal, clean kitty litter or baking soda on the shelves of the refrigerator or freezer or in a freezer cabinet. Run the refrigerator or freezer empty for 2 or 3 days. Activated charcoal can be purchased from stores that sell aquariums and terrarium supplies.
- ⇒ Place freshly ground coffee on cookie sheets in the refrigerator or freezer and close the door. Run empty for 2 or 3 days. A slight coffee odor can remain, but after washing the inside, it will soon disappear.
- ⇒ Pack each refrigerator or freezer shelf with crumpled newspaper. Set a cup of water on the top shelf or sprinkle the newspaper with water. Allow the refrigerator or freezer to run for approximately 5 to 6 days. This method takes longer but has been effective in removing strong odors.
- ⇒ There are also several commercial products available for removal of refrigerator and freezer odors. These products may be obtained from hardware, grocery, discount and variety stores.
- ⇒ Spray disinfectant around hinges and locks and into any openings. If the unit has been off several days, there is the possibility that the odor has gone into the insulation through any openings. If the odor has penetrated into the insulation, much work is needed to get it out. An air compressor might be needed to blow air into this section of the unit.

If the these methods do not satisfactorily take care of odor problems, it may be that the wet drippings from meat or fish have leaked into the insulation. This problem

would require service by a refrigerator technician, who may have to remove the liner and replace the insulation.

### Food Storage Chart

The following chart provides maximum storage times when the foods are stored under the optimum conditions. Use these times as a guideline for the maximum length of time to store foods.

**STORAGE PERIODS FOR RETAINING FOOD QUALITY**

Food	Room Temperature	Refrigerator	Freezer at 0°F
<b>MILK/MILK PRODUCTS</b>			
Milk		1 week	1 month
Butter		2 weeks	12 months
Canned or dry milk (unopened)	6 months		
Cottage cheese		1 week	3 months
Cream		1-2 weeks	
Ice cream			2-3 weeks
Margarine		1 month	12 months
Natural cheese		1 month	4-6 months
Processed cheese		1 month	4-6 months

Food	Room Temperature	Refrigerator	Freezer at 0°F
Sour cream, buttermilk, cream cheese		2 weeks	N.R.
Yogurt		1 month	
<b>MEAT</b>			
Fresh roasts, steaks, chops		3-4 days	2-3 months
Fresh livers, hearts, kidneys, other variety meats		1-2 days	3-4 months
Fresh ground meat, stew meat		1-2 days	3-4 months
Cured pork and lunch meat		1 week	N.R.
Cooked meat, gravies made with meat stock		2-3 days	2-3 months
Canned meat	1 year		
Meat pies, stews, casseroles, meat salads		2-3 days	3 months
Hotdogs		2 weeks (unopened) 1 week (opened)	1-2 months
Bacon		7 days	1 month
Sausage, raw from pork, beef, turkey		1-2 days	1-2 months
Smoked breakfast links, patties		7 days	1-2 months
Hard sausage-pepperoni, jerky sticks		2-3 weeks	1-2 months
<b>POULTRY/EGGS</b>			
Fresh poultry		2 days	6-8 months
Cooked poultry		2-3 days	6 months
Poultry stuffing		1 day	
Poultry pies, stews, creamed dishes, gravies		1 day	6 months
Poultry salads		1 day	
Eggs		2-4 weeks	1 year
Raw yolk, whites		2-4 days	1 year
Hardcooked eggs		1 week	N.R.

Food	Room Temperature	Refrigerator	Freezer at 0°F
Liquid pasteurized eggs or egg substitutes		10 days (unopened) 3 days (opened)	1 year unopened
Egg-containing products: custards, custard sauces, puddings, custard-filled pastries or cakes		1-2 days	N.R.
Puddings, canned		1-2 days (opened)	
<b>FISH/SEAFOOD</b>			
Fresh fish		1-2 days	3-6 months
Cooked fish		3-4 days	1 month
Fish salad		1 day	
Smoked fish		10 days	4-5 weeks
Canned fish	1 year		N.R.
Dried or pickled fish		3-4 weeks	
Clams, oyster (shucked) and scallops		7-9 days	
Crab		7 days	2 months
Shrimp		3-5 days	6-12 months
Lobster (shelled or unshelled)		3-7 days	6-12 months
<b>WILD GAME</b>			
Venison		3-5 days	3-4 months
Rabbit, squirrel		1-2 days	12 months
Wild duck, pheasant, goose (whole)		1-2 days	6 months
<b>FRUITS</b>			
Apples	Until ripe	1 month	
Citrus fruits		2-6 weeks	
Grapes		1-3 weeks	
Melons, most varieties		1 week	
Peaches, nectarines		2-3 weeks	



<b>Food</b>	<b>Room Temperature</b>	<b>Refrigerator</b>	<b>Freezer at 0°F</b>
Pears (mature but not fully ripe)		1-3 months	
Pineapple, ripe		1 week	
Other fresh fruit	Until ripe	3-5 days	9-12 months
Canned fruit	1 year	2-4 days (opened)	
Dried fruit	6 months	2-4 days (cooked)	
Fruit juice concentrates			1 year
Canned fruit juices	1 year	3-4 days (opened)	
<b>VEGETABLES</b>			
Asparagus		2-3 days	
Broccoli, brussel sprouts, green peas, green onions, lima beans, rhubarb, greens, summer squash, mushrooms		3-5 days	
Cabbage, cauliflower, celery, cucumbers, snap beans, lettuce, peppers, tomatoes		1 week	
Carrots, beets, parsnips, radishes, turnips		2 weeks	
Corn		1 day	
White potatoes, sweet potatoes, winter squash, rutabagas, dry onions	1 week (several months at 50-60° F)		
Canned or dried vegetables	1 year	1-4 days opened/ cooked	
<b>CEREAL PRODUCTS</b>			
Flour, white	1 year		
Flour, whole wheat		6-8 months	1 year
Rice, white	2 years		
Rice, brown	6 months		
Ready-to-eat cereals	1 year		
Uncooked cereals	1 year		
Pasta	1 year		
Corn meal	1 year		

Food	Room Temperature	Refrigerator	Freezer at 0°F
<b>BAKERY GOODS</b>			
Breads, baked with no preservatives		2-3 weeks	2-3 months
Breads, quick, baked			2 months
Cake, angel			6-12 months
Cake, baked, frosted			1 month
Cake, baked, unfrosted			2-4 months
Cakes, batter			1 month
Cakes, fruit			6-12 months
Cinnamon rolls, partially baked			2 months
Cookies, baked, homemade		2-3 weeks	6-12 months
Cookies, dough		1-2 days	3 months
Cookies, packaged		2 months	12-18 months
Crackers		2 months	
Doughnuts, unfrosted			2-4 months
Muffins, baked			6-12 months
Pies, fruit		2-3 days (baked) 1-2 days (unbaked)	6-8 month baked 2-4 months unbaked
Pies, pumpkin or chiffon		2-3 days	1-2 months
Rolls and bread, unbaked		2-3 weeks	1 month
Waffles			1 month
<b>MIXES/PACKAGED FOODS</b>			
Biscuit, brownie, muffin mix	9 months		
Cake mixes	6-9 months		
Casserole mix	9-12 months		

<b>Food</b>	<b>Room Temperature</b>	<b>Refrigerator</b>	<b>Freezer at 0°F</b>
Cookies, homemade	2-3 weeks		
Cookies, packaged	2 months		
Crackers	3 months		
Croutons and bread crumbs	6 months	6 months	1 year
Frosting, canned	3 months		
Frosting, mix	8 months		
Hot roll mix	18 months		
Pancake mix	6-9 months		
Pie crust mix	6-9 months		
Potatoes, instant	6-12 months		
Rice mixes	6 months		
Sauce and gravy mixes	6-12 months		
Soup mixes	12 months		
Toaster pastries	2-3 months		
<b>OTHER FOODS</b>			
Baking Powder	18 months		
Baking Soda	2 years		
Chocolate Syrup	2 years (unopened)	6 months (opened)	
Cocoa mixes	8 months		
Coffee lighteners (dry)	9 months (unopened) 6 months (opened)		
Cornstarch	18 months		
Gelatin	18 months		
Pectin	1 year		
Salad Dressings, bottled	12 months (unopened)	1-3 months (opened)	N.R.
Sugar, brown	18 months		
Sugar, confectioners'	18 months		
Sugar, granulated	2 years		

<b>Food</b>	<b>Room Temperature</b>	<b>Refrigerator</b>	<b>Freezer at 0°F</b>
Vinegar	2 years (unopened) 1 year (opened)		
Cheese, parmesan, grated	10 months (unopened) 2 months (opened)		
Coconut, shredded	12 months (unopened) 6 months (opened)		
Imitation bacon bits, etc.	4 months		
Peas, beans, dried	12 months		
Popcorn	2 years		
Whipped topping, dry	12 months		
Yeast, dry	Expiration date on pkg.		
Honey, jams, syrups, molasses	1 year		
Nuts, unshelled	6 months		
Nuts, shelled		6 months	
Peanut butter	6 months (unopened)	2 months (opened)	
Chocolate	1 year		
Coffee	1 year (unopened) 2-4 weeks (opened)		
Coffee, instant	6 months (unopened) 2 months (opened)		
Pudding mixes	1 year		
Shortening, solid	8 months		
Vegetable oils	1-3 months		
Tea, bags or loose	1 year		
Tea, instant	1 year		
Soft drinks	3 months		

Food	Room Temperature	Refrigerator	Freezer at 0°F
Bouillon products	1 year		
Mayonnaise		10-12 weeks	N.R.
<b>SPICES, HERBS, CONDIMENTS, EXTRACTS</b>			
Catsup, chili sauce	12 months (unopened) 1 month (opened)		
Mustard, Prepared yellow (refrigerate for longer storage)	2 years (unopened) 6-8 months (opened)		
Spices, whole	1-2 years		
Spices, ground	6 months		
Herbs	6 months		
Herb/spice blends	2 years (unopened) 12 months (opened)		
Other extracts	12 months		

## *Additional Activities*

A Food Safety lesson for children is available from the Early Childhood Training Center, 6949 South 110th Street, Omaha, NE 68128. It includes a leader's guide, youth activity masters, a video on food safety for children and the "Glo-Germ" kit to demonstrate proper handwashing.

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## Food Safety Evaluation Quiz Part 1: Knowledge Questions

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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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1. Your refrigerator should be kept at or below:
  - A. 50°F
  - B. 45°F
  - C. 40°F
  - D. 32°F
  
2. Reheated soup should be brought to at least what temperature before eating?
  - A. 120°F
  - B. 140°F
  - C. 165°F
  - D. 185°F
  
3. Foods that contain pathogens (bacteria that cause disease) always taste bad or smell bad or look bad.
  - T. True
  - F. False
  
4. Raw cookie dough is safe for young children to eat.
  - T. True
  - F. False
  
5. Beverages made with raw eggs are safe to drink.
  - T. True
  - F. False
  
6. Baby food can be eaten directly from the jar, resealed, and refrigerated for later use. It is.....
  - A. Definitely Safe
  - B. Probably Safe
  - C. Probably Unsafe
  - D. Definitely Unsafe

7. Cooked foods can be safely left at room temperature for up to:
  - A. 6 hours
  - B. 2 hours
  - C. 4 hours
  - D. Overnight
8. Home canned green beans can be used for your child care meals.
  - T. True
  - F. False
9. Ground meat should be cooked to what degree of doneness:
  - A. Rare (red center)
  - B. Medium (pink center)
  - C. Well done (brown center)
10. Which is a sanitizing chemical for dishes
  - A. Dish detergent
  - B. Lysol
  - C. Chlorine bleach
  - D. Warm water
11. Foods that are handled a lot while preparation (chicken salad sandwiches, potato salad) can be associated with “staph” intoxication.
  - T. True
  - F. False



# FOOD SAFETY

## Part 2: Practice Changes

Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).

Directions: Please read each practice. How often did you do these practices BEFORE and After reading the material in this chapter? Circle the number that best describes how often you did each practice before and after taking this study course.		<b>KEY</b> 1. Almost Never or Never 2. Seldom 3. About Half the Time 4. Often 5. Almost Always or Always	
FOOD SAFETY PRACTICES	BEFORE the Class	AFTER the Class	
1. Hot foods were properly held at or above 140°F for 2 hours or less.	1   2   3   4   5	1   2   3   4   5	
2. Properly cool and store foods in shallow containers.	1   2   3   4   5	1   2   3   4   5	
3. Prepare potentially hazardous foods as close to serving as possible.	1   2   3   4   5	1   2   3   4   5	
4. Wash hands often; before, during and after handling raw foods (especially meats, poultry), after changing diapers, emptying garbage, handling pets, or after any interruption.	1   2   3   4   5	1   2   3   4   5	
5. Reheat foods (precooked and leftovers) to 165°F.	1   2   3   4   5	1   2   3   4   5	
6. Handle raw foods carefully - use clean utensils, cutting boards, wash hands often, to prevent cross contamination.	1   2   3   4   5	1   2   3   4   5	
7. Transfer baby food from jar to a separate dish.	1   2   3   4   5	1   2   3   4   5	
8. Discard leftover formula not consumed at one feeding.	1   2   3   4   5	1   2   3   4   5	
9. Clean equipment, sanitize if necessary.	1   2   3   4   5	1   2   3   4   5	
10. Wash cutting boards with hot soapy water and rinse well between uses; sanitize often.	1   2   3   4   5	1   2   3   4   5	
11. Thoroughly cook all ground meat products - until brown.	1   2   3   4   5	1   2   3   4   5	

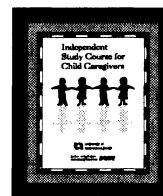
# Section 5

## The Caregiver





## The Caregiver: Taking Care of Yourself



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*In this topic you will learn to:*

- ➡ *Recognize signs and causes of stress and ways to handle it.*
  - ➡ *You will have the opportunity to look at the stresses in your life as a caregiver and to make plans for working on them.*
  - ➡ *It is important to recognize that it is not so much what happens to you, but rather, the way you respond to it that causes stress in your life.*
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- ☐ As you read this unit be sure to take the time to think about your situation as it relates to the material. The value lies in helping you personally, to understand and feel good about yourself and what you are doing for children and their families.
- ☐ Portions of this chapter have been adapted from Day Care, Families, and Stress by the Texas Department of Human Services.

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Each of our lives is an intricate web of relationships connecting our personal and professional worlds. Job, family, friends, and outside commitments all make demands on our time and energy and are closely related in the way they affect our performance both on and off the job. We are caught in the middle with all our allegiances and loyalties tugging from every direction.

Much of the frustration and stress that child care providers experience is the result of trying to fulfill all those commitments with unrealistic expectations. We view our professional and personal commitments separately and try to be a model of perfection in each role, thus creating a high degree of stress for ourselves. If we can look at the total picture of our commitments, we can see that our personal and professional commitments often compete for our attention; that our work will interfere with family life and our family life will interfere with our work; and that a juggling of priorities will be absolutely necessary. Balancing conflicting demands may mean trading off time and energy in one area today for time and energy in another area tomorrow or next week.

Survival in a profession that demands so much energy depends on our ability to negotiate between our various roles, accept our limitations, and help others appreciate the total scope of our commitments.

A child care facility can only be successful if the caregiver functions well. It is therefore important for you as a caregiver to understand yourself as well as the children and families with whom you work. Recognizing and meeting your own needs will make you a better caregiver and help

you to prevent burnout. You are the most important tool you bring to your role as a caregiver of children. It is therefore, crucial that you nurture and care for yourself as you seek to do the same for so many others.

### What is it and where does it come from?

Stress is defined by Webster's dictionary as a mental or physical tension or strain. It is a time when all of your resources do not



balance with all the demands being made on you. Feeling stressed is a state, like being happy, sad, excited, or angry. It's a physiological storm that runs through your body when you face anything unpleasant, perplexing, or uncertain. Your fight-or-flight response, a general call-to-arms of all your body's systems that have evolved as a survival mechanism over the years, takes over.

At some time each of us has had that keyed up feeling that puts our thoughts, bodies and emotions off course. When a child acts out or an angry parent calls, instead of fighting or running away, you have to handle the problem.

Stress comes into our lives in all degrees, from minor irritations to serious conflicts. Getting to work late can cause stress and so can rushing yourself and your children in order to be at work on time. All changes from divorce to happy events like getting married or having a baby produce stress.

The effects of stress are not always obvious. It may show up as a bad headache, a lower

back pain, or just feeling jumpy. It may also surface as a spat with your husband, child or co-worker.

Stress is usually thought of as a source of conflict and pain, but it has its positive aspects as well. For instance, stress causes us to change, frequently for the better. And stress is built into important growth processes.

Tackling the unknown always involves anxiety, even when the final outcome is pleasurable. A child learning to walk is often frustrated and anxious, but when he takes that first step, he is joyful. A school-age girl can feel pressured to excel on her baseball team, but when she finally gets a base hit, she feels proud of her accomplishment and her self esteem grows.

#### **CHARACTERISTICS OF STRESS:**

- ◆ Some forms of stress are common to all, some are peculiar to certain cultures or socio-economic groups and some are unique to certain people.
- ◆ Each of us perceives and deals with stress differently, depending on our personalities, environments, and backgrounds.
- ◆ Mild stress can result in improved performance, but intense stress or long periods of mild stress can result in poor performance.
- ◆ Long-term stress generally causes frustration, confusion, and despair.
- ◆ Some stress, however, is necessary to our well-being.

People begin to deal with stress at an early age. Children model their problem-solving skills on the behavior of the adults around them. Through imitation the child lays the groundwork for handling stressful situations throughout his or her life. Your role as a child care provider therefore is important to a child's learning to deal successfully with stress.

Each of us brings our own beliefs, attitudes and values to the process of resolving stress effectively. By understanding stress and practicing techniques to resolve it, you will be able to live a more balanced life, and more easily maintain a positive, constructive approach to taking care of yourself and the others around you.

#### **Stress signals.**

People under stress send out certain predictable signals that can be physical, behavioral, emotional or cognitive.

##### **Physical signals**

- Skin temperature changes (sweaty palms and cool, clammy skin)
- Heartbeat increases
- Muscles tense and hands tremble
- Stomach becomes upset (appetite fades, diarrhea may develop)
- Head feels light, faint

#### **Example:**

An inexperienced caregiver, Susan, was supervising outdoor play when a 4-year old boy, using a sweater as a cape, prepared to leap from the top of the jungle gym. The

caregiver caught the child as he started to jump. Seconds later, the teacher's hands were trembling and she felt sick. A few minutes later she was all right, but was still too upset to eat lunch.

**Example:**

As Cheryl, the caregiver, was driving to work she noticed that there was a police car with lights flashing, coming up behind her. Even though she was sure that she had not broken any laws, her heart began to race, her hands shook and she felt nauseous. The police car went on past her but she still continued to feel light-headed for several minutes.

**Behavioral signals**

- Performance changes positively or negatively
- Personality changes (may become more aggressive, more withdrawn, or confused)

**Example:**

An easy going caregiver who was worried about her own sick child at home, roughly pulled a little girl with wet pants by the arm as they walked down the hall to the bathroom.

**Example:**

Lyn is usually a happy, out-going toddler teacher. Recently she has been having problems with her marriage and has been late to work. She is often very quiet and withdrawn.

**Emotional signals**

- Emotional reactions, positive or negative, intensify
- Emotions swing rapidly from being very happy to being very sad

**Example:**

Mrs. Blake's husband's well paying job is uncertain and every day she expects to be told that it is over. She frequently cries for no apparent reason.

**Example:**

Susan recently became engaged and is planning on getting married next month. As the date gets closer and there are more and more things to do, Susan's moods swing from very happy to very upset.

**Cognitive signals**

- Judgment, perception, memory, and problem-solving ability may change positively or negatively

**Example:**

Margaret, the lead preschool teacher, is so upset by her mother's illness that she is unable to remember all the necessary details in order to plan adequately for the children in her care.

**Example:**

Linda is so frustrated with the two infant workers' inability to get along that she can not help them to solve their conflicts.

Physical, behavioral, emotional and cognitive stress signals often influence each other. Symptoms can quickly snowball from mild signals to all out alarms. A caregiver experiencing the stress of the Christmas season may send no other obvious physical signals except for a tense, strained look or a clenched fist, but a caregiver may show strong emotional and behavioral changes such as irritability and hurried actions. When a child interrupts work, caregivers may become angry, become withdrawn, eat less, or want to be left alone.

**How people handle stress**

Most people follow certain patterns in their behavior. If a person tends to withdraw, he usually follows a withdrawal pattern in stressful situations. An active person tends to become more active. People tend to do whatever is most comfortable for them, but the most comfortable response is not always the best solution.

How we handle stress depends on these behavior patterns and how we perceive the immediate stress. Because of individual differences in patterns and perceptions, a given problem may be impossible for one person to resolve, but easy for another. Even those who resolve problems fairly easily have a breaking point. Too many stresses, a serious crisis, or too much anxiety can cause any one to act in an irrational way.

Our ability to resolve stress also depends on the resources available to us. For example, a young mother who is deserted by her husband may not be able to continue to work at her present job without understanding staff support and inexpensive after-school care for her own children.

If stress is too intense, or too long lasting, harmful consequences may occur. When multiple stresses build up or when a person has developed an unhealthy pattern in dealing with stress, the chances of harm to that person, his/her family or the children in care, increases.

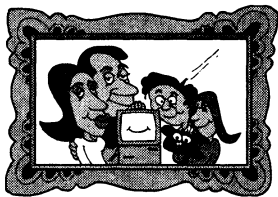
**Dealing with stress means:**

- Responding to it. The amount and degree of anxiety experienced will depend upon the situation.
- Pinpointing its cause and its effect on all concerned.
- Developing solutions for resolving it.
- Selecting the best solution to relieve it.
- Carrying out the chosen solution. It may be necessary to select another solution if the first is not effective.
- Mastering the stress in a reasonable way, which involves taking into account the needs of all concerned.

When an individual cannot resolve normal, daily stresses or more serious conflicts in their lives, they begin to develop multiple problems. As these problems become more numerous, the degree and amount of stress increases.

## **The Caregiver's Stress**

Everything about your life--family, childhood, friends, vocation, talents, hobbies, church, school, influences how you feel about yourself and how you cope with situations.



### ***Personal stress:***

Just as you are sensitive to other people, children, parents, and other staff members are aware of your feelings. Oddly enough, sometimes you may have more trouble recognizing your own stress than in spotting it in someone else.

### **Example:**

Carol was having a bad day at the center. All the children seemed to be in a bad mood--arguing, fighting, restless, and on edge. It wasn't until naptime that Carol began to think about the fight she'd had that morning with her teenage son over taking the car without permission. The argument had not only set her mood for the day, but it had also influenced the children she cared for. Although still upset with her son, she talked to the children after their nap and explained to them that she had been worried about a problem that morning and that she was sorry for being so grumpy. The rest of the day was active but much more pleasant and relaxed for everyone.



Can you think of a similar situation in your life? How did you handle it? Would you like to have handled it differently?

Taking time to think about how you feel is important because your feelings not only affect you but also all the people around you. By being aware of your feelings, you can more easily relate positively to the children in your care and create an enjoyable atmosphere that minimizes stress for everyone.

## **Child care stress**

All child care providers face many stressful situations in their centers. Your relationships with other staff members and the children in care can be one source of stress. Are you worried about keeping your job? How do you feel about other staff members and the director? Is everyone comfortable working together? Is there mutual respect for one another's skills and feelings? Is there a cooperative spirit among staff? What happens when a child's behavior is totally out of bounds?

When you are unaware of your true feelings about a situation, those unacknowledged feelings may govern your actions, preventing you from being an effective caregiver. Acknowledging your feelings and deciding what to do about them will allow you to make better decisions.

The key is in examining those feelings, recognizing how you feel about them, and selecting an honest and positive course of action rather than simply reacting to the situation. Do not feel disappointed or frustrated with yourself when you do not always do what is right. Most people learn from their mistakes. What is important is to learn to listen to yourself as well as others.



**Example:**

Mary was an experienced teacher who trained herself not to lose her temper with a child and caught herself in a self-deception. While correcting an active 8 year old for the fourth time for tearing up another child's art paper, she held his arm so tightly that he complained. She realized that, although she had trained her voice to remain calm, she hadn't trained herself not to feel anger. She displayed her anger without knowing it because she neglected to take her own feelings into account.

What would have been a better way to handle the situation?

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Children cannot understand mixed messages, such as hearing a calm voice but feeling a squeezed arm. It is better to tell a child when you are upset. By saying "I'm really upset with what you are doing; I will not let anyone tear up your paper and I cannot let you tear up theirs," you convey a more accurate and effective message.

**Example:**

Early in her career Ann arrived at her center one morning to find the pet white mouse dead. Unsure of her own feelings about death and afraid of how the children might react, she removed it before they arrived. How would you have handled this situation?

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A few years later Ann was with a group of children whose beloved gerbil died from old age. She encouraged the children to touch the gerbil and to talk about what made it so special. They buried him outside and later read a story about a child's pet that died. They occasionally talked about how they missed the gerbil and related their loss to other stories. Because Ann had become more comfortable with her own feelings about death, she was better able to help others deal with the stress of losing someone or something special when the gerbil died.

Can you think of a time that you may have sent a mixed message to a child? What was the situation and how did you handle it?

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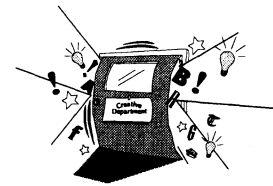
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With experience and practice you will be able to deal with difficult times very effectively.

As a child care provider you have a big job providing safe, happy, nurturing care for children. The job is demanding in many ways; it requires creativity, patience, stamina, and reliability. You are called upon to give guidance and constant support as well as love and respect. You not only experience the satisfaction of doing a difficult and demanding job well, but also experience the satisfaction of watching young people grow.



This satisfaction keeps a caregiver on the job. If there are too many frustrations, the joy and challenge of working with children

is overshadowed or lost. What can you do to ensure that your job is a source of joy rather than irritation?

You can recognize your feelings, skills, and limitations so that you avoid burning yourself out. If your daily life includes too many stressful situations and you have no chance to recoup your strength, you may lose your enthusiasm for working with children. Minimizing the negative effects of stress in your daily life will require self-discipline in setting priorities, planning, meeting your own personal needs, and maintaining healthy working relationships. Creating a balanced life filled with joy and fulfillment is no easy task.

Write one thing that you are going to do this week to help you to increase your enthusiasm for life.

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Caregivers are humans, not saints. You will have times when you are not working at your best. You must accept these low points for what they are and then do your best to work things out.

Assessing yourself and your program now and then will help you maintain your sense of direction. Frank assessments will help you spot and change things that are creating stress for you and for those around you. Sometimes a difficulty in one area sets off a chain reaction that affects several other areas and makes finding the original source of stress harder than it would have been if you had been alert to potential problems.

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## Looking at yourself:

Before you can begin to think about making changes in your life as a child caregiver, it may be helpful to identify problem areas. The questionnaire below will help you to look at yourself in an effort to see if child care is the place for you. Carefully read and ask yourself these questions and then check the answer that is most appropriate.

### Do I belong in child care?

Do I feel good about being a caregiver?

-hours worked?

-work facility?

-rules and regulations?

-pay?

-working with other staff?

-working with parents?

When things go wrong, do I put the blame on someone else?

Do I look for a solution to the problem?

Children imitate adults; does my behavior set a good example for the children?

Can I show affection and respect for each child?

Am I helping children live a happy, constructive life?

Never	Often	Always

**Do I understand children?**

	Never	Often	Always
Can I look at things from a child's viewpoint rather than from my own?			
Do I accept each child as a unique individual with special needs?			
Am I able to show a child that I respect his feelings, thoughts, and possessions?			
Am I aware of the child's relationships with other children?			
-with me?			
-with other adults?			
-with his parents?			
Am I aware when a child is tired?			
-hungry?			
-happy?			
-sad?			
-creative?			
-frustrated?			
-tense?			
-relaxed?			
Can I recognize when a child's behavior is unusual for him?			
Do I take clues from the children to determine what their needs are?			

## Do I provide what children need?

	Never	Often	Always
Do I give children the opportunity to learn and discover on their own by providing interesting, stimulating, and different equipment and experiences?			
Do I help the children accept limits which are suitable to their developmental level and the needs of the group?			
Do I help each child become responsible (to the degree that he is capable of being responsible for his actions)?			
Do I help each child become self-disciplined?			
Do I help children learn positive ways to deal with accidents like spilled milk or paint dripped on the floor?			
Do I help children learn how to use toys and equipment?			
Do I help children learn how to take care of themselves?			
Do I help children learn how to decide what to do when something is broken or out-of-order?			
Am I helping each child become more independent?			
Am I helping children cope with their problems?			
Do I help each child recognize and understand his feelings?			
When a child needs help communicating with others, do I help him learn to verbally express himself rather than hit, bite, cry, etc.?			
Do I give each child the opportunity, as well as encouragement, to work things out with someone?			
Do I give each child some time every day to communicate with me, to share something of himself with me?			

	Never	Often	Always
Do I make a point of praising a child for specific acts or characteristics rather than general praise, or criticism of his faults?			
Do I help children deal with noise?			
-respect the time and need for quiet?			
-find time and places for loud and boisterous activities?			
Do I help the child when he needs a time and place to be alone?			
Do I give every child a lap to sit on or a shoulder to cry on when he needs it (rather than make him feel he's too big for that)?			
Can the children depend on me for assistance?			
-information?			
-comfort?			
-fun?			
-guidance?			
-understanding?			

### Do I want to be a better caregiver?

Do I work at improving my skills as a caregiver?

Do I take every opportunity to learn as much as I can about how children grow, learn, and develop?

Do I take every opportunity to learn as much as I can about causes of stress and what I can do to help?

Do I welcome new ideas and suggestions from others?

Do I find ways to plan, share, and cooperate with co-workers?

Never	Often	Always

### Do I support the parents?

Am I willing to convey warmth and respect to each parent?

Am I willing to help a parent find help for a problem?

Do I share with the parent something interesting that his child has done?

Do I exhibit good parenting and teaching skills for parents who need an example to follow?

Do I help parents learn about child development so they better understand what to expect from their children?

Never	Often	Always

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- ☐ What did you learn about yourself?
  - ☐ Ideally, you will have checked *Always* on each question, but it will not be uncommon for you to find yourself checking *Often* or *Never* on some questions. Hopefully, *Always*, - assuming that *Always* leaves room for occasional lapses, will greatly out-number the other two and you will decide that you do belong in child care.
  - ☐ Look at the questions checked *Often*, and consider what you may need to do to be more consistent or better able to handle that area.



If you checked anything in the *Never* column, study the question to determine whether and how you can change. Be prepared to invest time and energy in order to get a good picture of your situation, to feel better about yourself and what you are doing. You will not be able to make all the changes you would like to, at one time. Choose one area to work on and go slowly until you are comfortable with the change. Then gradually work on the other desired changes.

Areas I would like to work on	Plan



### **Check Your Work Stress Level:**

After you have decided that you do want to be in child care and that there may be some things that you would like to work on, you will want to check your present stress level. We all experience some level of stress in our work and personal lives. Occasionally, however, stress overwhelms us and we exhibit physical, psychological, and behavioral symptoms that may be indicators that something is wrong. These symptoms may not be easy for us to see in ourselves, although family, co-workers, and friends may observe changes in us.

The following checklists are not precise enough to provide an accurate assessment of your mental health but they can be used as a beginning point for reflection.



✓ Check off the ways you express stress. You may want to circle the reaction to stress which gives you the most difficulty or the reaction which occurs most often.

1. Physical Signs

- \_\_\_\_\_ Always tired.
- \_\_\_\_\_ Often sick or in pain.
- \_\_\_\_\_ Regular headaches.
- \_\_\_\_\_ Recently gained (or lost) a lot of weight.
- \_\_\_\_\_ Trouble sleeping at night.
- \_\_\_\_\_ Stomach becomes upset after eating.
- \_\_\_\_\_ Spend a lot of time sleeping.
- \_\_\_\_\_ Grinding teeth.



2. Psychological Signs

- \_\_\_\_\_ Dislike getting up in the morning.
- \_\_\_\_\_ Often feel depressed or sad and do not know why.
- \_\_\_\_\_ Feel unattractive.
- \_\_\_\_\_ Dissatisfied with my life.
- \_\_\_\_\_ Often feel I would like to escape from my responsibilities.
- \_\_\_\_\_ Few people care about me.
- \_\_\_\_\_ People cannot get along without me.
- \_\_\_\_\_ Constant feeling of uneasiness.

3. Behavioral Signs

- \_\_\_\_\_ Do not get along with my co-workers.
- \_\_\_\_\_ Often argue with members of my family.
- \_\_\_\_\_ Have to do most things myself or they will not get done.
- \_\_\_\_\_ Increase in smoking or drinking.
- \_\_\_\_\_ Drugs make me feel more confident/comfortable with myself.
- \_\_\_\_\_ Other people make my life difficult.
- \_\_\_\_\_ Have trouble making my needs known to others.
- \_\_\_\_\_ Inability to concentrate for any length of time.

If you checked more than two items in any category, your stress level may be too high. Often the way you see your problems is the problem. Doing a periodic self-evaluation of how you feel about your job and about yourself, may help you to discover or continue to keep, a positive attitude and it may allow you to better nurture yourself and the children in your care.

As you continue to think about your stress level and look for ways to reduce it, you may find that doing some positive imaging will help you.

## **Imaging Exercise-5 minutes.**

- Close your eyes and relax your whole body until you feel like a rag doll.
- Gently review your day in sequence.
- At first, focus on the positive experiences.
- What do they look like?
- Where were you?
- What happened and who said what?



- ✿..... Smile and enjoy the memories. If you come to a memory of something you do not feel was your best effort, skip over it. After reflecting on these events, allow your mind to consider any negative experiences but this time imagine them as you wish they had been. This provides a mental rehearsal for the next time the opportunity presents itself. Be careful not to dwell on these but move on and look at the future.
- ✿..... Imagine what you would most like to happen for you in one week, one month, one year or three years. Be inventive, outrageous, and have fun with this. You can get enormous energy and drive by creating vivid pictures of your dreams.
- ✿..... Continue your imaging by gently reviewing your day tomorrow in sequence. Include some fun breaks, too, as well as the healthy life-style habits that you would like to acquire. As you visualize your day, see others responding to you in supportive ways. You may discover that they will react that way! You may not have been aware that your body language or other subconscious forms of communicating were contributing to their reactions to you which may have added to your stress.

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Positive mental imaging is one way of working with your mind and body in an effort to make a significant difference in your stress level, your energy, motivation and future performance.

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## How Can You Take Care of Yourself?

Now that you know some things about yourself and your situation, it is time to look at how you are presently taking care of yourself. Ask yourself the following questions and fill in the chart.

	With the children	With other staff	In my personal life
1. How do I take care of myself?			
2. What stops me from taking care of myself?			
3. Who helps me take care of myself?			
4. What am I willing to do to increase or continue taking care of myself?			
5. What do I need to take care of myself better?			

- ☐ Frequently, each of us needs to take time to be still, to reflect on who we are and where we are going in our personal and professional lives.
- ☐ Use of this type of self evaluation will allow us to make plans for continued growth and encourages us to move forward in making good decisions.

## Seeking Help When It's Needed

Working with children, especially those who need extra support and help, can be physically and emotionally draining. From time to time you will need the help and support of others in order to work effectively. Do not hesitate to make your needs known or to ask for assistance. Use other people's strengths to help you while conserving and building your own. Caring for children is rewarding but trying.

### Getting support from the staff

Only if you share what you are doing with other staff members will they be able to support you. Things generally go more smoothly when everyone has the same information and naptime may be a good time to talk things over with other staff. Just talking about a frustration may help and someone might have a tip to share based on a similar experience, a good idea, or a hand to give you help through a difficult time.

Sometimes you may need a specific kind of help. Consider what you can ask another staff member to do to help:

- ☞ You can ask for help with a group of children while you spend some time with one child needing your attention.
- ☞ You can ask someone to work with a special child while you devote your time to the rest of the group.
- ☞ If a child has difficulty during lunch, you can ask an aide, cook, or anyone to eat with that child to make his experience pleasant while you enjoy a relaxed meal with the other children.

- ☞ If transition times are a problem, you can ask someone to do something specific, such as being sure children don't forget to come back from the bathroom.
- ☞ Give yourself a chance to catch your breath and relax, perhaps by working out a system with another care giver so each can take a break from the children.

### Getting help from the director

It is important for you to have a good relationship with your director or administrator. You will feel and work better when you know that you and your job are respected and that care giving is seen as a cooperative effort. Be sure to let your concerns be known in a productive manner, ask for the help you need, respect the positions of others, and work with them to provide and maintain a happy, productive job for yourself and atmosphere for the children. You can expect your director to:



- ☞ Schedule staff meetings to coordinate plans for the center.
- ☞ Have a conference with you when you want to share plans and work out problems.
- ☞ Provide emotional and physical support.
- ☞ Respect your needs and feelings.

- ☞ Provide training sessions on child growth and development, planning activities to meet the needs of children, recognizing and working with special problems, and other related areas.
- ☞ Schedule conferences for and with you and other professionals involved with a child referred to your care.
- ☞ Seek volunteers to help you.
- ☞ Help strengthen the tie between the child's home and the center by supporting the parents.

#### Using volunteers.

Volunteers can be a tremendous help and support to any program for children, particularly when help is needed on a one-to-one basis. When a volunteer is available, consider how the volunteer can best meet the needs of your group, specific children, and you. Some suggestions for using a volunteer:

- ➡ Make plans with volunteers and discuss what is to be accomplished through their work.

#### Example:

A care giver arranged with a volunteer to come each Tuesday morning to work with a child. The plan was for the volunteer to spend some time helping Beth; to give the child time for cuddling, touching, and talking. The two spent some time working with toys; learning how to use them, seeing the fun they could be. Mary, the volunteer, also helped Beth watch and talk about

activities the others were doing, then helped her participate in similar activities. As the child began to relate to the other children, Mary was there to encourage her positive interactions.

- ➡ Draw on the volunteer's skills and talents.

#### Example:

The teen-age son of the center's housekeeper came to the center each afternoon to catch a ride home with his mother. The care giver made arrangements for him to play his guitar for the children for 15 minutes each afternoon as the children's parents arrived. The children liked the music very much and sang along, freeing the care giver to talk to parents.

#### Enlisting the help of parents.

Most people are willing to help when they understand the need, and parents are no exception. Parents are generally busy and tired from their work, but they usually feel good about contributing some of the time and talents to the center. There are many different ways that parents can participate from sending goodies, contributing new books or toys, to calling other parents or doing some computer work at home. Parents experiencing a great deal of stress do not need the added burden of helping out, but when the time is right, calling on them will be a way of recognizing them and helping them to feel good about themselves.

#### **How can you deal with S-T-R-E-S-S?**

Even when you have wonderful support and everything about caring for children feels

right, there will always be stressful moments. By maintaining good physical health and well-being, caregivers can avoid a great deal of stress. Here are a few suggestions to help you maintain your cool and keep a positive attitude. Choose one to begin to work on and then gradually add some others.

1. Accept those things that you are incapable of changing. Children will cry, make messes, and forget the rules, but that is okay. Listen to what you say to yourself. Challenge your assumptions and reword your self-talk to erase the self-defeating tape you may have been replaying in your mind. Remember the Serenity Prayer.

*"God, grant me the serenity to accept the things I cannot change, courage to change the things I can, and the wisdom to know the difference."*

2. Set reasonable goals.
3. Do not be too hard on yourself or others. Allow yourself and others to make mistakes and practice forgiveness. We learn a lot from our mistakes. Think about all the good things you do every day for children and do not dwell on the others. Don't be afraid to ask for help. It is not a sign of weakness but rather a sign of strength.
4. Find pleasure in the simple things in your job--a child's smile, a word of thanks, a hug, a success. Take a moment to relive and enjoy those experiences. What we focus on tends to expand.

5. Manage your time by setting priorities. Learn to say no and do not procrastinate. Do your least favorite tasks first, breaking them down into smaller tasks if necessary, then you can enjoy the rest of the day.

6. Don't try to "climb a mountain" when you are tired.

7. Eat nutritional foods.

8. Listen to your body. Get plenty of sleep and rest.

9. Exercise is one of the best remedies for stress, so participate in some form of regular exercise. Practice the relaxing sigh. Stand or sit up straight. Sigh deeply, letting out a sound of relief as the air is expelled from the lungs--ahhh. Inhale naturally. Repeat 8-12 times and experience the feeling of relaxation.



10. Do not let stress build up. Vent your feelings to someone you can trust and slow down. Limit your worry time. Write them down and put them in a worry jar. The secret is to "shovel while the piles are small."
11. Take time for yourself each day. Sit down, put your feet up, close your eyes and listen to a relaxing tape or do some other thing you enjoy--call a friend, read a book or develop a new creative outlet. Let your mind focus on fun things for a while.

12. Be kind. Choose your words carefully and respect the feelings of others. Say or do something nice for someone else.
13. Think positive thoughts, smile, and always look for the best in yourself, your situation, and others. Stop negative thinking before it overwhelms you.
14. Keep a sense of humor, laugh, smile, and enjoy your job. Put a funny cartoon where you will see it. Celebrate the day!
15. Plan ahead and continue learning.
16. Write things down. It is easier than trying to remember every thing.
17. Daydream more often. Imagine how you would like things to be.
18. Have a “good cry” once in awhile.
19. Hug someone.
20. Watch a sunrise or sunset.
21. Drop annoying time consuming obligations or acquaintances.
22. Take a mental health leave. Vacations are necessary to restore the body, mind, and spirit.

### **Taking a mental health leave**

From time to time you need to say, “I can’t handle this right now” without feeling bad about it. You and your family



may have special needs that require your time and energy. For example:

- ☞ Your spouse has an unexpected job change.
- ☞ Your parent is in failing health.
- ☞ Your child needs extra help with a school problem.
- ☞ You are regaining strength from surgery.
- ☞ You are physically or emotionally drained from work.

Any unusual activity can zap your energy, so do not feel bad if you need time for things to smooth out.

Be honest with yourself and others about your limitations. If you are temporarily unable to be consistent, positive, and generous, consider your options:

- Take a week off from work. Vacations are necessary to restore your energy.
- Decline, at least for the time being, to add a child to your care who needs special help. For example, you may feel that you can not physically handle an aggressive school-ager each afternoon after school. Or an abused infant and his family may need more care, support, and understanding than you feel you can give them.
- Move a child who is experiencing stress to another care giver. The child might function better with a different group of children. Remember that changes can

also cause stress, so consider what is best for the child before removing them.

- Shift your work schedule. Perhaps you can arrange to work with children in the mornings, then do something that is not child-related in the afternoon. Or work a split shift, leaving the center for several hours mid-day and returning for the afternoon.
- Get relief from co-workers. Work out a plan with another worker to give each other a 20 minute break in the morning and in the afternoon.

If after evaluating yourself as a care giver, trying to relieve your stress in healthy ways and arranging for mental health breaks, you still are not working at your best, you may need to call it quits.

### **When to call it quits**

There may be a time when you should “call it quits” on the grounds that your quitting is best for all concerned. You may quit working with children, or you may need to quit working with a specific child. It’s an individual decision.

It should come as no surprise that of two care givers given identical care responsibilities, even with the same group of children, one will decide to quit while the other will stay. What is surprising is that each may have made a correct decision. The decision to continue or quit is very personal, because each child, group, and care giver is unique.

Progress is sometimes very slow--almost non-existent--with some children and

families. It may take years for you to realize the effectiveness of your work with them. Many times you will never know. You may consider this lack of reinforcement an important factor in your decision to quit. There are other factors that may influence your decision.



The following check list will help you to evaluate your situation. Check those things that apply to you.

### **Personal feelings:**

- \_\_\_ Being tired, “burned out”
- \_\_\_ You’d like to quit, but you’re afraid of being marked as incompetent
- \_\_\_ It scares you to work with children with problems
- \_\_\_ You have strong feelings about a child and:
  - \_\_\_ you worry about him when you’re at home
  - \_\_\_ you feel repulsed, or have other negative feelings about him
  - \_\_\_ you become so angry you want to slap him
  - \_\_\_ you wish you could take him home because his parents aren’t taking good care of him
  - \_\_\_ you are relieved when he’s absent

### **Your health:**

- \_\_\_ Recuperating from surgery or illness
- \_\_\_ Limited stamina
- \_\_\_ Can’t lift heavy objects
- \_\_\_ Can’t move fast enough



**Assistance available to you:**

- ☐ Training is not offered or is insufficient
- ☐ Lack of emotional support
- ☐ Absence of an aide
- ☐ No one available to take children with problems for short periods
- ☐ Director not supportive

**Physical setting:**

- ☐ Crowded room
- ☐ Not enough equipment or supplies to offer wide choices to the children
- ☐ Lots of traffic through room
- ☐ Indirect route to playground
- ☐ Bathroom not adjacent to room

**Needs of parents:**

- ☐ Require a great deal of time
- ☐ Should have therapeutic help

**Your skills:**

- ☐ Have not received needed training
- ☐ Have difficulty relating to children with problems
- ☐ Lack of experience in child care

**Make-up of group:**

- ☐ Age or age-range
- ☐ Number of children
- ☐ Number with problems

**Needs of children:**

- ☐ Not able to function in this group
- ☐ Too out-of-bounds for group
- ☐ Too large to handle

- ☐ Need for more one-to-one help than you can give
- ☐ Could relate better to another care giver
- ☐ Should be in a therapeutic setting
- ☐ Is in danger and should be removed from the home

After evaluating the above factors, you may decide that your situation is very good or you may decide that you need a change. Your decision may be to not continue working with a specific child or not in a given setting. If you decide to quit, you should recognize that you have indeed nurtured children, contributed something to their lives, and made the most valid decision for yourself and your situation.

**Summary:**

Stress is both positive and negative. To some people, stress is the spice of life, but to others it is distressful and unsettling. Often the critical difference stems from how we react to the stress and the kind of adaptations that we make to life and its daily stresses.

Know in your heart that you are a very special person and that you have a big job caring for our children and their families. Be happy and be gentle and kind to yourself.



*Take time to think. It is the source of power.*

*Take time to laugh and play. It is the secret of eternal youth.*

*Take time to learn. It is the foundation of wisdom.*

*Take time to love. It is the secret of happiness.*

*Take time to be kind. It is a source of joy.*

*Take time to give. It is the way you will receive.*

*Take time to smile. It will make the world a better place.*

*Maryln Appelbaum*



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## **Glossary**

**Stress** -- A mental or physical tension or strain

**Physical** -- body processes

**Behavioral** -- the response of an individual to its environment

**Cognitive** -- based on knowledge

**Emotional** -- markedly aroused or agitated in feeling or sensibilities

**Imaging** -- to create mental images

**Psychological** -- affecting the mind

## **Resources available on this topic from the Early Childhood Training Center**

### **Print:**

Avoiding Burnout by P. Bloom

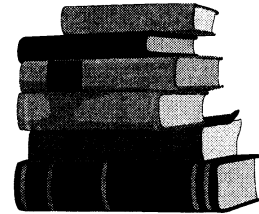
Blueprint for Action by P. Bloom

Life Education in the Workplace by K. Apgar

Preschool Director's Staff Development Handbook by K. Watkins and L. Durant, Jr.

Seven Habits of Highly Effective People by S. Covey

The Early Childhood Super Director by S. Baldwin



### **Magazines/Journals:**

"Conflict and Ambiguity Over Work Roles: The Impact on Child Care Worker Burnout", E. Manlove, *Early Education and Development*, January 1994.

Early Childhood News, March/April, 1995.

### **Video:**

Handling Stress - Today and Tomorrow

Stress and the Healthy Family

# THE CAREGIVER EVALUATION QUIZ

## *Knowledge Questions*



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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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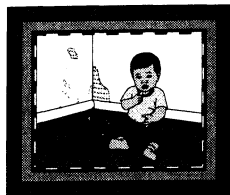
1. Stress occurs in everyone's life.
  - A. True
  - B. False
2. The effects of stress are almost always obvious.
  - A. True
  - B. False
3. Stress has both positive and negative effects.
  - A. True
  - B. False
4. Everyone reacts to stress in about the same way.
  - A. True
  - B. False
5. Children learn stress-management skills by observing role models such as parents and caregivers.
  - A. True
  - B. False
6. A person under stress may exhibit a mixture of physiological, emotional, behavioral, and/or cognitive stress signals.
  - A. True
  - B. False
7. Children are not usually aware of the caregiver's feelings.
  - A. True
  - B. False
8. When an individual can not resolve daily stresses, they may begin to develop multiple problems.
  - A. True
  - B. False

9. Under stress, a person's emotions frequently intensify.  
A. True  
B. False
10. People with few resources available to them have more trouble dealing with stress.  
A. True  
B. False
11. An upset stomach is a/an \_\_\_\_\_ reaction to stress.  
A. emotional  
B. physiological  
C. behavioral
12. Loss of memory or concentration is a/an \_\_\_\_\_ reaction to stress.  
A. cognitive  
B. physiological  
C. emotional
13. It is important for caregivers to \_\_\_\_\_.  
A. never become angry  
B. never let the children know that they are angry  
C. express their feelings, even anger, honestly and calmly to the children
14. Caregivers can ask for help from \_\_\_\_\_.  
A. the director  
B. other staff members  
C. parents  
D. all of the above
15. A director can help reduce stress for staff members by \_\_\_\_\_.  
A. having realistic expectations and providing adequate materials  
B. staying in the office
16. Caregivers can help maintain a positive attitude by \_\_\_\_\_.  
A. replaying negative tapes in their heads  
B. exercising regularly  
C. ignoring stress signals
17. Calling it quits is \_\_\_\_\_.  
A. never the answer  
B. always the answer  
C. sometimes the answer

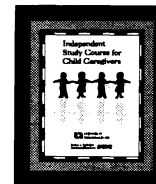
# Section 6

## Establishing and Maintaining a Healthy Learning Environment





# Establishing and Maintaining a Healthy Learning Environment



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## *Objective:*

- ➡ *Establish self evaluations/ inspections that will make a difference in a quality healthy child care business.*
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- ☐ In this chapter you will learn to identify and resolve certain risks that may lead to an unhealthy learning environment.
- ☐ The role of public health in child care is to prevent disease and injury, promote and maintain health, and protect against environmental hazards.
- ☐ Clearly written health and sanitation policy include exclusion guidelines, parent notification, food handling, diaper changing, and overall sanitation. To aid in assurance of these principles, providers will be urged to perform self-evaluations.
- ☐ This chapter is designed to assist you in creating a self-survey based upon your needs.
- ☐ In ascertaining your needs, suggestions will be given such as creating an anonymous survey box for staff to communicate complaints or concerns they may have about sanitation, safety, or existing procedures. Often times, staff are reluctant to be open with their directors due to embarrassment or fear of reprisal. Problems may be remedied easily if directors know about them.

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## PART I

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### ***FACILITY***

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Overall, the facility is to be maintained clean and in good repair. Hand contact and splash areas of doors and walls should be smooth, and easily cleanable. Remove any sharp objects or corners on the inside or outside of the premises. In center facilities, carpet is not allowed in food preparation or restroom areas. Carpets in other areas must be in good repair and easy to clean. Some carpets may actually be cleaned with bleach which would be ideal for spot cleaning body fluid spills. Keep gutters and downspouts clean and draining properly to avoid moisture and mold problems. Window screens are to be made sturdy to prevent children from falling, use of Plexiglas or window guards may be used. Certain areas of the facility need to have self-closing doors for safety and for pest control. These doors include bathroom doors that are directly by kitchen and dining areas, doors leading to the outside of the facility, and doors leading to basements.

### **Lead**

Many buildings that were built prior to 1978 contain high levels of lead. Because of lead poisoning, many children have suffered from brain damage, learning disabilities and behavioral problems. This poisoning could also cause fetal damage during pregnancy, blindness, and even death. Currently, lead abatement is one of the major concerns in environmental hazards in child care. The two most common ways in which an individual may become



poisoned is by eating (ingestion), and breathing (inhalation). Children indulge in hand/mouth contact much of the time. Therefore, chewing on a toy that has been contaminated in lead dirt or dust may easily occur. Children have been found in closets chewing on lead chips because of the sweet taste. Every building needs to be tested for any LBP's (lead based paint). Identifying where any problem exists gives you the knowledge where to begin abatement and how to manage the problem. Contact the Department of Health if you need help in identifying possible problems. Cribs painted with lead should never be used in child care. Window sills that are in reach of toddlers to chew on should be removed with a chemical stripper or the woodwork replaced.

In older homes with double hung windows, dust and dirt collect and bind with the existing lead. When these windows are left open, wind blows the lead containing dust into the air. Therefore, these windows and other areas affected with lead dust should always be wet washed and not vacuumed. Vacuuming collects the lead dust and emits the dust back into the environment from the bag (unless the vacuum is a HEPA vacuum). Use TSP (trisodium phosphate) or an automatic dishwasher detergent (Cascade, for instance) to wet wash lead clean-up. Playgrounds containing lead chips from nearby buildings should be cleaned immediately. Playground equipment should not contain LBP. A licensed lead contractor should always recommend proper ways to handle lead abatement to prevent the maintenance person harm from improper handling of LBP. Contact the Department of Health for more information on lead removal. Never attempt to scrape or sand affected areas.



## **Air Quality**

Air quality is important in maintaining a healthy environment. Providers should open a window for a few minutes (weather permitting) each day to allow for fresh air. Windows should always be screened to inhibit insect or rodent infestation. A positive air flow ventilation system is ideal. Furnace filters and humidifiers should be changed or cleaned according to the manufacturers' directions (as often as possible). Many germs, dust, allergens, molds, and fumes may reside in the ducts. Relatively inexpensive high efficiency furnace and vent filters are now available. Children are often sensitive to pollutants and may suffer from allergies and asthma.

Recommended room temperature during the winter may vary between 65-70 degrees, 72 degrees at floor level for infants. During the summer months, the AMA recommends 68-82 degrees with 30-70% relative humidity. When air conditioning is not available on very hot days, increase air movement with proper ventilation using approved fans and exhausts. Provide room thermometers in areas where the thermostat might vary from such as in the basement or a room on the north side.



Smoking within the building should never be allowed because second hand smoke can flow through the ventilation system to the nearby classrooms where children reside. Second hand smoke has been shown to be harmful. Smoking by the staff might be unfavorable as a role model to the children.

Other environmental concerns include radon and carbon monoxide poisoning. Radon and carbon monoxide detectors may be available through various agencies at a nominal cost. Carbon monoxide detectors may also be available in hardware stores. Check with your local health department.

Maintain all insulation well sealed without any flaky or crumbly material (friable). Older pipes, ceiling, and floor tiles may contain asbestos. If there is an asbestos concern, do not attempt to remove or repair yourself, check with your local health department. Long term exposure to asbestos could be harmful. Crumbling fiberglass insulation should be repaired.

Classroom activities consisting of one or more groups should be controlled acoustically by use of acoustical ceiling, carpeting, wall coverings, partitions, or draperies.

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## **Water and Plumbing Requirements**

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Water must be from an approved source. Check with your local health department if you have a well. For safety reasons, water should be maintained 100° degrees to 120° degrees to avoid scalding. Water temperatures of 133 degree temperature exposed to the skin for 3 seconds may cause burns. Water must be warm enough to effectively wash your hands and should never be cold. An individual would probably decline handwashing knowing that the water is too cold (or not wash long enough).

Each facility must have an adequate number of toilets and lavatories that are age appropriate in size. Remember, a child care center must accommodate the populations they service. Lavatories are to be 27" high or 4" lower than standard size (31"). Drinking fountains must have adequate pressure to clear the mouth piece and should never be contained in the same appliance as a handsink (to avoid cross-contamination). Faucets must have valves to mix hot and cold water. Faucet handles for handsinks must be able to be manipulated by the wrist (see diaper changing). All plumbing must be installed according to your local code.

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### **Water Tables and Other Play Mediums**

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Water tables are not recommended for use in child care because laboratory research has shown this common water basin is a vehicle for the transmission of illness causing organisms. Other alternatives are available such as using individual basins and then sanitize after each use or use other mediums such as pasta or beans instead of water in a water table.

Additionally, care must be taken when using other mediums such as play dough, clay, or pudding play. Always discard contaminated mediums. Discontinue use in case of a serious outbreak of a disease until the outbreak subsides. Use of individually marked containers of mediums is recommended during those periods of possible contamination.

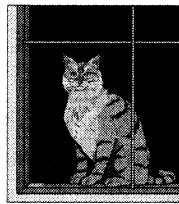
Maintain dress up clothing by replacing old play clothes often and clean as necessary.

Freshen newly donated used clothing outdoors in the sunshine for several hours, or launder as necessary. If an outbreak of head lice should occur, discontinue use of dress up clothes temporarily. Rotate clothing often, storing in a tight fitting bag for a week or longer may aid in delousing the articles. Always clean articles as needed by home laundering or dry cleaning.

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### **Animal Control**

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Pets may be an important part of your curriculum such as "Pet Therapy" or for science. However, if pets are not kept clean and healthy,

they could be a source of unwanted infection through contact with their wastes. Therefore, pets should be maintained in self-enclosed cages which control pet food and wastes. Larger pets such as dogs and cats should be kept away from play areas and handled only by staff. Other pets should be handled only under supervision by staff. Pets should be healthy and properly immunized. Exotic turtles and birds are not allowed because of the high risk of disease they impose.

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### **Napping**

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To ensure sanitary sleeping and napping arrangements, children should be placed three (3) feet apart to avoid rebreathing on each other and to minimize air born germs. Safe distancing will inhibit cross contamination from vomiting or sneezing. In infants, space can prevent a young child

from scratching or injuring their neighbor. All children should be strategically spaced head to toe, head to toe, etc. Children are to be given blankets at their request. Blankets may be laundered weekly or as necessary. Mats must be made of a sanitizable surface, one inch thick, sanitized daily if the child's name is not on it or weekly if their name is on it. If contaminated, mats must be sanitized as necessary. Use chlorine (1/4 cup per gallon) or a quaternary ammonia (400ppm). Store mats dry. During storage, sleeping surfaces of mats should not touch each other. Infant crib sheets should be changed every day or as needed.

Provide a waterproof mattress or cot for night time care along with a pillow and blanket.

Provide adequate storage for individual coats and belongings and label all articles, store all soiled clothing in waterproof containers. Do not store plastic protective pants for diapers with food products. Provide individual hooks for coats and ideally individual cubbies for mats. Store tooth brushes labeled, and in a clean and sanitary environment not touching each other. Inverted paper cups may be used and discarded as needed. Replace tooth brushes regularly.

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## **Garbage and Refuse**

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All garbage, inside and out, must be contained in tight fitting containers. An adequate amount of storage is needed to contain all garbage to prevent insect/rodent infestation and odor control. Dumpster lids must be kept closed.

These receptacles must be kept clean along with the surrounding areas.

## **HYGIENIC PRACTICES**

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### **Handwashing**

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The best way to avoid spread of disease is handwashing. One author describes cross-contamination as "hitchhikers." Plenty of soap and paper towels must be included by a handsink dedicated for handwashing only. Liquid soap is recommended, but an antibacterial bar soap may be used.

Remember that paper towels need to be stored in a clean environment and in a dispenser. Cloth towel roll dispensers are not recommended in child care. Children need supervision while washing their hands. Hands are to be washed by staff and children, upon entering the facility, while preparing foods or after handling raw foods, after handling dirty dishes or garbage, before and after eating, before preparing medication, after using the toilet; before and after diaper changes, after handling body fluids or wastes (blood, vomit, stool, urine, drool, eye matter), after a cough, sneeze or blowing your nose (or a child's nose), after playing with pets, after playing outside, before and after using moist items such as clay or play dough, and whenever hands look or feel dirty (Whew! Keep lots of lotion on hand!). Common uses of water basins pose great risks for hitchhikers.

Hands are to be washed with plenty of soap and water rubbing vigorously for 20-40 seconds over all parts of the hand, under warm running water, rinsed and dried with a single service towel or warm blower. The

water should be turned off with a paper towel or with the wrist to avoid recontamination of your hands. Faucets should be manipulated with the wrists and therefore contain wing blade or single lever faucets or foot pedals. Use of a nail brush helps to remove dirt under the nails. Handwashing is most effective using warm water when mixed through the same faucet.

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## **Personal Hygiene**

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Staff are to be well groomed, with clean clothing, clean hands, clean and short fingernails with no fingernail polish or nail jewelry when handling foods or activities that may result in contaminating the children. Hair must be restrained when handling food or infants. Food handlers must be free from cuts and sores and all staff should be in good health (No fever, diarrhea, etc.). Young children should always have access to a change of clothing with soiled clothing sent home in a tightly wrapped plastic bag. Plenty of tissue must be available for staff and children to cough into or sneeze.

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## **Toilet Training**

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Age appropriate size toilets are practical and more sanitary than the use of potty chairs. Toddlers are much more able to maneuver on a junior size toilet. Potty chairs are discouraged because of the risks of contamination while handling. Potty chairs must be cleaned and sanitized in a utility sink after every use. When standard toilets

or urinals are used, sturdy platforms made of a sanitizable surface must be used.

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## **Diapering**

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Sanitation in an infant room is critical in prevention of many diseases. A recent study concerning whether cloth or disposable diapers were the best concluded that the number one factor in

reducing germs was controlling the environment such as cleaning and disinfecting the faucet handles, the lid to the diaper pail, and the diaper change area. Other areas include the floor play areas, door knobs, and the mouthed toys.

The basic principle in an infant room is to separate the diaper change station from the feeding, food preparation, and food storage areas. This includes the staff's lunches, also. Dispose of soiled diapers in tight fitting containers. A diaper pail with a foot pedal is ideal. Diaper Genie's have been a miracle for infant rooms! Provide adequate ventilation either by a screened window or a fan (observe proper room temperatures). Use of chemical deodorizers may be harmful to children and staff and should not be used. Keep cups, toys, pacifiers, baby bottles, and all food away from the diapering area. The diaper station or changing table should be at least 3 feet off the floor to provide a clean environment and to keep other children away from. The surface must be sanitizable.

Rolled paper may be used and changed after every use (computer paper okay, but newspaper is not okay). Disposable diapers are preferred because of absorbency and because cloth diapers require more handling. Handwashing is the same as above.

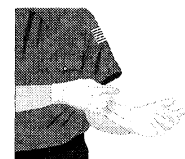
When actually changing diapers, make sure that all the equipment is right there so that your hand is on the infant at all times. Never leave an infant, even for a second!! Use gloves, especially if you are pregnant, have an open wound or if a known infection is present. Be careful that gloves are changed properly and between jobs. Care must be taken when removing the gloves. Hold the child away from you and never change on your lap or on a bare bathroom floor. Remove the soiled diaper and clothes. Place diapers in a lined, covered step can. Never rinse diapers or training pants in the toilet or flush down the toilet (disposable or cloth). Place soiled clothes or diaper in a plastic bag to go home. Clean the child's bottom with a moist disposable wipe. Wipe front to back using the towelette only once. Repeat with fresh wipes if necessary. Pat dry. Dispose of the towelette or paper towel in a lined, covered step can. Wipe your hands with a moist disposable wipe. Dispose of it in the lined, covered step can. Diaper or dress the child. You may now hold the child next to you. Wash the child's hands under running water and return child to play. Remove the disposable paper if used. Disinfect diapering area with an approved sanitizer (check with your local health department). Recommend using one tablespoon of bleach per quart of water (made fresh daily) or 400ppm of quaternary ammonia per quart of water. Finally, wash your own hands.

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## Using Rubber Gloves

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Gloves must always be made available for use when dealing with body fluids of any type, especially if a staff or child has an open sore, if pregnant (or anticipating pregnancy) or if an infection is known. The problem with disposable gloves is that often times an individual has a false sense of security because they feel they are protected and may forget to remove gloves after every job or as contaminated. Gloves are not a substitute for handwashing and that they are as easily contaminated as bare hands. Single-use gloves must be disposed of after each use, and hands must be washed after removing. Gloves must be used when handling blood or items, surfaces, or clothing soiled by blood or bloody body fluids. Wear gloves when cleaning bathrooms, diapering areas, or any area contaminated with stool, vomit or urine. Either single-use latex or utility gloves may be used for cleaning and disinfecting contaminated items or areas. Food grade plastic gloves are to be used for food handling only.



Remember that the outside of the glove should be considered a health hazard if contaminated with bodily fluids. To further protect yourself, avoid contacting outside surfaces of the used gloves with the bare skin. To remove the glove, grasp the cuff area of one glove, pull glove off hand allowing it to turn inside out. Contain the removed glove within the grasp of your

gloved hand. Place the thumb of your exposed hand underneath the cuff of the second glove and remove it by pulling inside out, over the first glove. Both contaminated glove surfaces are now contained. Practice makes perfect!

## ***SAFETY***

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### **Storage of Medications, Toxic Chemicals, and Firearms**

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Poisoning from medications and chemicals is one of the leading causes of accidents in children. Separate locked storage for medicine, chemicals, and firearms should be used. Locked storage means using a secure mechanical locking device. The plastic safety locks are not adequate in detouring children.



Read all labels on all products to determine whether the product is to be locked. If the product label reads "DANGER, WARNING, CAUTION", then lock these chemicals and store away from food or eating utensils.

Follow label directions when mixing or using products, because harmful fumes may occur by mixing certain chemicals or using too much. Many times a person may think more is better and will add a bit more causing the fumes to become too strong. Chemicals that are mixed inappropriately could actually cause a harmful chemical reaction. Children are sensitive to harsh fumes and may trigger asthmatic or allergic reactions. Air fresheners should not be used because these products may be too harsh for

children. Recommend cleaning the environment or providing adequate ventilation instead of use of chemical air fresheners (most air fresheners have a caution statement on the label).

There are several household plants that are on the poisonous list such as Amaryllis, Arrowhead, Azalea, Bittersweet, Buckeye, Caladium, Castor bean, Chrysanthemum, Daffodil, Dieffenbachia, Four o'clock, Foxglove, Gladiolus, Hemlock, Holly and berries, Ivy (Boston, English & others), Jack-in-the-pulpit, Jonquil, Lily-of-the-valley, Mistletoe, Morning glory, Mushrooms, Narcissus, Nightshade, Oleander, Philodendron, Poison ivy/oak/sumac, Pokeweed, Potato plant leaves, Rhubarb leaves, Sweet pea, Tulip, Wisteria, and Yew berry. These plants must be inaccessible to children.

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## **Playground**

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Playground equipment must meet Consumer Safety Standards. They must be anchored to the ground unless portable. Footings should be smooth and easy to maneuver around without tripping. Check for any sharp objects or screws/nail heads protruding, and broken glass. Equipment must not contain lead based paint. All equipment that is elevated from the ground must have resilient material below, rubber matting, pea gravel, approved sand, or grass. Swings should be placed away from traffic of other children. Remove any sink holes where children may twist ankles or water may stand. Do not allow standing water even in bird baths, to prevent mosquito breeding. Remove red ant hills and wasp nests. All brush, debris, and

leaves should be kept cleaned to avoid rodent infestation. Remove noxious weeds such as thistle. Maintain grass where necessary to avoid erosion.

Maintain walkways and stairways clean and free from slippery ice, snow or water. Avoid cracks and holes to avoid tripping or stubbing toes. Exterior surfaces must be free from splinters and loose nails. Cover the sand box at night only, to inhibit cat or dog contamination (sunshine is helpful in purifying the sand). Cover exterior air conditioning units if blades are accessible to children.

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### **Swim Pools**

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Maintain swim pools according to state and local requirements. Provide adequate locking devices on back doors leading to the pool areas. All exits leading to the pool area must be secured and locked at all times. Sliding screen doors are often flimsy and should be adequately secured.

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### **Miscellaneous**

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Overall, safety is a necessity. Electrical outlets must be covered or sufficiently grounded. All electrical wiring must be according to local code including appropriate ground fault interrupters (GFI). Never allow frayed wiring or exposes wiring that should be covered by conduit, for example. Often times during Christmas, wires are spread inappropriately. Never leave coffee pots or irons plugged in where children may reach them. Watch for

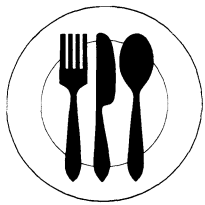
extension cords or wiring that could cause someone to trip. Round off any sharp corners on the inside or outside of building. Comply with your local fire marshal regulations. Use only UL approved heaters. Cover all hot radiators. Keep heaters away from reach of children. All heaters must have automatic shut-offs and must not burn incomplete combustibles (kerosene for example). Provide a suggestion box for staff, and parents to anonymously give suggestions concerning safety or sanitation. Keep children away from stoves, remove knobs if necessary, and always keep pot handles turned in when cooking on the stove top. Keep electric fans out of reach and maintain safe and secure fan blade enclosures.

### ***PEST CONTROL***

Many pests, whether bugs or mice, may harbor many diseases. Roaches have been found to have as many as 23 germs at one time. To avoid infestation, repair all holes and cracks in walls, foundations, windows, and cabinets. Screen windows and weather-strip doors, remember that a mouse may enter a space as large as a pencil, and a rat as large as the size of 2 pencils! Prevent any accumulation of moisture such as wet mops or leaky faucets. Clean all kitchen appliances every day and as needed with a disinfectant, this includes cleaning under small appliances such as toasters and microwaves, and move large appliances out regularly to clean behind. Store all foods closed or in tight containers. Keep shelves clean and dusted especially where sugar is spilled. Children should wash their hands after eating. Keep all recyclables rinsed



When serving family style, appropriate utensils, tongs, or food grade gloves must be



available. Use utensils that are easy for a child to use and not awkward. Remove any foods immediately in case of contamination (sneeze for instance). Any

leftovers must be discarded. Serve prepackaged items when possible (milk for example).

Children must be served on tabletops rather than eating on the floor. Never place baby bottles on the floor. Always serve food or snacks on plates, single service or paper plates or napkins; avoid serving directly on a tabletop. This includes children sitting in high chair trays; a napkin or plate (which may be paper) must be provided.

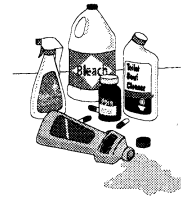
Store teething rings in the freezer on a sanitized tray or in a sealable plastic bag. Carefully store emergency ice packs in the freezer. Porous articles such as sponges should not be used. Use only items that are sanitizable such as rubber gloves filled with ice. Never store a reusable ice pack in the freezer without first sanitizing.

Use scratch resistant utensils and cookware. Avoid use of glass thermometers.

Be familiar with storage and handling of human milk using good food handling practices. Pump or express milk under a clean environment. Always date and label. Be sure to transport milk in a cooler with an ice pack and never refreeze. All baby bottles should be labeled with the baby's name and dated. For further information contact your local health department.

## Sanitize

All food contact surfaces must be sanitized. Any surface that touches food is considered a contact surface. Food contact surfaces include silverware, food prep areas, utensils, dining areas, high chair trays, certain appliances, etc. Teething rings and toys that are placed in the mouth must be sanitized daily or as needed.



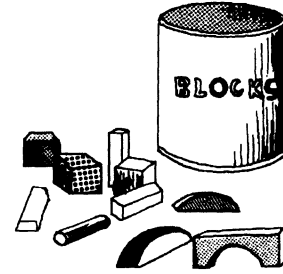
Sanitize these items using a high temperature dishwasher or by chemical using three basins to wash, rinse, sanitize, and air dry. Sanitize food prep or dining areas using a wiping cloth pail with 100ppm bleach, (one teaspoon per gallon), or use 200ppm of quaternary ammonia. Use chemical test kits to ensure that not too much or too little sanitizer is being used. When using a wiping cloth pail, the wiping cloth must be stored in the pail in between uses. A spray bottle with the same sanitizer strengths may be used, but only with paper towels. Change paper towels often. Remember that wiping cloths can be great hitchhikers!

Use only food service approved sanitizers when sanitizing food prep, dining areas and toys that are mouthed. Always follow directions on the product label for strengths of sanitizers in other areas such as bathrooms, floors, etc. Check with your local health department if you have any questions regarding approved sanitizers.



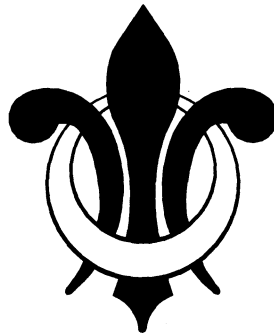
## ***MISCELLANEOUS SANITATION***

Toys must be maintained clean and sanitized weekly. Stuffed animals must be laundered weekly (or as contaminated).



Carpeting shall be maintained free from visible soil, vacuumed daily and shampooed at least every 6 months or as needed according to manufacturer's directions using non-hypoallergenic products. Carpets and rugs must be spot cleaned as needed when contaminated with body fluids. Again, check with the manufacturer directions.

Care must be taken when handling and storing mops. Mops should be cleaned thoroughly in fresh water and detergent, rinsed in a sanitizing dilution before and after in a day's use. Wring mops as dry as possible and air dry. Change mop water often and do not let stand for any length of time. Never dump mop water in a food prep sink or handwashing sinks, instead, use a mop sink only (never dump outside).



## RECOMMENDED DAILY CHECKLIST

- ☐ Hot water temperatures, 100-120 degrees?
- ☐ Immunization records current?
- ☐ Daily health check of children for symptoms?
- ☐ Isolation plan in effect for sick children?
- ☐ Diaper changing procedures adhered ?
- ☐ Soiled diapers stored in a lined, closed container that is in a well ventilated area and away from children?
- ☐ Hands washed before and after diaper changes of staff and infant?
- ☐ Changing surface sanitized after every use?
- ☐ Handwashing performed upon entry of child care, before eating, cooking, playing with pets, before playing with play dough by staff and children?
- ☐ All washable toys cleaned and sanitized as directed?
- ☐ Proper cleaning schedule for linens/blankets adhered ?
- ☐ Appropriate rest and nap area with blanket provided for each child?
- ☐ Thermometers used and monitored in refrigerators 41 degrees or below? Freezers 0 degrees or below?
- ☐ Does food handler have proper food handling awareness?
- ☐ All products labeled?
- ☐ Foods stored in sound condition and without spoilage?
- ☐ Evidence of rodents/insects?
- ☐ Soap and paper towels available at all handsinks?
- ☐ Can bathroom doors be opened from outside?
- ☐ Are all exit and bathroom doors self-closing where necessary?
- ☐ All appliances, and ventilation system sanitary and working?
- ☐ Humidifier cleaned and sanitized daily?
- ☐ Floors and all surfaces cleaned?
- ☐ Conducted a safety meeting? Provided a suggestion box?
- ☐ Medicines and chemicals stored and locked properly?
- ☐ First aid kit equipped properly?
- ☐ Pets contained in clean cage and immunized?
- ☐ Playground and exterior grounds clean and free from hazards?
- ☐ Existing lead based paint chipping or peeling? Window sills wet washed?
- ☐ Opened windows for a few minutes for fresh air, all openings screened?
- ☐ Adequate ventilation, lighting, room temperature, clean?
- ☐ Tissues readily available?
- ☐ Hands washed after wiping noses, cleaning up messes?
- ☐ Children allowed to brush teeth, toothbrushes stored properly? (Air dried and not touching others)
- ☐ Garbage lids on? Adequate number?
- ☐ Is info available on how to eliminate scabies, lice etc.?

**Glossary:**

*Hitchhikers*-cross-contamination

*Abatement*-make or become less such as in repairing a lead based paint condition

*Friable*-easily crumbled such as in asbestos or fiberglass insulation, ceiling or floor tiles, etc

*LBP*-lead based paint

*PCO*-Certified pest control officer

*Disinfect*-to destroy harmful bacteria, viruses, etc

*Sanitary*-clean, healthy condition

**Resources:**

AMA Pediatric Handout *Caring for Preschool Children*, Vol. I, Early Childhood Training Center Guidelines for Out-of-Home Child Care Programs, APHA and AMA, 1991 and 1992.

*Achieving High Quality Child Care*, Cooperative Extension Systems of the University of Idaho and the University of Nebraska Environmental Health Guidelines for Child Care Facilities, 1993.

*NEHA Infectious Diseases in Child Care Settings*, Mar, 93, Hennepin County Community Health Department., Minneapolis, Minn.

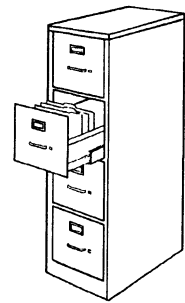
*Environmental Child Care Evaluation*, OAFB Environmental Health. Special thanks to all that helped Environmental Health, and MK , VJ & JF

## PART II

### ***CONTAGIOUS DISEASES AND IMMUNIZATIONS:***

Remember establishing and maintaining a healthy environment includes more than just the physical facilities. Keeping both the child caregivers as well as the children healthy is an intricate part of the whole healthy living process. Be sure your program complies with all local, state, and program regulations regarding staff members and children. This section will assist you in recognizing and identifying illnesses in a child, provide information on control of contagious diseases, and increase your knowledge concerning immunizations and vaccine-preventable diseases.

Center and family caregivers must have a current immunization and a copy of the schedule on file for each child. An immunization schedule should be included. It is highly recommended that all children prior to enrollment in a child care program have a physical examination. This information is especially significant if a child has a medical condition, such as diabetes, asthma, or allergies. Physical examinations are expected yearly.



Child caregivers are required to have a physical examination before employment begins, then annually. A copy of all health examinations and a listing of current medication must be kept on file. Check with your consultant or specialist to confirm what is required on the physical examination.

One cannot always tell when someone has a contagious disease. A person can spread an illness even before they show any signs or symptoms. Therefore, it is necessary that providers/children always follow procedures to recognize and prevent the spread of diseases.

### ***HOW CAN YOU STOP THE SPREAD OF DISEASE DURING THE DAY AT YOUR CENTER?***

#### ***When providers arrive***

- ✓ Washing hands should be the first order of business.
- ✓ Next check to see that all supplies that will be needed during the day are ready.

### *When the children arrive*

- ✓ Check to see if a child has any of these symptoms of illness:
  - ▮ Severe coughing or breathing trouble.
  - ▮ Yellowish skin or eyes.
  - ▮ Infected eyes or skin.
  - ▮ Unusual spots or rashes.
  - ▮ Flush face or feverish appearing.
  - ▮ Any unusual change in behavior, such as cranky, less active, cries frequently and/or general discomfort.
- ✓ Be sure to check the body and scalp if you notice frequent scratching. If you notice any of these symptoms, separate the child from other children. Notify a parent. Communicate with the parent. Be sure you describe the symptoms of the child and what you recommend or expect them to do. Your program should have a written policy regarding sick staff and children. Parents should be given a copy of such policies when a child is enrolled in the program.
- ✓ A child should be observed for the same symptoms as described above throughout the day. Other signs of sickness include diarrhea, loss of appetite, vomiting, headache, sore throat, and unusual color of urine or stool. Because you care for the children in your group every day, you are probably used to the way they look and act when they are healthy. Hence, this makes you better able to notice when a child is sick.
- ✓ Try to keep children from different groups from mixing with each other. This way, if one child has a contagious disease, only the children in his group will be exposed. Children in other groups will be protected. Fewer staff and children will be at risk of becoming ill. If a child becomes sick, separate them from other children.
- ✓ When children leave the center at the end of the day release the child directly to a parent/guardian. Communicate with that parent/guardian any concerns you may have about the child. Send home any soiled diapers or clothing in a plastic bag.

### ***There are three ways that diseases occur and are spread in child care centers.***

- ☐ First, diseases that are spread through the intestinal tract. These germs enter a person's mouth, then pass through the stomach into the intestines and multiply. Various types of diarrhea (salmonella, or shigella) and Hepatitis A are examples of intestinal tract illness.
- ☐ Second, another group of diseases that frequently occur in child care centers are spread from the respiratory system of one person to another person. These diseases are spread through the air when a person coughs or sneezes, or even talks or laughs. Germs can also

be spread by contact with saliva or the running nose of an infected person. Respiratory germs can live on cloth, tissues, or other surfaces for hours or even days. Diseases of the respiratory tract include bacterial meningitis, chicken pox, colds, flu, and strep throat.



- Third, this group includes diseases that spread by direct contact. Someone can catch these diseases simply by touching the affected area of another person's body. The most common diseases in this group include head lice, impetigo, scabies, and ring worm. Another way to stop the spread of germs or illness are vaccine preventable diseases. Several diseases that used to be terrible problems for children and adults can now be prevented by vaccination. This group includes measles, mumps, German measles (rubella), polio, diphtheria, tetanus, whooping cough (pertussis), Hepatitis B, and Haemophilus Influenzae. Some people think these diseases no longer exist or are no longer problems. THIS IS NOT TRUE. Some cases still occur. The reason these diseases are no longer widespread problems is that people are being IMMUNIZED. If people stopped getting these protective shots for themselves and their children, these diseases would once again become common problems. Children in general spread disease easily because of their close contact with people and their environment. Young children in child care groups are especially likely targets for disease. For this reason, ALL children in child care centers and the adults who work with them need to have ALL recommended vaccinations. Here is some information about specific diseases that can be prevented by vaccination:

**Diphtheria** -- now a rare but dangerous disease caused by bacteria that infect the nose and throat. Incubation period is 2 to 6 days. A person with diphtheria often has a sore throat and swollen tonsils with a grayish covering. Sometimes the infection leads to severe throat swelling that can block breathing. The greater danger with diphtheria, however, is that the disease bacteria produces a substance that can permanently damage the heart and nervous system. Temporarily exclude the sick child from the center. (The child can return when the health department informs you it is safe.) Refer any possible case of diphtheria in your center to a doctor immediately. To avoid spreading this disease, immediately contact your Health Department to find out what preventive measures should be taken. All children and staff should be observed for sore throats for seven days. Anyone developing a sore throat should see a physician. Incompletely immunized children should see a physician. Be especially careful about group separation and hygiene.

**Measles** -- caused by a virus that spreads through the air (and possibly in child groups in contact with saliva). Among people who are not immunized, measles is one of the most easily spread diseases. A person with measles can spread the infection from four days before the rash begins, and until four days after it disappears. The incubation period is about two weeks. Measles begin with a fever and upper respiratory illness. The fever often goes very high before the rash appears. The red-brown blotchy rash usually starts on the face and spreads down the

body. Most children with measles become quite ill but recover normally. Occasionally, however, measles can lead to pneumonia or inflammation of the brain. Adults and very young children tend to have more severe illness. A sick child should temporarily be excluded from the center. (He can return 5 days after the rash appears.) To avoid spreading the disease, notify your local health department immediately of any known cases in your center. They can help decide if a special immunization program or other treatment is needed for those in close contact with the infected person. Identify any children and caregivers who are not immunized. They should be immunized or excluded from the center until 2 weeks after the rash appears in the last case of measles in your center.

**Mumps** -- another disease that is caused by a very contagious virus. An infected person can spread mumps for a week or more before and after swelling begins. A person develops mumps about two or three weeks after contact with the virus. The incubation period is about 14-21 days. Mumps cause swelling of the glands at the jaw angle and sometimes affects other internal or external glands as well. It is usually accompanied by cold-like symptoms. The sick child should be temporarily excluded from the center. (He can return after swelling subsides or 9 days after swelling begins.) Notify your Health Department immediately. To avoid spread of infection, be especially careful about group separation and hygiene. It is important to remember that mumps can be especially serious in men who have not been immunized.

**Pertussis (whooping cough)** -- a very contagious bacterial infection of the respiratory tract that was once a common cause of death in young children. The disease begins with a stage that is like a cold. This is the stage when the disease is most contagious to others. It then develops into a severe respiratory disease with repeated attacks of violent coughing. The incubation period is 1 to 2 weeks. Whooping cough gets its name because of the whooping sound the child makes as he tries to draw breath after a coughing spell. Not all children with whooping cough make this sound. Very young children may not be strong enough to produce this sound. Immediately notify the local health department if a case of pertussis is diagnosed in a child who attends your center. A child with pertussis should be excluded from the center. (He can return 4 weeks after intense coughing begins, or 5 days after antibiotic treatment has begun). To avoid spread of the disease, be especially alert for coughs in other children for a two week period. Children who develop coughs should be sent home until a physician sees them. Be especially careful about group separation and hygiene procedures.

**Polio** -- caused by a virus that spreads easily, especially among children. Most people know that as recently as the 1950s, polio could spread rapidly through communities and child groups, causing paralysis and even death in some children and adults. Although immunization has fortunately made it an uncommon disease in the United States, polio is still very common in other parts of the world. Continuing immunization is the only way to protect children and their communities from polio.

**Rubella** -- caused by a virus that is very contagious among people who have not been immunized. The only ways to know for sure if someone is immune are proof of immunization and a blood test to check immunity. A person's belief that he had rubella as a child is not good enough evidence. One might have had a similar illness instead of rubella. In this case he would not be immune. The incubation period is 14 to 21 days. This virus causes a milder illness than measles, with fever and red rash. Adults usually have a more severe illness than children. Some people with rubella may not develop a noticeable rash. A sick child should be temporarily excluded from the center. To avoid spread of the disease, be sure that every child attending your center is immunized. Just as important, be sure that every woman working in your center knows that she is immune. Any pregnant staff member should see her physician. Immediately report any suspected case of rubella at your center to your local health department. They can help confirm the disease through specific blood tests. They may wish to test caregivers and children and to immunize those who are susceptible right away. Be especially careful about group separation and hygiene procedures.

**Tetanus** -- is caused by a certain bacteria that live in even very small amounts of soil which enter the body through cuts or wounds and produce a substance that affects the nervous system. This disease can cause spasms and even paralysis. The incubation period is about 10 days. Be sure all cuts, scrapes, and puncture wounds are cleaned well with soap and water. Be sure all adults and children in your center are up to date in immunization against tetanus.

**Hepatitis B** -- caused by a highly infectious virus that attacks the liver. Hepatitis B virus is found in the blood and body fluids of persons with hepatitis B. Contact with even small amounts of infected blood can cause infection. You can get hepatitis B by direct contact with the blood or body fluids of an infected person. A baby can get hepatitis B from an infected mother during childbirth. Common symptoms of hepatitis B are: yellowing of skin or eyes, loss of appetite, nausea, vomiting, fever, extreme tiredness, stomach or joint pain, feeling very ill and being unable to work for weeks or even months, or having no symptoms and infecting others without knowing it. The virus can be found in blood and other body fluids several weeks before symptoms appear and generally persist for several months afterward. Approximately 10 percent of infected people may become long-term carriers of the virus and may remain contagious. The symptoms may appear two to six months after exposure, but usually within three months. No cure is available for hepatitis B, so prevention is crucial. Vaccines can provide protection in 90% to 95% of healthy persons. The vaccine can be given safely to infants, children and adults in three doses over a period of 6 months.

**Haemophilus Influenzae (Type B Hib), meningitis (infection of the covering of the brain)** -- in children under five years of age is usually caused by one type of bacteria. Haemophilus Influenzae Type B can also cause pneumonia and infections in other parts of the body, such as the blood, joints, bones and covering of the heart. This infection is



spread by respiratory droplets from infected individuals. Some healthy people carry the bacteria in their nose or throat without becoming ill. Both sick people and carriers may spread the bacteria to other persons who may then become ill. The incubation period is probably less than 10 days. There are three types of Hib vaccine that can be given to children under 12 months of age. A child should get doses at 2 and 4 months, and a booster dose among 12 and 15 months. Depending on which vaccine a doctor or clinic is using, there may also be a dose at 6 months. Children who are late in getting their first dose may follow a different schedule. Your doctor or clinic can give you details. Hib vaccine is usually not recommended for children after their 5th birthday, since not many children over 5 get the disease.

The following is a chart for immunization:

<b>VACCINE</b>	<b>Mos.</b>	<b>Mos.</b>	<b>Mos.</b>	<b>Mos.</b>	<b>Mos.</b>	<b>Yrs.</b>	<b>Yrs.</b>
	<b>2</b>	<b>4</b>	<b>6</b>	<b>12-15</b>	<b>15</b>	<b>4-6</b>	<b>14-16<sup>a</sup></b>
DTP	X	X	X		X <sup>b</sup>	X	
OPV	X	X	X <sup>c</sup>			X	
MMR				X		X <sup>d</sup>	
Hib	X	X	X <sup>e</sup>	X			
Td							X

<b>VACCINE</b>	<b>Birth</b>	<b>1-2 Mos.</b>	<b>4 Mos.</b>	<b>6-18 Mos.</b>
Hep B	X	X		X
	<b>OR</b>	<b>OR</b>	<b>OR</b>	<b>OR</b>
Hep B		X	X	X

- <sup>a</sup> And every 10 years thereafter
- <sup>b</sup> This dose of DTP can be given as early as 12 months, at the same visit as MMR and Hib vaccines, as long as it has been at least 6 months since the previous DTP dose. Some experts recommend this dose at 18 months.
- <sup>c</sup> Some experts recommend this dose between 6 and 18 months.
- <sup>d</sup> Some experts prefer to give this dose of MMR vaccine at entry to middle or junior high school.
- <sup>e</sup> This dose may not be required, depending on which Hib vaccine is used.

## **CDC (Center for Disease Control) Recommendations for the Immunization of Caregivers in Child Care Centers:**

Immunity to the following diseases is recommended for caregivers in child care centers: Diphtheria, Tetanus, Mumps, Measles, Polio, and Rubella. A record indicating immunity to these diseases must show the following:

***Diphtheria and tetanus:*** Documentation of completion of a primary series (3 doses) for tetanus and diphtheria boosters within the past 10 years.

***Mumps:*** Documentation of vaccination with mumps vaccine on or after the 1st birthday, or documentation of physician-diagnosed mumps disease, or laboratory evidence of immunity.

***Measles:*** Born after 1956 (persons born before 1956 are considered immune), documentation of vaccination with live measles vaccine on or after the first birthday, or documentation of physician-diagnosed measles disease, or laboratory evidence of immunity.

***Polio:*** Any caregiver less than 18 years old or still in high school should have documentation of vaccination with a primary series (3 or more doses) of polio vaccine.

***Rubella (this is especially important for women of childbearing age):***

Documentation of vaccination with rubella vaccine on or after the 1st birthday, or laboratory evidence of immunity. (A history of Rubella disease is not adequate evidence of immunity.)

***MMR (measles-mumps-rubella):*** Vaccine should be used if a caregiver is thought to be susceptible to more than one component of measles, mumps, and rubella. There is no evidence of adverse reactions following vaccination of persons who are immune.

***Hepatitis B (serum hepatitis):*** This vaccine is safe, effective, and provides long term protection . A series of these doses is recommended over a period of six months.

## ***CHILD CARE EXCLUSION GUIDELINES***

Certain symptoms in children may suggest the presence of a communicable disease. Children who have the following symptoms should be excluded from the child care setting until 1). a physician has certified the symptoms are not associated with an infectious agent or they are no longer a threat to the health of other children at the center or 2). the symptoms have subsided.

For the mildly ill child, exclusion should be based on whether there are adequate facilities and staff available to meet the needs of both the ill child and other children in the group.

**Fever**--axillary or oral temperature: 100 degrees F. or higher or rectal temperature: 101 degrees F. or higher; especially if accompanied by other symptoms such as vomiting, sore throat, diarrhea, headache and stiff neck or undiagnosed rash.



**Respiratory symptoms**--difficult or rapid breathing or severe coughing: child makes high-pitched croupy or whooping sound after he coughs, or child unable to lie comfortably due to continuous cough.

**Diarrhea**--an increased number of abnormally loose stools in the previous 24 hours. (Observe the child for other symptoms such as fever, abdominal pain, or vomiting.)

**Vomiting**--two or more episodes of vomiting within the previous 24 hours.

**Eye/nose drainage**--thick mucus or pus draining from the eye or nose.

**Sore throat**--especially when fever or swollen glands in the neck are present.

**Skin problems**--rash, skin rashes, undiagnosed or contagious.

**Itching**--persistent itching (or scratching) of body or scalp.

**Appearance/behavior**--child looks or acts differently: unusually tired, pale, lacking appetite, confused, irritable, difficult to awaken.

**Unusual color**--eyes or skin, yellow (jaundice), stool, gray or white, urine, dark, tea colored. These symptoms can be found in hepatitis and should be evaluated by a physician.

**AIDS**--exclude infected child if he/she exhibits biting behavior, is not in control of his/her body fluids, or has open skin sores which cannot be covered. This would need to be done very discreetly -- working with parents, etc. There are confidentiality issues.

**Chicken Pox**--until all the blisters have dried into scabs; about 6 days after rash onset.

**Conjunctivitis--(Pinkeye)**, bacterial, until 24 hours after treatment begins. Viral, until a letter from a physician is provided to verify that the child does not have bacterial Conjunctivitis. In both situations, the child should be well enough to participate in normal daily activities.

**Cytomegalovirus--(CMV)**, no exclusion necessary.

**Diarrhea--(Infectious)**, generally, until stool returns to normal form. Each specific disease situation needs to be evaluated on an individual basis.

**Fifth disease**--no exclusion necessary.

**Giardiasis**--for those with diarrhea only: Until the child has started treatment and diarrhea is no longer present.

**Hand, Foot, Mouth**--until fever is gone and child is well enough to participate in normal daily activities (sores may still be present).

**Hepatitis B**-- no exclusion necessary unless infected child exhibits biting behavior, or has open sores that cannot be covered.

**Impetigo**--until sores are healed or can be covered with bandages, or until child has been treated with antibiotics for at least a full 24 hours.

**Lice--(Head)**, until first treatment is completed and no live lice are seen.

**Measles**--until 4 days after the rash appear.

**Mumps**--until swelling subsides, usually 5 days but may be as long as 9 days after swelling begins.

**Oral Herpes--(Cold Sores)**, no exclusion necessary.

**Pertussis--(Whooping cough)**, until 5 to 7 days after antibiotic treatment begins.

**Pinworm**--until after treatment has been started.

**Respiratory Illness (Febrile)**--until child is without fever for 24 hours and is well enough to participate in normal daily activities.

**Ringworm**--Scalp areas: until 24 hours after treatment begins Body areas: until after treatment begins.

**Roseola**--no exclusion necessary.

**Rubella--(German measles)**, until 5 days after rash appears.

**Scabies**--until 24 hours after treatment begins

**Yeast Infection (Thrush)**--no exclusion necessary, unless there is an unusual number of infants infected.

**Streptococcal Sore Throat; Scarlet Fever**--exclude until 24 hours after treatment begins and child is without a fever for 24 hours.

**Inadequately Immunized Children**--if a case of measles, mumps, rubella, pertussis, polio, or Diphtheria occurs in the child care setting, children who are inadequately or incompletely immunized will be excluded for the communicable period of the disease. This exclusion is necessary because these children may become infected and can contribute to further disease spread.

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## **Resources:**

Nebraska Department of Health Disease Control Division, 1994, P.O. Box 95007  
*What You Can Do to Stop Diseases in Your Child's Day Care Center*, 1984, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, 1994, Atlanta, GA.

*Infectious Diseases in Child Care Settings*, Mar, 93, Third Edition, prepared by the Epidemiology Program of: Hennepin County Community Health Department, Minneapolis, Minn. Editors: Janice R. Godes, MPH, and Jane E. Braun, MS

# ESTABLISHING AND MAINTAINING A HEALTHY LEARNING ENVIRONMENT QUIZ



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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

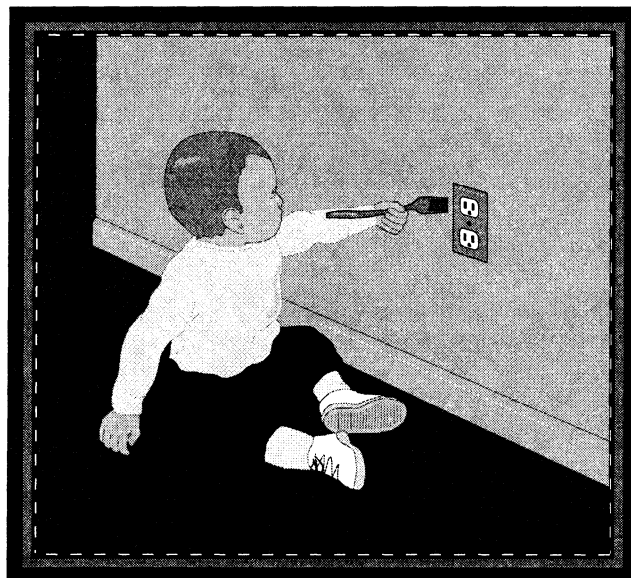
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1. Child caregivers and children enrolled in child care programs should have a physical exam and the results of the exam on file:
  - A. only on entrance into the center
  - B. every other year
  - C. on entrance into the center and then yearly
  - D. whenever a person feels sick and has symptoms of illness
2. Child caregivers are usually fully immunized by the time they are 18 years of age. The only exception would be that diphtheria and tetanus boosters are recommended:
  - A. every year
  - B. every other year
  - C. every five years
  - D. every ten years
3. The Center for Disease Control recommends that child care centers have written policies regarding sick children and exclusion guidelines. These policies should be given to parents/guardians:
  - A. when a child becomes ill at the center
  - B. when a phone inquiry is made regarding the center
  - C. when a child registers at the center
  - D. when asked for
4. A child should be excluded from the child care center if they have an axillary or oral temperature of:
  - A. 96.8 degrees F.
  - B. 97 degrees F
  - C. 100 degrees F or higher
  - D. 98.6 degrees F
5. What type of pest control is allowed when children are present?
  - A. certain types of crack and crevice
  - B. glue boards or sticky traps
  - C. pressurized sprayer
  - D. A and B only

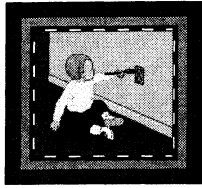
6. What is a food contact surface?
  - A. the inside of a microwave
  - B. high chair tray
  - C. cutting board
  - D. spoon
  - E. all of the above
7. Two most common ways that lead can enter your body is by eating and breathing lead.
  - A. True
  - B. False
8. Lead dust must always be vacuumed.
  - A. True
  - B. False
9. Any type of sanitizer may be used in a food preparation area.
  - A. True.
  - B. False
10. Cloth diapers should be thoroughly rinsed in the toilet before they go home.
  - A. True
  - B. False
11. The number one factor in reducing germs is controlling the environment, such as cleaning and disinfecting the faucet handles, the lid to the diaper pail, and the diaper change area.
  - A. True
  - B. False
12. Chemicals that read "Danger, Warning, Caution" should be stored:
  - A. over the snack cupboard
  - B. next to the paper plates
  - C. locked and away from food or food contact surfaces
  - D. next to the canned goods
13. You can mix any chemicals together safely.
  - A. True
  - B. False
14. Warm water with temperatures ranging from 100 to 120 degrees helps to effectively degrease and clean hands and is considered safe against scalding in child care.
  - A. True
  - B. False

# Section 7

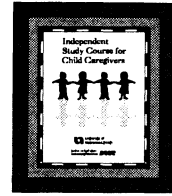
## Establishing and Maintaining a Safe Learning Environment







# Establishing and Maintaining a Safe Learning Environment



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*The objectives of this segment on child care safety are to:*

- ➡ *Become more familiar with your own community and state's regulations regarding the type of child care home or facility you manage or work in.*
  - ➡ *Know where to go for help regarding current regulations, codes, and guidance by professionals working in health or social services, fire safety, zoning and ordinances, etc.*
  - ➡ *Use practical check points to continue to evaluate your home/facility for situations that may lead to unsafe conditions for the children in your care.*
  - ➡ *Make changes in the home/facility structure, contents or arrangements that will lead to preventative safety measures.*
  - ➡ *Develop a short range and long range plan for making changes in existing home/facility and environment to continue to provide a safe, secure environment for children.*
- 
- 

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☐The parents and guardians of the children in your care are counting on you to provide the safety and protection children cannot provide for themselves. Part of the task of the day care provider is to keep children safe so they can explore their world and trust it.

☐Accidents are the leading killers of children, taking 8,000 lives each year. Accidents kill more children than the five leading fatal diseases combined. Not only are accidents the largest single cause of death in children under 15 years of age, but they are also the leading cause of disability, permanent or temporary, in those aged one or older. In the United States, 12 to 14 million children (one in four) under age 15 require medical attention due to accidental injury each year.

## **Know the Rules and Regulations That Apply To Your Child Care Facility**

Regulations vary in states and communities regarding small **family-child-care home**, large **family-child-care home** and **child care centers**. Requirements for fire safety, number of children allowed, space allocation and use, exterior safeguards, etc. may be different for child care centers and child care conducted in homes. To help maintain the safety of children, know the existing local and state regulations and standards. To obtain copies of Nebraska's child care licensing regulations contact:

Child Care Licensing  
Nebraska Department of Social Services  
Resource Development and Support Unit  
(402) 471-3121  
P.O. Box 95026  
Lincoln, NE 68509

Ask your child care resource specialist for a copy of the publications related to the type of facility you have:

**Family Child Care Home I:** A caregiver providing care in their place of residence for compensation for four or more children from different families (4, 8 or 10 children depending on ages).

**Family Child Care Homes II:** A facility in the business of providing care to not more than 12 children (age 12 or younger) from more than one family with two caregivers.

**Child Care Centers:** A facility providing care to children (age 12 or younger) from more than one family on the average of less than 12 hours per day, but more than two hours per week.

**Preschool:** An early childhood program which provides primarily educational services, where children do not nap, and where children are not served a meal.

### **Sources of Information:**

Fire Marshal NE State Office  
246 S 14  
Lincoln, NE 68508  
402-471-2027  
or local delegated fire authorities

Department of Agriculture  
Dairy and Foods  
301 Centennial Mall South  
Lincoln, NE 68009  
402-471-2536

Nebraska Department of Health  
301 Centennial Mall South  
Lincoln, NE 68009  
402-471-2133  
or local delegated health authorities

Local zoning and housing authority,  
local code

Title 3: Americans with Disabilities Act  
U.S. Department of Justice  
Public Access Section  
Office of American Disabilities  
Act Information  
P. O. Box 66738  
Washington, DC 20035-6738  
800-514-0301 (Listen to recording for  
instructions- press 9 for direct contact, 5 for  
print ref.) For direct personal contact call  
(800) 949-4ADA to reach the Columbia MO  
Regional Office

Paralyzed Veterans Educational Center  
Omaha, NE  
402-398-1855  
(This office works closely with ADA)

Businesses fall under the regulations of Title 3, Americans with Disabilities Act. You may have certain responsibilities relating to your facility's accessibility. Obtain a copy of Title 3 Assistance Manual and contact the toll-free numbers for more information about how ADA applies to child care facilities.

### **Activity # 1**

- ☐ Use the checklist on the next page to check your knowledge about existing regulations.
- ☐ If you are unsure of the answers, obtain a copy of the latest licensing regulations and explore the sections dealing with facilities, supplies, and equipment.
- ☐ Use the chart to identify areas and regulations you wish to learn more about.

Do you have a copy of your community and state's regulations for child care facilities?	YES have copy	NO no copy	DO NOT KNOW	Where could you obtain information about the regulations in your community or state? (e.g. For Nebraska, see listing of agencies given for contacts.)
Are there basic requirements or regulations for the following areas?	YES	NO	DO NOT KNOW	If yes, briefly describe standards or regulations.
Number of children allowed in space?	YES	NO	DO NOT KNOW	
Exits and window space requirements?	YES	NO	DO NOT KNOW	
Fire prevention regulations?	YES	NO	DO NOT KNOW	
Food and water regulations?	YES	NO	DO NOT KNOW	
Requirements for furnishings and toys?	YES	NO	DO NOT KNOW	
Restrictions on types of materials that can be used for floors, walls and window coverings?	YES	NO	DO NOT KNOW	
Pool or water restrictions?	YES	NO	DO NOT KNOW	
Emergency drills?	YES	NO	DO NOT KNOW	
Square footage requirements?	YES	NO	DO NOT KNOW	
Animals allowed?	YES	NO	DO NOT KNOW	
Smoking?	YES	NO	DO NOT KNOW	
Weapons?	YES	NO	DO NOT KNOW	
Electrical outlets?	YES	NO	DO NOT KNOW	
Toilet and Sink Facilities?	YES	NO	DO NOT KNOW	
Grounds surrounding facility?	YES	NO	DO NOT KNOW	
Fencing regulations?	YES	NO	DO NOT KNOW	
Sleeping/Napping Arrangements?	YES	NO	DO NOT KNOW	
Americans with Disability Act application to child care facilities?	YES	NO	DO NOT KNOW	
Sanitation?	YES	NO	DO NOT KNOW	

The regulations for child care homes/facilities, however, are minimum standards. In addition to the minimum standards, much can be done in a facility to prevent accidents and to provide a safe comfortable environment for children. The following sections are not regulations, but are suggested preventative actions or evaluation points to consider in the care facility.

Preventing accidents is an ongoing process. An alert provider constantly monitoring the surroundings for safety is one of the most important things to be done. The topics included are not specific regulations, but are based, in part, on the guidelines of the National Health and Safety Performance Standards for Child Care.

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## **Home Day Care Environment Safety Checklist**

### **Part I**

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Medical, safety and health professionals suggest that most childhood injury deaths and disabilities are preventable. Most accidents occur as the result of a child's curiosity and a provider's oversight. By taking simple precautions and following basic safety rules, most "accidental" injuries can be avoided.

Don't tempt children by leaving dangerous objects around to feel, taste or play with. Never leave a child alone in the facility. Keep all nooks and crannies free of hazards. Since children are imitators, they'll do things they see you doing. Teach them the safe way the first time.

## ***Some Common Causes of Accidental Child Injuries and Deaths***

- ☞ Poisoning
- ☞ Choking
- ☞ Burns
- ☞ Drowning
- ☞ Falls
- ☞ Electrocution
- ☞ Motorized Vehicles

## **Falls**

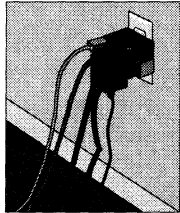
For children ages one to four, falls are a leading cause of accidental death and serious injury. Causes of falls include:

- falls from furniture
- falls from porches
- falls from windows
- falls down stairs
- falls from a standing position into furniture or sharp objects

## **To Prevent Falls**

Because infants differ in temperament and activity, never leave babies unattended on anything from which they might fall. Turning your back, even for a moment, to get a bottle or diaper can be risky. During the "creeper" stage, the baby's curiosity is developing. Babies quickly learn to pull themselves up, while pulling down everything else.

- ◆ Always leave the sides up on the baby's crib.

- ◆ As soon as a child can sit up, use the harnesses, safety straps and seatbelts provided with highchairs, carriages, strollers or infant seats.
- ◆ Safety gates at all stairways will help prevent a child from falling down stairs, but avoid accordion gates with large openings as a child's neck can be trapped in the openings.
- ◆ Check tables, chairs and shelving to be sure children cannot topple them.
- ◆ Check for hanging cords, plant vines or table coverings that children might tug. Be sure electric cords to lamps and appliances are up and out of the way. 
- ◆ Doors that lead to stairways, driveways and storage areas should be securely fastened. Guards at upstairs windows and hooks high up on doors are helpful in preventing falls.
- ◆ Do not rely on window screens to prevent falls. Screens are made to keep insects out, but are not strong enough to keep children in. Unguarded windows opened only five inches pose a danger to children under 10. Make sure window screens are sturdy and cannot be pushed out, especially in the rooms children occupy. Move chairs and other furniture away from windows to discourage young climbers. Window guards, available at most hardware stores, should not be placed on windows used as fire exits.
- ◆ Make sure stairways are well-lighted, and install non-slip surfaces and handrails. Never use stairs for storage, and do not let children play on stairs.
- ◆ Do not use small rugs that skid.
- ◆ Keep steps and sidewalks free of ice and snow.

- ◆ Teach children where climbing is appropriate. Shelves and counters are not for climbing. Make certain that climbing play equipment is sturdy and low and used only with adult supervision. The area under climbing equipment should be cushioned with a resilient surface, such as grass, bark or mats, rather than concrete.
- ◆ Teach children not to run in the facility. Have them pick up their toys to avoid clutter and dangerous obstacles.

## Fire Prevention

**Check with state regulatory agencies such as the State Fire Marshal's office or local officials about fire prevention regulations and recommendations for safety.**




- ◆ If danger from fire is imminent, the caregiver's first responsibility is the children's safety. Get the children out of the facility.
- ◆ Establish a fire-escape plan and practice an escape drill monthly.
- ◆ Teach children to "Stop, Drop, and Roll", in case of clothing fires.
- ◆ Install UL listed smoke detectors/alarms and keep them operational.
- ◆ Keep a 2.5-pound "ABC" dry chemical fire extinguisher in good working order and learn to operate it. Check with regulatory agencies or fire departments about your specific facility and where to place extinguishers in your facility. If you have fire extinguishers, know how, if, and when to use them.
- ◆ Always have at least one caregiver present who is familiar with the operation of the fire extinguisher.

- ◆ Service fire extinguishers after each use. At least once a year, have extinguishers serviced and inspected.
- ◆ Have at least two unblocked exits to the outside of the facility from each level. Two unblocked exits from each room are safer and may be required. Check with your state and local regulatory agencies about existing regulations related to your particular facility.
- ◆ Make sure the facility's electrical wiring system is in good repair, including fuses or circuit breakers.
- ◆ Consider a sprinkler system for increased fire protection. Check with state and local regulatory agencies about the requirements for your specific type of care facility.
- ◆ Cords for electrical appliances and lighting fixtures should be in good working condition.
- ◆ Extension cords should not be overloaded or used as permanent wiring. Do not run them under rugs or hook them over nails.
- ◆ Have a qualified technician inspect the central heating units as often as the manufacturer recommends.
- ◆ Vent space heaters properly to the outside.
- ◆ Lighters and matches should be kept where children cannot reach them.
- ◆ Store flammable liquids in safety cans and where children cannot have access to them.
- ◆ The facility and yards, particularly attics, basements, garages and storage sheds should be kept free of rubbish.
- ◆ Keep rags, paper and other flammable materials away from heat sources.

## Sanitation

**Check local and state regulations, as regulations may vary.**

- ◆ Keep the facility and grounds clean, free of litter, standing water and rubbish. 
- ◆ If you have pets, keep them clean. Make sure pets have all vaccinations, including distemper and rabies. Empty kitty litter boxes daily. Some pets can transmit some illnesses to children.
- ◆ Perishable food should be refrigerated or safely stored in other ways.
- ◆ Use either a public water supply or a private well approved by health authorities.
- ◆ Keep plumbing in good working condition.
- ◆ Keep bathrooms clean.
- ◆ Soap and toilet paper should be available at all times.
- ◆ Each child should have a clean towel for individual use, or paper towels must be available.
- ◆ Garbage should be removed at least once a week.
- ◆ Garbage should be kept away from the care area in metal or plastic containers with tight-fitting lids.
- ◆ Keep the facility free of insects, mice and rats - but do it safely.
- ◆ Provide adequate ventilation to maintain air quality.
- ◆ Windows and outside doors that are kept open should be screened.

# Structure and Materials

The materials and the structure of the facility impact the safety. Examine the composition of the materials used on walls, paint types, etc. Some specific materials and items to check for include the following.

## Indoor Air Quality

When people are enclosed in a confined space, the air quality can be impacted. At particular risk are newborn infants, young children, older adults and people suffering from chronic respiratory problems and allergies.

The air within homes and facilities can be more seriously polluted than the outdoor air, even in large, industrialized cities. People spend up to 90 percent of their time indoors. Solving air quality problems involves:

- (1) Identifying possible air quality problems in the home or facility.
- (2) Eliminating as many possible causes of air pollution that you can, and
- (3) Making sure that your home/facility has adequate ventilation to exhaust or dilute possible harmful substances.

Indoor pollution sources that release gases or particles into the air are the primary cause of indoor air problems. Indoor air pollutants include gases such as carbon monoxide, radon, nitrogen dioxide, organic gases, formaldehyde, and pesticides; and particle matter such as lead, asbestos and biological pollutants.

Inadequate ventilation can increase indoor pollutant levels by not bringing in enough

outdoor air to dilute emissions from indoor sources and by not carrying indoor air pollutants out of the home. Insure adequate air ventilation and exhaust. Open windows when possible to increase ventilation while maintaining the air temperature needed.

There are some simple steps to take to address the possible indoor air pollutants.

Increasing the ventilation or the number of air exchanges (turnovers) may be needed. Mechanical ventilation systems should be checked to determine if adequate air is drawn in and circulated. If they are poorly designed, operated or maintained, however, ventilation systems may not function adequately. For more information on indoor air quality, contact EPA 1-800-438-4318.

**Lead** affects most systems within the body.



Lower lead levels can affect the central nervous system, kidney and blood cells and impair mental and physical development.

Children are most likely to get sick because their bodies take in lead more easily.

Lead can get into children's bodies through lead in food or water, lead in dirt that gets from hands or feet to their mouth, through lead in dust that they breath, and through lead dust on toys and other items that are put in their mouths.

Lead-based paint was manufactured up until 1978 and surfaces painted before that time may have lead paint. Leave lead-based paint undisturbed if it is in good condition. Do not sand, burn off, or remove lead paint yourself. To remove, hire a person with



special training for correcting lead paint problems. Lead paint dust can get into the air and settle on surfaces through frequent open and closing of windows previously painted with lead-based paints.

Tests can be done on your facility/home dust, water, dirt and paint to find out if they have lead. Initial lead screening kits are available. For additional testing, contact a laboratory or persons trained to conduct lead tests. For more information call EPA at 1-800-LEAD-FYI (532-3394).

**Radon** is an invisible, radioactive gas. It is the second leading cause of lung cancer. There are no immediate symptoms.

Test your facility for radon - do it yourself kits are available. Some test kits are short-term and some are long-term tests. Follow the directions to avoid faulty tests. You may want to take multiple tests in the lower levels of your facility. Test kits are becoming more available through hardware stores, etc.

If radon levels of 4 picocuries per liter (pCi/L) or higher result from tests, contact the state radon or health department, or call EPA at 1-800-SOS-RADON (767-7236).

**Asbestos** can be found in floor tiles, exterior siding, pipe wrap and furnace insulation. There are no immediate symptoms, but potential long term risk of chest and abdominal cancers and lung diseases exist.

Identify and inspect any asbestos containing items for damage or deterioration. Do not cut, rip, sand or remove any asbestos-containing materials. If the asbestos containing materials must be

repaired or removed, call a professional asbestos removal service.

**Biological Contaminants** include allergens (mold, mildew, pollen) and infectious disease agents (viruses, bacteria.) They can cause eye, nose, and throat irritation; shortness of breath; dizziness; drowsiness; fever; asthma; digestive problems and other infectious diseases.



Keep areas subject to mildew and mold under control by eliminating the source of the moisture, reducing humidity levels and increasing air circulation.

Items used by the child may harbor dirt and bacteria residue. Make sure surfaces and items used (toys, cycles, chairs, tables, sleeping surfaces, etc.) are clean (and disinfected as needed with an appropriate and safe disinfectant).

### **Combustion Pollutants**

**Carbon Monoxide (CO)** at low concentrations, results in fatigue in healthy people and chest pain in people with heart disease. At higher levels, impaired vision and coordination; headaches; dizziness; confusion; nausea; flu-like symptoms that clear up after leaving the facility; and death may occur.

Have heating and cooling systems inspected and serviced regularly including frequently changing the filter. Avoid using unvented gas and kerosene space heaters.

Consider purchasing and installing a UL approved CO detector. Determine location(s) needed for Carbon Monoxide detectors. Test them regularly as indicated on the label.

**Environmental Tobacco Smoke** can cause eye, nose, and throat irritation; headaches; lung cancer; and may contribute to heart disease. Specifically for children, increased risk of lower respiratory tract infections (bronchitis, pneumonia) and ear infections; increased severity and frequency of asthma episodes; and decreased lung function are possible.

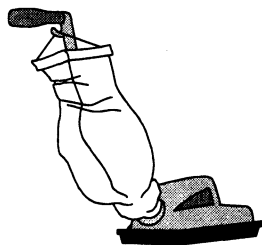


Second hand smoke can be a problem for the children in your care. Regulations state that smoking is not allowed in the presence of children in all child care facilities.

## Daily Facility Check

Before the children arrive each day, take a quick walk around the home/facility and yard to make sure you have a safe environment for children.

- ◆ Vacuum or sweep the floors to make sure there are no buttons, pennies, paper clips or similar small items lying around.



- ◆ Put away the materials that you may have used the night before.
- ◆ Put away cleaning fluids, bug spray, cosmetics and other poisonous products that someone may have used.
- ◆ Turn pot handles to the back of the stove, and put the hot coffeepot out of reach.



- ◆ Check the outdoor area for limbs, dirty papers or other things that might have blown in overnight. Clean up any animal feces.
- ◆ Put up the gate to the stairs, and latch any doors that you don't want children going through - but don't latch fire escape routes.



## Part II: Room by Room Safety

**Check List ACTIVITY # 2:** Use the checklist and the listing in part two as you move through your own facility. Identify any areas and items to be improved.

Areas or Items	Improvements needed
<p>Falls:</p> <p>Fire Prevention:</p> <p>Sanitation:</p> <p>Structure and Materials:</p> <p>Indoor Air Quality:</p> <p>Food Prep Area:</p> <p>Eating Area:</p> <p>Bathroom(s):</p> <p>Living/Play Area:</p> <p>Sleeping Area:</p> <p>Toys and Learning Materials:</p> <p>Outdoor Play Area:</p> <p>Car Safety:</p> <p>Other:</p>	

The following room-by-room safety checklist can be used along with the activity sheet to evaluate the safety of your day-care home or facility. Using the checklist, go through each of the following areas that apply to your facility.

## **Kitchen/Food Preparation and Dining Area**

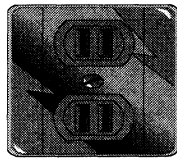
- ◆ Look through all cabinets within children's reach and remove any breakable dishes and sharp items. Place a child-proof lock on child-height cabinets containing all items that are potentially dangerous.
- ◆ Remove all dishwashing soap, cleansing powder, drain cleaner, laundry detergent, bleach, paint, turpentine, bug spray and similar products from under the sink and store them out of children's reach in a locked cabinet or a cabinet with safety locks.
- ◆ Check cleaning product containers for original or proper labeling.
- ◆ Store cleaning products so they do not contaminate any food source or play area.
- ◆ Lock the door to the water heater and any kitchen closets containing dangerous supplies.
- ◆ Place knives, meat-turning forks and other sharp utensils in top cabinets.
- ◆ Eliminate the risk of children scalding themselves by setting the water heater temperature at 100<sup>0</sup>-120<sup>0</sup> F. (Laundering, cleaning, and dishwashing may require higher water temperatures). Use scald-prevention devices. Scald-free faucets eliminate change in water pressure preventing fluctuations in the hot and/or cold water.

- ◆ Unplug toasters, coffee makers and other electrical equipment when not in use and store these appliances out of children's reach.
- ◆ Cover electric outlets or install safety plugs to keep children from trying to stick things into them.
- ◆ Keep matches out of sight and reach at all times.
- ◆ Keep hard-surface floors from getting slippery. Wipe up spills promptly and use "non-slip" wax.
- ◆ Make sure chairs and high chairs are sturdy and not easily turned over. Place toddlers in high chairs with safety straps or harness.
- ◆ Install a smoke detector close to the kitchen (but not so close that it will go off every time you cook). Check the batteries every month.
- ◆ Keep a fire extinguisher in the kitchen (such as a 2.5 pound "ABC" chemical type) and learn how, if and when to operate it. Have it checked and serviced once a year and after each use.
- ◆ Keep trash containers covered and out of reach of children.
- ◆ Keep handles of pots and pans on the stove turned toward the back of the stove.
- ◆ Make sure adults and children wash their hands while preparing food, before and after meals, and after toileting or diapering.
- ◆ Inspect and remove eating utensils with chips or cracks.



## Bathrooms

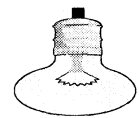
- ◆ Medicines must be locked in a secure place. Razors and glass bottles must be kept well out of reach of climbing, curious children.
- ◆ Check under the sink and remove cleanser, shampoo, lotion, toilet bowl cleaner, alcohol and similar products. Put a childproof lock on the cabinet door.
- ◆ Remove or adjust the door lock so children can't lock themselves in the bathroom.
- ◆ Adjust the water heater (100°F to 120°F) to keep children from scalding themselves while washing their hands; or use scald-prevention devices.
- ◆ Check wastebaskets for hazards. Empty old medicines safely and rinse containers before disposing.
- ◆ Unplug appliances, such as shavers and hair dryers, when not in use and place out of children's reach.
- ◆ Place the diapering area next to a source of running hot and cold water. Use a container, with a tight-fitting lid, for soiled diapers.



## Living Room or Indoor Play Area

- ◆ Remove furniture that has sharp corners or turns over easily.
- ◆ Push the TV set against the wall so children can't get to the cord or the back of the set.
- ◆ Move cords from lamps, radios and other electrical appliances so they do not lie where people walk or children can reach.

- ◆ Remove all extension cords used as permanent wiring.
- ◆ Install safety gates across stairs. (Use sturdy, straight-edge gates. Children can get their necks caught in the expandable type with V-shaped openings at the top.)
- ◆ Keep stairways free of toys or other objects. Avoid using scatter rugs at landings. Make sure railings are strong.
- ◆ Place a high latch on doors leading to rooms you don't want children to use, but don't block fire exits.
- ◆ If you have a fireplace or woodstove, use a protective screen to prevent children from getting too close. Do not use portable electric or unvented fuel-fired heating systems.
- ◆ If radiators and heater vents are too hot, install a protective shield.
- ◆ Light all child areas well.
- ◆ Mount electric fans where children cannot reach them. Inspect the protective fan-blade enclosure to be sure children cannot reach the blades.
- ◆ Check for peeling paint - especially in facilities built prior to 1978. Consult the health department if you suspect the peeling paint is lead-based. (See lead section.)
- ◆ Remove scatter rugs to prevent falls, or use non-skid types.
- ◆ Repair wooden floors and exposed nails or loose threads in carpet.
- ◆ Place lamps, knick-knacks and other breakables out of children's reach. Check for tablecloths that can be pulled off and house plants that can be overturned.
- ◆ Tobacco products and smoking equipment should not be present in children's environment. Tobacco is

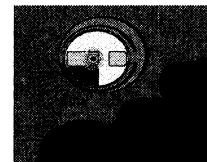


- ♦ toxic when eaten by toddlers, i.e. butts from ashtrays. Research shows second-hand smoke may increase childhood respiratory illnesses.
- ♦ Mark glass doors and low windows with posters, colored tape or decals to prevent children from running into them.

## Bedroom or Sleeping Area

- ♦ Use cribs or beds with secure sides to keep infants and toddlers from rolling out onto the floor. Make sure a child in the crib cannot reach or easily release the side lock, and that all edges and bolts are smooth.
- ♦ Measure crib slats. If there is more than 2 3/8 inches between slats, a baby's head can become wedged between them.
- ♦ Make sure crib mattresses fit snugly and bumper pads are tied securely so baby's head cannot get caught between them and the crib frame.
- ♦ Remove soft pillows, floppy toys or loose-fitting plastic sheeting from cribs and playpens to prevent suffocation.
- ♦ Place cribs away from windows unless the windows have guards or sturdy screens.
- ♦ Tie up cords of window blinds so children won't wrap them around their necks and get strangled.
- ♦ Each child should have a separate cover and nap area.
- ♦ Waterproof beds with fitted plastic sheets, rubber sheets, or crib pads. Do not use plastic cleaning bags.
- ♦ Cribs should meet Consumer Products Safety Standards.

- ♦ Old cribs should be checked for lead based paints.
- ♦ Install smoke detectors near the children's sleeping areas. Do a monthly safety check. Ask about local fire codes.



## Toys and Learning Materials

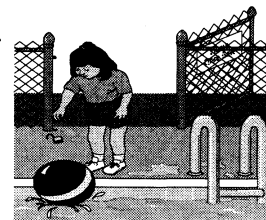
- ♦ Choose toys that are easy to wash and keep clean. Wash infant and toddler toys daily. Try to give each infant and toddler separate crib toys that won't be used by another child the same day. Keep a bin handy to put soiled toys in for cleaning.
- ♦ Choose fabric toys labeled flame-retardant or nonflammable.
- ♦ Check stuffed toys to be sure eyes and other parts are securely attached. Squeakers should be secured in place, and stuffed toys should be washed regularly.
- ♦ Remove any toys with sharp points or rough edges. Remember, some plastic toys become brittle with age.
- ♦ Make sure toys are sturdy, and avoid those that may splinter or break with normal use.
- ♦ Infant and toddler toys must be too large to be swallowed. Toys and objects with a diameter of less than 1 1/4 inch, and objects with removable parts that have a diameter of less than 1 1/4 inch are not safe.
- ♦ Plastic bags and styrofoam objects must not be accessible to children who are still placing objects in their mouths.

- ◆ Read the labels on crayons, paints, clay and other materials to be sure they are not poisonous if ingested.
- ◆ Keep shooting items, such as BB guns or darts, or anything that may explode, away from children.
- ◆ Avoid toys with electrical parts, unless children are school-age and know how to handle them safely. Check toys with batteries to be sure they have tight lids on battery compartments. Use only UL listed or other approved devices.
- ◆ Store toys and learning materials on low shelves where children can reach them. Place heavy toys near the floor.
- ◆ Keep toys used by older children out of reach of younger children.

## Outdoor Play Area

- ◆ Have a fenced area outdoors where children can play daily. Check the fence regularly for wires that stick out or loose nails. If you have no fence, walk the children around the boundary, show them where they are allowed to play, and strictly enforce the boundary. Check with local and state authorities regarding fencing regulations for child care homes/facilities.
- ◆ Put away lawn mowers, fertilizers and gardening tools.
- ◆ Enclose air-conditioning units, wells, access to surface water, electrical and mechanical equipment.
- ◆ Remove doors on old refrigerators and freezers. Children like to hide in these and can accidentally suffocate.

- ◆ Remove poisonous plants such as oleander, azaleas and castor beans, dieffenbachia, philodendron, caladium, and some ivies. Contact a horticulturist or poison control center for more information.
- ◆ Shift car gears to park and set the emergency brake. Close the windows, lock the doors and keep the keys out of children's reach.
- ◆ Make sure the yard is free of rusty nails, broken glass and similar objects.
- ◆ Fill in holes that children can fall in and twist their ankles.
- ◆ Get rid of stinging ant hills and wasp nests, and drain puddles that can serve as a breeding ground for mosquitoes.
- ◆ Firmly anchor all swings and other play equipment to the ground unless it is designed to be portable. The best equipment is simple and adaptable to many uses.
- ◆ Keep the sand box covered at night to keep out dogs and cats.
- ◆ Check porches, railings and steps for splinters, loose nails or slippery surfaces.
- ◆ Mark glass doors with decals or tape at children's eye level.
- ◆ If your facility is near a wading pool, swimming pool, creek, pond or other body of water, make sure children cannot wander off to it by themselves. Enclose swimming pools with a fence at least 4-6 feet high and always lock gates. Check local and state regulations.
- ◆ Use a wading pool no more than one foot deep. Always watch children



when they are using a wading pool because they can drown in very little water.

- ◆ Drain and clean a wading or splashing pool after each use. Store the pool where children cannot reach it.
- ◆ Check tricycles for sharp edges and missing pieces. Tricycles with seats close to the ground are generally safer.
- ◆ Keep grass or sand beneath swings and slides. Check swings and slides to make sure they have smooth edges, are anchored firmly and have no broken or missing parts.
- ◆ Check all play equipment weekly for loose bolts and screws.

## Car Safety

- ◆ Consult your highway safety office for state regulations. The number one killer of children, one to five years of age, is auto accidents.
- ◆ Use federally approved child safety seats for all infants and children. Check the state's seat belt laws and any local regulations. Children under age 4 or weighing less than 40 lbs. must be secured in a federally approved child safety seat. All children age 4 and above or weighing 40 or more pounds must be secured in a safety belt. Follow the manufacturer's recommendation for use of specific car safety seats.
- ◆ Use toddler seats until children are ready for regular safety restraints. If



adjustable, adjust shoulder strap to fit the older child.

- ◆ Seek written approval from parents or guardians to transport their children in your care.
- ◆ Never leave children alone in a car.

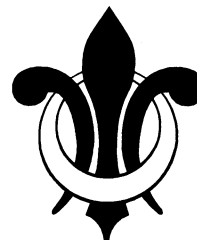
## Other

- ◆ Have a transistor radio and flashlight (and fresh batteries) on hand in case of a storm or power failure.
- ◆ Have operable telephone on site.
- ◆ Post emergency and parents' and guardians' numbers near the phone.
- ◆ File emergency medical information on each child in your care. Make arrangements for emergency transportation if needed.
- ◆ Establish a safety policy with parents or guardians of children in your care.



## Children's Furnishings Safety Part III

Caretakers need to be aware of potential hazards in a child's environment. Often, these hazards involve misused or poorly designed products. A child's environment should allow for exploration, experiences and learning, but it must be safe too.





**Table 1.** The number of children in the U.S. needing hospital emergency treatment in 1984 because of accidents with furnishings.

<b>Furniture or Equipment</b>	<b>Number Of Children</b>
Walkers/jumpers	15,700
Strollers	11,000
Crib extender rails	4,100
Play pens	3,900
Changing tables	1,500
Gates and barriers	1,200
Carriages	1,100
Mattresses/pads	300

Each year many accidents involve children and nursery furniture and equipment (Table 1). The Consumer Product Safety Commission (CPSC) lists walkers or jumpers as the nursery equipment most often involved in accidents and incidents continue to increase. In 1993, 25,000 children ages 5 to 15 months were treated in hospital emergency rooms with injuries suffered in accidents involving baby walkers. (American Academy of Pediatrics.)

The National Safety Council reports the majority of these accidents are directly related to a lack of supervision and/or misuse of a product. The council blames unsafe features of older furniture that does not meet federal safety standards set in 1974, as part of the problem.

## **The Safe Nursery**

For further information on safety alerts involving equipment, or to report a product

hazard, write or call: Consumer Product Safety Commission, Washington, DC 20207; 1-800-638-CPSC.

✓ The following checklist can be used as a guideline in evaluating potential purchases or existing furnishings for children. Not all the things you need to consider are included in the evaluation checklist, use judgment to consider other safety factors as well.

## **Bassinets and Cradles**

- ☐ Sturdy bottom and wide stable base.
- ☐ Screws and bolts are secure. (Check regularly.)
- ☐ Locks on legs to prevent accidentally folding.
- ☐ Mattresses fit snugly, with no gaps, against the sides.

## **Bunk Beds**

- ☐ Mattresses and foundation are sturdy to avoid collapse.
- ☐ There are no areas where children could be trapped or strangled between guardrail and mattress, or bed and wall.
- ☐ Children are not in danger of falling from top bunk.

## **Changing Tables**

- ☐ Drawers or shelves are accessible without leaving the baby unattended.

- ☐ Safety straps are in good shape and will prevent baby from falling.

## **Cribs**

- ☐ Slats are spaced no more than 2 3/8 inches apart.
- ☐ No slats are missing or cracked.
- ☐ Mattress fits snugly. Less than two fingers width is between edge of mattress and crib side.
- ☐ Mattress support attaches securely to the head and footboards.
- ☐ Corner posts are no higher than 1/16-inch to prevent entanglement of clothing or cords around the neck.
- ☐ Infants cannot release the drop-side latches.
- ☐ Drop-side latches hold sides securely in raised position.
- ☐ All screws or bolts that secure crib components are present and tight. (Check regularly.)
- ☐ Bed is placed away from drapery cords and curtains.
- ☐ Only children who are shorter than 35 inches use the crib. (Some children who are less than 35 inches tall may be able to climb out of the crib.)
- ☐ Suspended crib gyms or toys attached or suspended do not pose strangulation or choking hazard.
- ☐ Cribs should meet Consumer Products Safety Standards.
- ☐ Old cribs should be checked for lead based paints.

## **Gates and Enclosures**

- ☐ Openings in gate are too small to entrap a child's head. (Do not use accordion-style gates or gates that have an expandable enclosure with large V's along the top edge or internal diamond-shaped openings.)
- ☐ Pressure bar or other fastener is sturdy enough so children cannot fall or push through the gate.

## **High Chairs**

- ☐ High chair has waist and crotch straps that are independent of the tray.
- ☐ Tray locks securely.
- ☐ Buckle on harness strap is easy to fasten.
- ☐ Base is wide for stability.
- ☐ Caps or plugs on tubing are secure to prevent children from pulling them off and choking themselves.
- ☐ Locking device is effective to keep the chair from collapsing, if it is the folding type.
- ☐ Chair sits away from table, counter or other surface so that a child cannot push off of it.

## Hook-On Chairs

- ☐ Chair has a restraint system to secure the child.
- ☐ Chair has a clamp that locks onto the table for added security.
- ☐ Caps or plugs on tubing are secure to prevent children from pulling them off and choking themselves.
- ☐ Hook-on chair is not placed where the child can push off with feet.

## Infant Carriers

- ☐ Base is wide and sturdy and does not skid easily.
- ☐ Safety belts/harnesses are strong and adequate.
- ☐ Support devices on back are secure.
- ☐ Infant carrier is **not** used for car seat unless specifically designed for use as child safety car seat.

## Playpens

- ☐ Side is never left in down position on a drop-side mesh playpen or mesh crib. (See product's warning label.)
- ☐ Playpen mesh has small weave (less than 1/4 inch openings).
- ☐ Mesh has no tears, holes or loose threads.
- ☐ Mesh attaches securely to top rail and floorplate.
- ☐ Top rail cover has no tears or holes.
- ☐ Wooden playpen slats are spaced no more than 2 3/8 inches apart.
- ☐ Staples are firmly installed and none are missing or loose.
- ☐ Strangulation or choking hazards are not present.

- ☐ Locking devices are effective to prevent accidental folding.
- ☐ Only a few toys are placed in playpen at a time to keep children from climbing on them and falling out.

## Strollers

- ☐ Stroller has a wide base to prevent tipping, and does not tip easily in any seat position.
- ☐ Seat belt and crotch strap are securely attached to frame.
- ☐ Seat belt buckle is easy to fasten and unfasten.
- ☐ Brakes lock the wheel(s) securely.
- ☐ Basket, if present, is low on the back and located directly over or in front of rear wheels.

## Walkers

- ☐ Walkers are now banned by Consumer Product Safety Commission as a result of the number of injuries reported.

## Activity #3

### The safe nursery

To receive safety alerts about furnishings or equipment or to report product hazards, write or call:

Consumer Product Safety Commission  
(CPSC)  
Washington, DC 20207  
1-800-638-2772

## Part IV: Safety in Art, Craft and Creative Play

Art, craft and creative projects allow children to express their creativity and gain skills. If you offer arts and crafts, it's important to have safe products and tools for the children to use. Some art and crafts products can be harmful to children and the environment if used incorrectly.

Some art and craft products contain *solvents* or materials that may expose children to *toxic* ingredients, *fumes*, *dusts* or other dangers. Labels may not have enough information about ingredients or precautions.

**Note:** When you see words that are new to you, a word finder (glossary) is located near the end of this chapter.

### To protect children and the providers...

- ✓ **Prevent Exposure**
- ✓ **Read Product Labels**
- ✓ **Substitute Less Hazardous Products**
- ✓ **Store and Dispose of Products Carefully**
- ✓ **Select and Use Appropriate Tools**

### Exposure

Beware of exposing children and yourself to toxic and harmful chemicals found in some art, craft and woodworking materials.

### Exposure may occur...

- ◆ **Through or on the skin or eyes --** Exposure may result in skin problems. Skin is a protective organ. Strong *acids* and *alkalies*, organic solvents, *bleaches* and other chemicals may penetrate or injure the skin or the eyes.
- ◆ **Through breathing --** You can inhale fumes, dusts, and spray mists. These materials may damage the lining of your airways and lungs.
- ◆ **Through the mouth --** *Ingestion* of dangerous materials may occur when you eat, drink, or prepare food with *contaminated* hands or while wearing contaminated clothing. It also occurs when you use contaminated containers or utensils for serving or storing food. Do not allow children to eat or drink in the craft and art work area.

### DANGER! WARNING! - Signal Words To Look For



Manufacturers often provide label warnings about hazardous characteristics of their products. Look for these key words on labels to identify potentially hazardous products: Toxic, Poison, Poisonous, Hazardous, Volatile, Caustic, Corrosive, Explosive, Reactive, Flammable, Combustible, Inflammable, Danger, Warning, and Caution.

## Arts and Crafts Product Labels

Always read the label on any art product, material or tool. Follow carefully the directions and precautions listed. The Center for Occupational Hazards recommends that youth under age 12 should not use toxic art products. The center suggests checking the labels on art materials, and using only those that say "safe for children's use."

If the product label does not have enough information for you to decide whether it is safe, talk to the salesperson, a professional or contact the manufacturer. Look for the company's phone number, toll free number or address on the label.

Ask the salesperson, retailer or manufacturer about the product. Ask whether it's safe for children to use and how to safely use and dispose of the product. If you want detailed information, request a copy of the Material Safety Data Sheet (MSDS) from the sales person, retailer or manufacturer. The MSDS gives more specific information than the label about flammability, toxicity, ingredients, and use.

## Look, Read and Check It Out

When reading the product label, you may see the following words or phrases. What do they mean? They tell you about the product safety.

- ◆ Certified Product (CP) or Approved Product (AP)
- ◆ Nontoxic
- ◆ Meets American Society for Testing and Materials (ASTM) regulations for chronic long-term health hazards

The following example is an art product label that confirms with ASTM D-4236-88.

**WARNING! HARMFUL IF SWALLOWED,  
MAY PRODUCE BIRTH DEFECTS.**

**Contains lead.**

**When using, do not eat, drink, or smoke.**

**Wash hands immediately after use.**

**Should not be used by pregnant women.**

**Keep out of reach of children.**

**Conforms to ASTM D-4236-88**

**(Name, address, and telephone number of  
manufacturer or importer.)**

## Certified Product or Approved Product

The Certified Product (CP) or Approved Product (AP) seal identifies some art materials as "safe for children's use." The seals mean that an authority on toxicology from the Art and Craft Materials Institute has evaluated the product, and has approved its use by young children. A CP or AP seal means there should be no materials in the art product in enough quantity to be toxic or to injure the body even if eaten. Of course, art products should never be eaten or tasted.

**Nontoxic** (Artwork - label on product with terms nontoxic)

When a manufacturer advertises a product as *nontoxic*, it means the product has passed the *short-term or acute toxicity* test required by the Federal Hazardous Substance Act. Nothing however, is implied about the product's long-term toxicity. "Nontoxic"

does not apply to the product's possible long-term health hazards or toxicity.

**Meets ASTM Regulations** (Artwork: Meets ASTM regulations for long-term health hazards.)

What about long-term toxicity or health hazards? The newer Labeling of Hazardous Art Materials Act (1990) requires labels on hazardous art materials to tell about the potential for *long-term or chronic* health hazards. Products must meet American Society of Testing and Materials (ASTM) rules.

The law requires labeling of products such as solvents, spray paints, silk screen inks, adhesives, and materials used in creating art.

Although only potentially hazardous art materials must have safety labeling, all art materials should bear a statement indicating if they "conform with D-4236-88 and meet ASTM regulations" (see Example). If they are potentially hazardous, they must have additional safety labeling.

## Prevention

☞ *Equip work areas properly and keep areas clean* -- Work surfaces should be hard and smooth for easy and thorough cleaning. Post emergency phone numbers by the telephone.

☞ *Ventilate* -- For everyone's safety, ventilate the area. Consider using a fan to blow air out one window while fresh air is coming in another window directly across the room; this is called cross ventilation. A fan simply moving air around a room, however, is not a useful method of

ventilation because it allows vapors to move throughout the area. It may be better to work outside. Ask questions before you buy supplies for children's use. Products that are solvent based (turpentine, some rubber cement and aerosols, etc.) require proper exhaust systems and should not be used by children.

☞ *Store materials safely* -- Keep containers tightly closed when not in use. Keep products in their original containers so you and others can read the label or directions. Never store potentially dangerous materials in food containers.

☞ *Protect against exposure* -- Avoid skin contact by having children wear protective clothing and gloves suited to the product. Do not allow food or drinks in the work area because of the risk of contamination. Have children wash their hands carefully after doing projects.

☞ *Use age-appropriate products* -- Do not use adult art, woodworking or craft materials that contain toxic solvents, glues, metals, *acids*, or *alkalis*. Specially colored, or sweet or fruit smelling supplies may encourage young children to eat or drink them - be sure that the products you buy won't encourage young children to taste or eat them.

☞ *Substitute* -- Use the least hazardous art materials. Use water-based materials if possible. Only use solvent materials if proper ventilation is provided and then only the least toxic solvents. There are substitutions that may be safer for use. For example, use water-based products instead of oil-based. You

can clean water-based products with water instead of other solvents. Use water-based adhesives instead of flammable rubber cement. Remember to read the label and look for materials identified as safe for youth or children's use.

Buy supplies in premixed paste or liquid formulations instead of powder forms. This reduces the amount of dust in the air. Avoid using aerosol sprays such as aerosol fixatives, and spray paints because of the fine mists that you and the children can breathe.

### **Examples of Substitution**

- ☞ Use school grade acrylics, liquid tempera or poster paints for artist acrylics and alkyd or oil paints or other solvent-containing paints.
- ☞ Use water-based products for solvent based products.
- ☞ Use white glue or glue sticks or paste for epoxy, instant glues, plastic resin adhesive, rubber cement or spray adhesives.
- ☞ Use water-based marking pens for permanent marking pens.
- ☞ Use vegetable dyes for household, direct or reactive dyes.
- ☞ Use water soluble products in place of solvents such as acetone; benzene; ethyl, isopropyl or methyl alcohol; hexane; methylene chloride; mineral spirits; tetrachloroethane; toluene; trichloroethylene; turpentine; xylene; petroleum distillates; etc.
- ☞ Use talc-free, low silica, pre-mixed clay for clays.

- ☞ Do not use materials containing toxic metals such as arsenic, lead, cadmium, lithium, barium, chrome, nickel, vanadium, manganese, and antimony and zinc chromate.

### **Tools**

Select and use safe tools. Generally, examine the tool for sharp edges or points.



Keep in mind the children's abilities to handle tools. Tools such as scissors, paint brushes, and pencils can cause injury if handled improperly. Teach the skills and procedures needed for safety. Tools, such as electrical equipment, hot glue guns, hammers, and saws should not be used for art projects. Tools that heat glues or solder can burn or start fires.

### **What About Storage and Disposal?**

When not in use, store art, craft and woodworking materials and tools in a safe place. The label may help you decide the safest place to store the product. Follow storage and shelf life instructions. Protect from extreme heat or cold. Wipe the outside of containers and make sure the lid is on tightly before storing. Keep tools and art products out of reach of young children and pets.

The best way to reduce waste art and other product materials is through source reduction and eliminating hazardous and nonhazardous waste before it is created. Substitute art materials that are less toxic for children and the environment. Completely use up art materials if safe to do so. Purchase container sizes that do not leave extra leftovers.

**For more information:**

**The Arts Hazards Information Center, a project of the Center for Occupational Hazards, will answer written and telephone inquiries about arts and crafts materials, hazards and precautions. The information center has several publications. For a publications list, enclose a self-addressed stamped envelope, and write to:**

**Arts Hazards Information  
Center  
5 Beekman Street, Suite 1030  
New York, NY 10038  
212/227-6220**

## **Emergency and Help Information**

Where can you go for help in an emergency to get more information? Think about the resources in your community and state. Search out phone numbers for emergency information.

**Children's Poison Control Center  
(800) 955-9119**

**Doctor** \_\_\_\_\_

**Rescue** \_\_\_\_\_

**Fire** \_\_\_\_\_

**Adult near by** \_\_\_\_\_

**Other** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## **ACTIVITY 4**

### **Look Before You Buy**

Now that you know more about potential product hazards, ask yourself the following questions before making a purchase for your care facility.

- Do I really need this product?
- Have I checked the signal words?
- Is it safe for children to use?
- Does the label indicate AP, CP or non-toxic?
- Is there a safer alternative?
- Does this product require safety equipment?
- Am I buying more than I need?
- Can I safely dispose of the excess?
- Can I safely store this product in my facility?
- Does the product label list the ingredients?

### **What Does the Label Tell You?**

- ☞ Look at the labels on the art and crafts products used with the children. What do the labels tell you about each product? Which products are more suited for and safe for use with children? Which may be hazardous or toxic?
- ☞ Are any of the key words such as danger, caution or warning on the label? Does the label have the new labeling regulations? Does the label give you all the information you need.



Are there indications of non-toxic, safe for children's use, CP or AP on the labels? Can you find manufacturers' phone numbers and addresses if you need added information?

- ☞ Develop a safe area in your center or facility for working on art and craft projects and for safe storage of materials and tools used.

- ☞ Contact a manufacturer that makes a product you use. Talk to their consumer service person and ask about product safety, how to use the product, how to dispose of any leftovers, ventilation needed, etc.

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## YOUR PLANS FOR FUTURE CHANGES IN FACILITIES/EQUIPMENT/PRACTICES

### Working Plans

#### Short-term Plan(s) to correct safety problem (1-2 months)

Problem	Solution	Action Steps	Estimated Costs	Time Schedule

**Long-term Plan(s) to correct safety problem (within year)**

<b>Problem</b>	<b>Solution</b>	<b>Action Steps</b>	<b>Estimated Cost</b>	<b>Time Schedule</b>

## Glossary

If you read a label and see these words, you should understand their meaning. If you do not, seek help in finding out what the words on the label mean or don't use the product.

**Acid:** A chemical substance which has water solutions that are sour, react with and dissolve certain metals to form salts, react with alkalies to form salts. Acids have a pH of less than 7 (neutral). Acetic acid is an example of a weak acid. Nitric, hydrochloric and sulfuric are examples of stronger acids. (Note: Tasting is not recommended to test for an acid or alkali.)

**Acute:** Sudden, sharp or severe but generally short term.

**Alkali:** Any substance, which in water solution is bitter, more or less irritating, caustic to the skin and mucous membranes, or has a pH of more than 7 (neutral). Sodium hydroxide, ammonia, and bleach are examples of alkaline products.

**ASTM:** Abbreviation for American Society for Testing and Materials which sets testing standards.

**Bleach:** An alkaline product that is often used as a cleaning product and to remove stains or to whiten. Bleaching agents can be toxic.

**Caustic:** Generally means any strongly alkaline material which has an irritating or corrosive effect on living tissue.

**Caution:** Usually used to indicate a slight hazard or to gain attention.

**Combustible:** Any substance that will burn; often means any solid that is difficult to ignite and burns slowly or to liquids having a flash point greater than 100 degrees fahrenheit.

**Contaminate:** Any substance accidentally introduced into the environment or into other products.

**Corrosive:** Eats away materials or living tissue through chemical action. A substance that attacks metals, building materials, burns, irritates or attacks tissue such as the eyes or skin and if taken internally, the lungs and stomach.

**Chemical:** Chemical can refer to chemical elements or chemical compounds. In general everything is a chemical.

**Chronic:** Long duration or frequent reoccurrence.

**Danger:** Means either highly toxic or extremely flammable or corrosive.

**Explosive:** A chemical compound that rapidly decomposes as a result of shock, friction or heat resulting in a high pressure-temperature wave that moves very fast.

**Flammable:** Any solid, liquid, vapor or gas that will ignite easily and burn rapidly.

**Flashpoint:** The temperature at which a liquid or solid gives off enough vapor to be able to ignite with air.

**Inflammable:** Flammable - able to burst into flames or be set on fire.

**Ingestion:** Material taken into the body through the digestive tract.

**Long-term toxicity:** Exposure to toxic materials for long duration or repeated exposures.

**Nontoxic:** No official federal regulatory definition - can have many meanings. Usually means that the substance will not cause damage to living tissue or illness.

**pH:** A measure of how acidic or alkaline a liquid solution is. The pH scale ranges from 0 to 14 with 7 as neutral; less than 7 increasing acidity, and numbers greater than 7 increasing alkalinity.

**Poison:** A substance that kills, injures, or hurts an organism; something destructive or harmful, highly toxic.

**Reactive:** A substance that can react with air, water and other substances to cause rapid heating or explosions.

**Short-term toxicity:** Exposures to toxic substances for a short duration or a single brief exposure.

**Solvent:** A substance that can dissolve another substances. Organic solvents are often used in paints varnishes, cleaners. Many solvents are flammable and toxic to varying degrees.

**Toxic:** Can cause poisoning symptoms or death.

**Ventilation:** A system or method of providing fresh air.

**Volatile:** Tendency of a solid or liquid material to move into a vapor state.

**Warning:** Moderately toxic. Typically used on products that are moderately hazardous.

### **Acknowledgments:**

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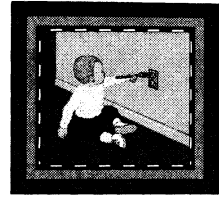
Materials adapted, in part, from original publication "Safety in children's arts and crafts projects" funded Cooperative Extension systems, USDA Agricultural Telecommunications program and Idaho Department of Health and Welfare in cooperation with the University of Idaho and the University of Nebraska, and in cooperation with Michael Vogel, Montana State University, Cooperative Extension.

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# ESTABLISHING AND MAINTAINING A SAFE LEARNING ENVIRONMENT EVALUATION QUIZ

## PART 1: *Knowledge Questions*



---

Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).

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1. Accidents are the leading killers of children.

☒ T. True  
☐ F. False

2. Young children and the elderly may be more seriously affected by air quality problems.

☒ T. True  
☐ F. False

3. Non-toxic means a product is completely safe for children.

☐ T. True  
☒ F. False

4. Child care providers should know about safety and facility regulations that relate to their day care facility/home.

☒ T. True  
☐ F. False

# **ESTABLISHING AND MAINTAINING A SAFE LEARNING ENVIRONMENT EVALUATION QUIZ**

## **PART 2: *ANTICIPATED CHANGES***

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**Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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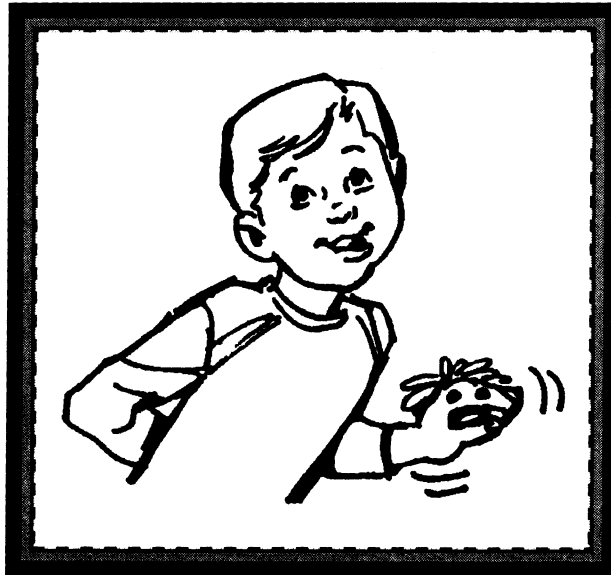
As a result of this segment, do you plan to make any changes in your child care physical facilities for safety purposes?

☒ If yes, make a check mark for the changes you will make?

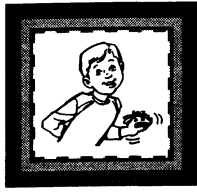
- ☐ Perform a facility safety check
- ☐ Obtain more information on standards and regulations for daycare homes or centers
- ☐ Conduct safety drills
- ☐ Install fire extinguisher
- ☐ Install smoke alarm
- ☐ Fence area
- ☐ Make changes in furniture
- ☐ Make changes in play equipment
- ☐ Make changes in entrance or exits
- ☐ Take steps to decrease injury from falls
- ☐ Change storage/location of poisonous materials
- ☐ Change types of materials used in arts and crafts projects to reduce toxicity and potential safety problems
- ☐ Other steps

# Section 8

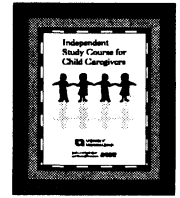
## How Children Ages Three to Five Grow and Learn







# How Children Ages Three to Five Grow and Learn



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*In this lesson you will be introduced to aspects of:*

- ➡ *Factors affecting development.*
  - ➡ *Developmental patterns for children ages three to five.*
  - ➡ *Developmental term.*
  - ➡ *Interrelated development concepts.*
  - ➡ *Individual rate of development.*
- 
- 

- ☐ The material in this lesson is based on research within the area of child development.
- ☐ This study lesson contains information about development patterns for young children ages three to five. Observational activities are intermixed with reading materials.

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- ◇ Child development research establishes age and stage expectations for young children.
- ◇ Children in the three to five year age/stage range have common traits.
- ◇ These traits set the stage for the patterns established through child development research.
- ◇ Here are a few traits of preschool age children:

**Children age three to five tend to:**

- be egocentric
- begin to interact with other children in play situations
- begin to develop friendships
- begin to understand turn taking
- begin to develop a sense of humor based on slap stick, body functions and silly words
- generate a wide variety of large muscle movements
- rapidly increase vocabulary
- recognize shapes
- recognize colors by name
- begin to 'write'
- begin to expand imagination

- ◇ Understanding common characteristics of young children may help to understand behavior and patterns of learning for young children.
- ◇ Young children have psychological needs as well as physical needs.
- ◇ Physical needs include the child's need for food, clothing, housing, and health care.
- ◇ Psychological needs include the child's needs for caring, nurturing, attention, security and trust.

### Activity One:



List ways you as the child's caregiver help to meet the psychological and physical needs of the children within your care.

#### **Psychological:**

#### **Physical:**

When children's psychological and physical needs are not met a child's growth and learning are affected. Having only one set of needs met or needs only partially met also hinders a child's development. Psychological and physical needs are equally important if a child's growth and learning development are to progress at a normal rate.

When children develop normally their bodies grow, their minds develop thinking skills and they begin to develop skills in a wide range of areas. Each child develops both in body growth and learning growth along an individual timetable based on patterns of development. Therefore, children tend to go through stages of development at different rates from siblings as well as other children similar in age.

We will be looking at five areas in which children tend to develop:

- Motor Development
- Cognitive Development
- Social Development
- Creative Development
- Language and Literacy Development

## Section Two: Areas of Development

Motor development can be defined as the child's ability to move and use muscles with control. Motor is many times divided into two types of movement large motor (uses large muscles such as legs or arms) and small motor (uses small muscle such as mouth or fingers). Small motor is also called fine motor skills. Large motor is also called gross motor skills.

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Examples of large motor/muscle include:

hopping

running

jumping

stair climbing alternating feet

walking



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Examples of small motor/muscle include:

cutting

chewing

talking

writing

drawing











eating with utensils or fingers

picking up small items (such as legos, beads, puzzle pieces)



## Activity Two:

For 5 minutes observe 1 or 2 children you care for. List all the ways they use their motor skills.

Large Motor:	Small Motor:
	
	
	
	
	






Cognitive skills can be defined as thinking skills. Cognition is the process of acquiring knowledge. Cognition is many times divided into skills such as problem solving, number, time, seriation, space and classification.

Examples of cognitive skills in young children might include:

- ▶ children rote counting
- ▶ children counting objects
- ▶ use of words like yesterday, tomorrow, now or later
- ▶ two children resolving a conflict by 'talking' it out
- ▶ understanding position terms such as on, in, over, under
- ▶ sorting objects into sets
- ▶ placing objects in an order such as largest to smallest or heaviest to lightest
- ▶ figuring out how objects fit together

### Activity Three:

Observe children involved in play. Observe how they use their cognitive or thinking skills. Write down examples you observe.

Social Emotional Development is a child's growth in understanding of self and others. This area includes the child's evolving self concept. Their growing need for interdependence. Their ability to relate to others.

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Examples of social emotional skills in young children may include:

developing friendships

dealing with conflicts in a constructive manner

making choices

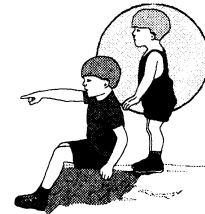
using words to express their own or others feelings

showing empathy for others

ability to regulate feelings

cooperative play involving others

---



## Activity Four:

Observe children, age three to five, who are within your care. Note ways they express their feelings in the following areas. Watch for signs of body language as well as words.

### Anger:



### Fear:



### Happy:



### Excited:



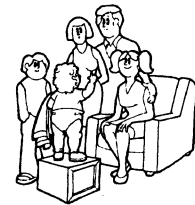


Creative development is a child's ability to process and construct images in a new form. Creativity can be displayed through a child's artistic abilities, verbal abilities and thinking abilities.

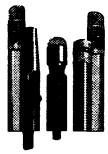
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Examples of creative development in young children include:

- drawing
  - painting
  - storytelling
  - ability to see problems from a different perspective
  - building or modeling materials
  - ability to generate multiple or unusual solutions to situations
- 



### Activity Five:



Give paper and markers or crayons to three different children. Ask each to draw you a picture. Allow them time to complete their drawings. Prior to your commenting on quality of the picture ask each child to tell you about their picture. Write down their words on another sheet of paper or on the back of the drawing. Compare all three drawings and descriptions. Are there differences in detail? aesthetic? use of symbols? These differences may be attributed to the different levels of creative development.

Language and literacy development can be defined as the child's acquisition of speech, language patterns, writing and reading skills. Children's language development can be observed through their speech patterns as well as vocabulary usage and inflection. Language is more than speech, non-verbal also plays a role in how we communicate. Pre-writing include scribbling to imitation of letters and symbols. Pre-reading skills include recognition of symbols and reading picture cues.





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Examples of children developing language and literacy skills include:

- ◆ trying to write their name
- ◆ rapidly growing vocabulary
- ◆ repeating words heard, not always socially appropriate or in correct context
- ◆ listens to stories
- ◆ repeats or memorizes finger plays or songs
- ◆ uses rhyming words
- ◆ creates own silly words
- ◆ reads signs or symbols (McDonald's Arches, stop signs)
- ◆ understands give and take in conversation with others
- ◆ asks questions



---

### Activity Six:

Collect items from several fast food restaurants or other such landmarks within your community. Give children the opportunity to play with these items. Are they reading the symbols? What happens to their language when playing with these items? Do they take on the roles of individuals who work there? Or do the children tell about visiting such a place? Listen to their language.



### Section Three: Interrelated Skills

Though we have presented the five areas of development as separate entities, it is important to note that the development areas are not separate and unique. Look at a children's puzzle, see how the pieces interlock to create a whole picture. Child development is similar to that puzzle. Each skill interlocks into other areas of development. Children not developing in

one area are like a puzzle with missing pieces. The whole picture is not present. It is important for children to have opportunities to develop in all areas (see the chapter, **Selecting Appropriate Activities for Young Children**, in this book).

### Activity Seven:

Read Appendix A in this chapter: *Widely Held Expectations for Children Three to Five* from *Growing in the Heartland*.

Mark each skill according to the following code:

**M-Motor Development**  
**C-Cognitive Development**  
**S-Social Emotional Development**  
**Cr-Creative Development**  
**L-Language and Literacy**

Hint: Remember skills interlock and are interrelated. Skills do not all stand alone.

**Resources:**

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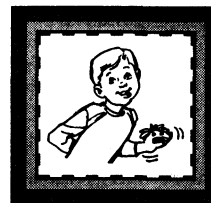
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Many of these materials are available through the Early Childhood Training Center. For additional check-out information call 1-800-89CHILD.

## How Children Ages Three to Five Grow and Learn Quiz



**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

1. All children
  - A. develop at their own rate in accordance with development patterns.
  - B. magically begin to do skills on their birthday.
  - C. do skills at the same rate of development.
2. Motor skills are
  - A. the way children control their muscles.
  - B. walking, running, jumping and throwing balls.
  - C. picking up small items, writing, drawing, and chewing.
  - D. all the above.
3. Another word for cognitive is
  - A. listening skills.
  - B. thinking skills.
  - C. talking skills.
4. Language and literacy skills include
  - A. pre-writing and writing skills.
  - B. speech acquisition.
  - C. reading of symbols and letters.
  - D. all of the above.
5. Creativity is
  - A. only present in gifted children.
  - B. the process of constructing images in a new form.
  - C. only a skill of artistic individuals.
6. Social emotional development includes concepts of
  - A. self concept.
  - B. empathy.
  - C. friendship.
  - D. all of the above.

7. All areas of development
  - A. stand alone and are unique.
  - B. are interrelated.
  - C. affect other areas of development.
  - D. all of the above.
  - E. only B and C.
  
8. Physical needs
  - A. include food, housing, and health care.
  - B. do not affect children's growth and learning.
  - C. affect children's growth and learning.
  - D. both A and C.
  
9. Psychological needs include:
  - A. security and trust.
  - B. affection.
  - C. nurturing.
  - D. all of the above.

## APPENDIX A

### Widely Held Expectations

#### *What Are Widely Held Expectations?*

Widely held expectations are generalizations about children's development and learning over time. They are frames of reference that help parents and teachers focus on the development of the individual child. These are not expectations for all children but are general statements that show common patterns of development over time. They are based on expert knowledge, current research, observation of children, and the collective wisdom and common sense of parents and teachers.

Infants around the end of their first year are generally able to smile, sit up, eat solid foods, vocalize, understand and perhaps say a few words, and be on the way to taking that first step. Of course, these expectations are only generalizations—true for some infants, not for others.

Taken individually, none of these widely held expectations is particularly significant. After all, some infants never crawl before they walk, others don't say a word until one day in their own time and in their own way, they launch their first speech in complete sentences.

Nevertheless, these widely held expectations are useful generalizations, providing telling snapshots or graphic profiles. Taken together, they may say something important, show a pattern, or raise a question about the developing learner.

The widely held expectations in this document are divided between the five goals of the primary program, and in the areas of reading, writing, and mathematics. They have been organized for clarity and easy reference according to a time frame of birth through 13 years. However, when using the widely held expectations, the interest is learner-focused, so we begin where the child is developmentally, no matter what the age.

#### **Widely held expectations . . .**

- ① provide us with the big picture of children's growth and development over time;
- ② form the basis of the concept of continuous learning;
- ③ help parents and teachers focus on the development of individual children;
- ④ help teachers assess individual learners and plan appropriate learning experiences that ensure continuous progress;
- ⑤ serve as a reference for parents for reassurance about their child's on-going development;
- ⑥ can be used for reference by parents in providing developmentally appropriate toys, reading materials, and other opportunities to their children.

As parents and teachers use the widely held expectations, they will begin to develop a picture of a child's progress in relation to the general development of other children of a similar age. When looking at the charts on the following pages, you might want to:

- ◇ Look at all goal areas to gain a balanced view;
- ◇ Look at the age ranges on either side of the child's age to appreciate growth over time;
- ◇ Remember each child is an individual and will shine more brightly in some areas;
- ◇ Use this resource as a starting point and one way of viewing development over time;
- ◇ Consider the experiences that home and school have provided; and
- ◇ Be patient—learning is a lifelong process.

Regardless of whether teachers are thinking in terms of programs, learning goals, planned activities, or curriculum areas (subjects), the child must always be the first consideration.

When considering the developing learner, teachers take into account the child's:

- ♥ sense of security in social settings;
- ♥ family relationships;
- ♥ needs;
- ♥ previous experiences;
- ♥ age;
- ♥ health;
- ♥ interests;
- ♥ feelings;
- ♥ learning rates and styles;
- ♥ abilities; and
- ♥ attitudes, skills, and knowledge.

In planning experiences in the primary program, the teacher thinks about:

- ☞ how children learn best;
- ☞ what learning is appropriate; and
- ☞ when it is best learned.

The primary program is organized around the five goals so teachers can plan experiences that meet the needs of the whole child. In school, when curriculum assessment, and evaluation take these factors into consideration, the program is developmentally appropriate.

For the widely held expectations described on the following pages, the statements and examples of children's development provide only a sample of generally observable behaviors. Parents and teachers will likely think of many other similar examples.

Given that a child has had both home and school opportunities to develop in each goal area, the following widely held expectations may apply to the child's development.

## Widely Held Expectations in Aesthetic and Artistic Development

### *Birth - 3 years*

- may try to grasp writing tool with whole hand.
- may draw randomly and look away while drawing or making marks on paper or board.
- may begin to make scribbles for pleasure of seeing the results of their actions.
- use scribbles, lines, and circles for expression.
- may begin to express pleasure or displeasure (laughing, anxiety) when listening to sounds, voices, and music.
- may begin to move body to sounds and music.
- may make sounds to music without using words ("la, la" or "ba, ba"), may enjoy hearing own sounds.
- may enjoy pretend games.
- may look at, talk to (babble), grasp, bang, or drop toys.

### *3 - 5 years*

- may learn to hold writing tools between fingers and thumbs.
- may make marks, draw, paint, and build spontaneously to express self.
- may begin to name a person, place, thing, or an action in a drawing.
- gradually try making lines and circles repeatedly and with more control.
- may respond to music, art, and nature through body movement that is rhythmic, e.g., rocking, clapping, jumping, or shaking.
- use movements that are generally spontaneous, unrehearsed, and inventive.
- may be relatively uninhibited about singing and playing musical instruments.
- may use both a speaking voice and a singing voice when singing alone, with a tape or others, and may or may not be able to sing a melody in tune.
- often engage in pretend play easily and naturally.
- may talk to and play with pretend friends, television characters, stuffed and other toys.

### *5 - 7 years*

- continue to develop the ability to hold and use large size writing and drawing tools.
- may show first attempts at drawing, painting, and building "things".
- continue to name what has been drawn, painted, or constructed.
- may strive for more detail and realism in artwork.
- gradually include more detail and add more body parts when drawing people.
- continue to expand and refine responses to a variety of sounds, voices, and music.
- may show imaginative and creative ways of moving and dancing.
- are increasingly able to initiate and repeat movement patterns (walk like a lion, slither like a snake).
- may "act out" stories spontaneously.
- often continue to be relatively uninhibited about singing and playing musical instruments.
- are developing a singing voice, but the range will differ; may or may not be able to sing a melody in tune.
- often continue to show lots of imagination and interest in make-believe.
- continue to talk to imaginary friends; may greet an imaginary friend or call someone with a striking sense of reality.

## Widely Held Expectations in Emotional and Social Development

### ***Birth - 3 years***

- may demonstrate visible expressions of emotion (temper tantrums).
- actively show affection for familiar people.
- may show anxiety when separated from familiar people and places.
- are naturally very curious about other children and may watch and imitate others.
- generally play alone; may or may not attempt to interact with others.
- strive toward independence with support and affection (sitting up, crawling, walking, dressing, feeding, toileting).
- begin to see themselves as people and appear self-centered.
- begin to see themselves as strong through directing others: "Sit down."
- may become possessive of belongings (special people, toys, special times).

### ***3 - 5 years***

- may display their emotions easily and appear very sensitive and impulsive (crying fits, "No!").
- begin to feel more comfortable when separated from familiar people, places, and things (visiting a neighbor, nursery school, baby-sitter).
- may play alone or beside others but are becoming more aware of the feelings of others. May be frustrated at attempts to socialize but hold no grudges.
- begin to assert independence by saying "No" or "I can do it myself!" May dump a cupful of water onto the floor while looking directly at you.
- see selves as family members and as boy or girl in the family.
- see themselves as powerful and creative doers. If the child can't reach something, he or she will get a stool.
- may continue to appear possessive.
- may feel if something is shared for a brief period, it is gone forever.

### ***5 - 7 years***

- may continue to show intense emotions (one moment will say, "I love you" and the next "You are mean.")
- may appear anxious once again when separated from familiar people and places (beginning school, sleep overs).
- are learning to cooperate with others for longer periods of time; friendships may change frequently.
- continue to develop feelings of independence by becoming able to do certain things (making a simple breakfast or riding a bicycle).
- may begin to talk about self and to define self in terms of what they have or own.
- may feel they are being treated unfairly if others get something they do not.
- begin to see themselves as bad, good, clever, and may seem very hard on themselves.
- begin to develop the ability to share possessions and take turns.



## Widely Held Expectations in Intellectual Development

### *Birth - 3 years*

- make direct contact with their environment to the best of their ability—doing, seeing, hearing, tasting, touching, and smelling (put objects in mouth).
- are beginning to develop an understanding of language and how it works (imitating sounds, saying words, putting words together).
- are learning to name objects and may use the same word for two or more objects (all vehicles called "cars").
- express themselves through scribbles, lines, and circles.
- "read" pictures for meaning; begin to recognize that writing has meaning (writing is intended for communication).
- are likely to think about time in "here and now".
- are increasingly able to identify familiar faces, toys, places, and activities.
- are developing personal choice (a favorite blanket or toy).
- may be interested in grouping objects (putting all the large animals to bed and leaving the small ones to play).

### *3 - 5 years*

- continue to explore the world around them by objective manipulation and direct experience (playing).
- begin to understand cause and effective ("I fell, I cried, I hurt.")
- begin to use language to name objects and their own direct experiences of them ("stove—hot").
- name objects and may find two objects are alike in some way (cats and dogs are animals).
- are developing a sense of how writing and reading work.
- combine drawing and "writing" — drawing conveys most of meaning.
- play at reading — "read" pictures (telling story from pictures).
- begin to read commercial and traffic signs (STOP).
- continue to develop an understanding that writing conveys a message.
- may think of tomorrow as "after my sleep" and use words like "tomorrow" and "yesterday" though not always correctly.
- may learn nursery rhymes, songs, and addresses, but without really trying to remember.
- begin to assert personal choice in decision-making ("No broccoli!").
- are developing an interest in the number of things.
- are increasingly interested in counting although the number may not match the number of objects.

### *5 - 7 years*

- continue to learn from direction experience (playing).
- expand and refine knowledge with increasing understanding of cause and effect ("I can go to my friend's house if I call home when I get there.")
- continue to expand their understanding and use of language to clarify thinking and learning.
- are continuing to develop a sense of how writing and reading work.
- combine drawing and writing to convey ideas.
- understand that print "tells" the story.
- develop a basic vocabulary of personal words.
- read slowly and deliberately.
- will substitute words that make sense when reading.
- developing an understanding of words like "tomorrow;" may still be unsure about length of time ("Is it ready?" or "Are we there yet?").
- may begin to organize information to remember it (own telephone number, sound-symbol relations).
- continue to assert personal choice in decision-making (what to wear to school).
- begin to understand that the number of objects does not change when grouped in different ways.
- are developing the ability to match counting 1, 2, 3 with the number of objects.

## Widely Held Expectations in Physical Development

### *Birth - 3 years*

- may experience a period of extremely rapid growth.
- develop the ability to move about and to manipulate objects to the best of their ability.
- begin to develop vision by following slowly moving objects with their eyes.
- begin to develop hand-eye coordination—reaching, grasping, objects, feeding, dressing.
- begin to recognize concepts of place and direction—up, down, in.
- begin to move about—sit, stand, crawl, walk, climb stairs, walk backwards—to the best of their ability.
- are beginning to identify their own body parts, often through nursery rhymes and games.
- are unaware of physical strengths and limitations so may attempt activities that could be difficult or dangerous.
- may often change activities.
- will move about at own pace, always near a trusted adult.
- are likely to play alone or beside another.
- begin to play games like peek-a-boo and hide-and-seek.

### *3 - 5 years*

- are experiencing a period of rapid growth.
- have a slower rate of small muscle development (hands) than growth and coordination of large muscles (legs).
- are usually naturally farsighted.
- continue to develop hand-eye coordination and a preference for left or right handedness.
- begin to understand and use concepts of place and direction—up, down, under, beside.
- are developing the ability to climb, balance, run, gallop, jump, push and pull, and take stairs one at a time.
- are beginning to identify body parts and words used in movement—jump, wave, hop.
- seem unaware of their own physical strengths and limitations and may try potentially difficult or dangerous activities.
- may change activities often, although sometimes concentrate on one thing for a long time if interested.
- are beginning to take part in group situations, but still play side-by-side rather than "with" others.

### *5 - 7 years*

- may not experience a slower rate of physical growth. Large muscles (legs and arms) may be more developed than small muscles (hands and feet).
- may increase fine motor skills (handling writing tools, using scissors).
- usually continue to show farsightedness.
- continue to develop hand-eye coordination. A preference for left or right-handedness may still be developing.
- continue to develop an understanding of direction and place although may confuse right and left, up and down when playing games.
- continue to develop climbing, balancing, running, galloping, and jumping abilities. May have trouble skipping.
- are growing in their ability to know what and where their body parts are, and how they can be moved and coordinated.
- continue vigorous activity, tiring easily, recovering quickly.
- tire from sitting rather than running.
- develop an awareness of safety with guidance.
- usually show enthusiasm for most physical activities and are sometimes called noisy or aggressive.
- are developing the ability to take part in small group games, and usually begin to play in groups of children of same sex.

## Widely Held Expectations in Development of Responsibility

### *Birth - 3 years*

- appear insensitive to the views of others, yet show interest in them.
- are generally self-centered in their views.
- look at the world mostly from their own viewpoint (may think the sun sets because they go to bed).
- may cry when they see or hear another child crying.
- physically explore the environment to the best of their abilities using their senses (seeing, hearing, tasting, smelling, and feeling).
- are natural explorers, eager for new experiences.
- are beginning to distinguish between familiar and unfamiliar faces.
- are becoming aware of their own feelings and respond to others' expressions (become upset if caregiver is also upset).
- begin to recognize consequences follow actions.

### *3 - 5 years*

- are becoming aware of others and beginning to take part in social play groups.
- may play "beside" rather than with others.
- are beginning to see that their views differ from those of others but remain self-centered.
- may show aggressive feelings toward others when something does not go their way.
- are beginning to sense when another person is sad, angry, happy.
- become interested in exploring the environment outside the immediate home. May be interested in growing seeds, weather, seasons, the moon, and sun.
- continue to eagerly explore the world around them.
- are becoming more aware of family and social relationships.
- may sense another person's unhappiness (such as another child crying) and not know how to help.
- become aware of consequences of own behavior.

### *5 - 7 years*

- are developing the ability to take part in social groups and for longer periods of time, increasing awareness of others.
- may prefer to play alone at times or with others.
- are developing the ability to see that others have feelings and different views than their own.
- may begin to respond to others in times of distress if they are supported and encouraged to do so.
- are developing an interest in the community and the world outside their own.
- may begin to show an awareness of basic necessities (food, clothing, shelter).
- are beginning to develop an interest in specific issues pertaining to their world (recycling).
- may begin to notice how people are similar and different from one another.
- are developing the ability to respond sympathetically to others if they are hurt, upset or crying.
- begin to understand consequences of own and others' behavior.

## Widely Held Expectations in Reading Development

### *3 - 5 years*

- are curious about print in own environment — names of letters, signs, labels, and logos.
- play at reading: "read pictures" rather than print.
- begin with naming and commenting on the pictures, then telling stories from the pictures.
- "read" print in own familiar environment (restaurant signs, familiar places, traffic signs).
- know that print is a source of information and enjoyment.
- begin to develop a "sense of story."
- focus on the whole story rather than on individual words.
- begin to develop knowledge of some conventions of print, front-to-back directionality of books.
- rely on an adult or older child to read text.
- like books with illustrations, repetition, and rhyme.

### *5 -7 years*

- are curious about print — word forms and spellings.
- role play themselves as readers, relying heavily on memory at first.
- begin to focus on print, but use pictures to predict and confirm meaning.
- attempt to match voice to print.
- are increasingly able to recognize environmental print away from its familiar context.
- begin to develop a basic vocabulary of functional and personal words recognized on sight.
- understand that the print "tells the story."
- continue to develop a "sense of story."
- are increasingly able to deal with the parts of print (letters and words).
- increase awareness of print conventions (top-to-bottom and left-to-right directionality, punctuation).
- develop knowledge of common letter-sound relationships.
- begin to develop an ability to try reading print, including ways to figure out unknown words (common letter sound associations, picture clues).
- choose short books with simple stories and illustrations.
- enjoy reading favorite books.

## Widely Held Expectations in Writing Development

### 3 - 5 years

- view writing as something that people do and like to play at writing; are curious about letters and words.
- combine drawing and writing but drawing conveys most of the meaning.
- may not intend to convey a particular message and may ask "What does this say?" of own writing.
- play at writing and may produce:
  - scribble writing (imitative cursive writing);
  - random symbols (strings of symbols that resemble letters);
  - random letters (strings of letters);
  - single letters that represent a sound (S for "snake") or a syllable (dd for "daddy").
- may produce some conventional words (own name, mom, dad) as well as play writing.

### 5 - 7 years

- are interested in the names of letters and how to represent specific speech sounds; write mainly for personal interest.
- combine drawing and writing to convey ideas.
- demonstrate increasing knowledge of letter names, common letter-sound associations, especially consonants and some forms of writing (labels, stories, letters).
- produce increasingly conventional writing by:
  - writing in capitals and moving toward the use of lower case letters;
  - spelling with consonants and moving toward phonetic spellings that include vowels;
  - spelling some common words conventionally;
  - showing some sense of directionality but may reverse some letters (b and d) or right to left at times;
  - starting to use some punctuation marks (periods).
- may produce:
  - writing usually related to their own experiences;
  - a label or caption to accompany a drawing;
  - single words or phrases;
  - short, simple sentences;
  - a series of simple sentences;
  - simple stories with one or two characters.

## Widely Held Expectations in Mathematics Development

### *Birth - 3 years*

- begin to recognize "one" and "more than one."
- count to nursery rhymes or the alphabet song.
- begin to pick out one thing from a group. Sometimes find two or three that are the "same."
- begin to identify simple qualities of things like soft and hard or "hot" and "cold."
- begin to get some ideas of how things are alike and how they are different.
- may follow the "path" of an object.
- may use simple quantity words such as "one more cookie" or "more milk."

### *3 - 5 years*

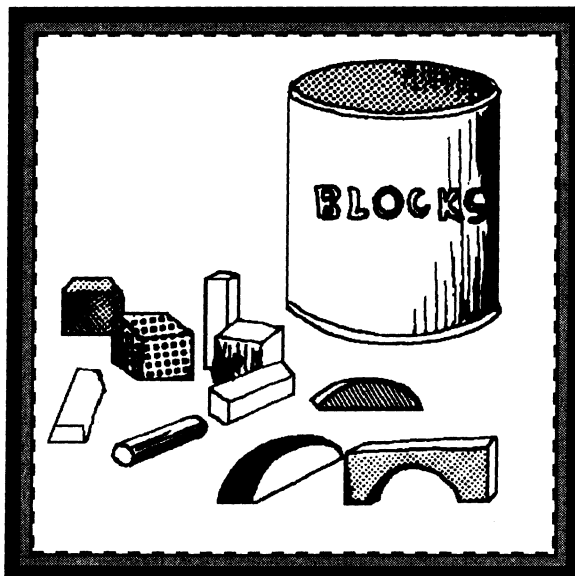
- recognize and count up to five. identify portions when sharing.
- recognize and name simple shapes (squares, circles, triangles).
- match pictures to actual shapes.
- sort using a single attribute.
- recognize simple patterns.
- learn more qualities of objects ("thick" and "thin").
- line up two or three objects using size or some other category.
- use language to begin to get ideas about space and time (next to, on top of, before, after).
- compare objects.
- use measurement words ("big and small," "short and tall," "near and far").
- may recognize that two is always two and three is always three but does not apply this concept beyond five.

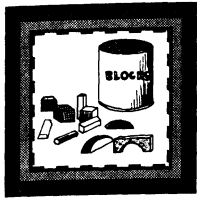
### *5 - 7 years*

- count first by starting back at 1 each time something is added.
- begin to pick up counting where they left off, starting with 7 and counting on to 8 and 9.
- count all types of things; play with counting forward or backward.
- enjoy counting to 10 and idea of big numbers.
- use pattern blocks and other materials to make and extend patterns.
- match objects in one set to objects in a second set.
- sequence things from the biggest to the smallest by size or other variable.
- may insert items into a sequence at the appropriate place.
- enjoy lining up according to size.
- may enjoy card games that help consolidate concepts.
- classify objects in a variety of ways.
- may isolate a set from a collection.
- may realize that a collection can be sorted in more than one way.
- begin to develop a stable idea of a straight line.
- try measuring all sorts of things but with non-standard units.
- begin to recognize that 10 is 10 or 20 is 20, no matter how objects are arranged in a group.
- work with simple number facts showing different sums with many types of materials.

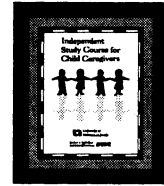
# Section 9

## How to Select Activities that are Developmentally Appropriate





# How to Select Activities that are Developmentally Appropriate



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*In this lesson you will be introduced to aspects of:*

- ➡ *Developmentally appropriate practices.*
  - ➡ *Use of developmental expectations in planning projects and activities with children.*
  - ➡ *Planning combinations of activities that meet developmental needs of children throughout the daily routine.*
  - ➡ *The role of play as a developmentally appropriate practice.*
  - ➡ *Using found or recycled materials to create inexpensive toys or projects.*
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- ☐ The material in this chapter is based on the *Widely Held Expectations for Children Ages 3-5* from the *Nebraska Iowa Primary Project Growing in the Heartland*.
- ☐ Activity ideas are interspersed to meet developmental needs of young children.
- ☐ This chapter contains ideas for setting up activities for young children. As you read these activities you are encouraged to experiment and try out the activities with the children you are working with. Keeping track of the activities you try in the journal provided in this chapter will help you to assess the impact on children's development.

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## **SECTION ONE: DEVELOPMENTALLY APPROPRIATE PRACTICE**

Developmentally appropriate practice is the use of expectations based on the age and stage of development a child is in when planning a curriculum of ideas , projects or activities for young children. Along with looking at age and stage of development, children's individual interests also need to be assessed. Just as young children need nutritious food for their bodies to grow, they need stimulating appropriate activities and projects for their minds to prosper.

### **Activity One**

How do you know if an activity is appropriate for the children you work with? Let's take an activity and put it to the test: making and playing with playdough.

### **Read Appendix A (in this chapter): Widely Held Expectations**

The rate of development varies from child to child yet each child tends to follow the same development patterns as expressed within the widely held expectations.

Based on this information now look at the activity. Check which areas of development making playdough with the children could stimulate?

- ☐ Physical
- ☐ Intellectual
- ☐ Mathematical
- ☐ Emotional and Social
- ☐ Development of Responsibility
- ☐ Reading
- ☐ Writing
- ☐ Aesthetic and Artistic

The answer is all of the above. Why?

Using Appendix A at the end of this chapter -- list under each area aspects of development that making playdough with young children could stimulate?

Physical



Intellectual



Writing



Responsibility



Mathematics



Emotional and Social



Aesthetic and Artistic



Reading



Working with children while making playdough allows children to use skills in many areas of development. Recipes for several kinds of playdough are in Appendix B at the end of this chapter. Try making playdough with children. As children actually follow, measure, mix and complete the recipe read to them or illustrated for them by the adult skills and challenges emerge. This activity is what is known as an open-ended activity.

Open-ended activities allow children at a various developmental levels to use the same material in a variety of ways to meet their own individual developmental needs. Children tend to return to activities which meet their needs as the developmental levels emerge.

Emerging skills are those skills at the next level a child begins practicing. This is one reason why children at this age like to do activities again and again and again. Open-ended activities allow children to use a material which they are familiar with to try or experiment with new concepts.

Now let's look at playing with playdough. Play is children's work. It is through playing with materials that children experiment with and conquer new challenges and skills. Play is the process by which learning takes place.

How can new concepts be stimulated with playdough? The tools children use with playdough may stimulate new concepts or activities for them.

Example: Children given scissors as a possible tool to use with playdough may begin to experiment successfully with cutting. Adults can help model proper scissor holding

techniques, safety limits for scissors can be defined and children begin a possible new physical and artistic experience which can later be transferred to paper or other materials.

## **Activity Two**

Brainstorm tools children could use with playdough. Allow children to give you input as to tools they would like to use with the playdough. As you think of tools also think of possible developmental skills. Here are a few to get you started:

### **TOOLS:**

rolling pins  
garlic press  
tortilla press  
scissors  
popsicle sticks

We have followed one activity (making playdough) through an extension activity (playing with tools and playdough) to establish an idea of how developmentally appropriate practice works. The next step is looking at the full day of projects and activities that are based on developmental expectations.

## **Section Two: Planning Developmental Activities Within The Daily Routine**

When planning for the children in your care, it is important to listen to children's interest and observe their skill levels.

First, children need an established daily routine. This routine needs to combine a variety of group and individual activities. A balance of quiet and active times also needs to be established throughout the day. Planning the day helps children to understand what comes next. Included within the routine for a full day program are mealtimes, snacks, rest or naptime, free choice times (including opportunities for building or block play, art projects, writing, songs and music, dramatic or pretend play, and playing with small manipulative items), story times, and outside play. Special events may disrupt the routine on

occasion. (Examples: field trips, visitors etc...)

Using developmentally appropriate practice throughout the day means including children in all aspects of the daily routine. Children can be involved in planning, setting-up, participation in activity or project, and cleaning-up. Each phase of the activity helps incorporate developmental skills children need.

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### Activity Three:

When making and playing with playdough, think how children can be involved in planning the activity, participation, and clean-up after the activity. What developmental skills can be strengthened by this activity?

#### Planning:

#### Developmental skills enhanced:

*Participation was covered in Activities 1 and 2*

#### Cleaning-up:

#### Developmental skills enhanced:

As you plan each activity throughout the day keep in mind the developmental skills of the children. Allow the children to be involved in every aspect. It is faster and easier to do some things yourself; however, each time you do

something for a child you could be removing one individual learning opportunity.

Second, children need an environment set up to allow for developmentally appropriate play. (Read the two chapters in this book: *Establishing and maintaining a healthy learning environment*; and *Establishing and maintaining a safe learning environment*.)

Remember, working developmentally appropriate materials, activities or projects throughout your daily routine does not push children to do skills prior to them being ready to try the skill. Developmentally appropriate activities, materials, or projects also should not hold children back from developing new skills as children are ready to face a new challenge. There is not a magic age at which children suddenly become ready to attain a skill. (Read the chapter in this book: *How children ages three to five grow and learn*.)

Third, children need choices. Children provided with a variety of activities or projects to choose from within a wide developmental range will select activities which meet their developmental needs. Adults must trust children to make choices and provide them with a variety of 'good' choices to choose from. Throughout the day children will not all be working on the same project at the exact same time. Nor will children use a material in the exact same way as another child. Individual choice and skills will change the face of the play.

#### **Activity Four:**

Read Appendix B at the end of this chapter. Choose two or three activities (depending on length and intensity of activity) to try with the children within your care.

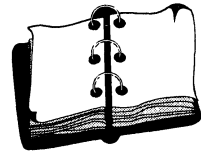
Remember to use materials covered in the first portion of this lesson to serve as guidelines for your selection. Which of these activities appeal to your children?

Record your process in the journal format listed below. Complete one journal entry per activity chosen. Return journal entries along with the quiz to receive your certificate hours.

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#### **Journal Format:**

1. Activity (title and short description of activity)
2. Ages of children involved in activity
3. Developmental skills
4. Reflection. The next time I use this activity I would.....



**Resources:**

Ages and Stages, Karen Miller, Telshare Publ. Co., Chelsea, Mass., 1985.

Caring for Preschool Children Volume I and II, Dianne Trister Dodge, Deryn Gosselin Koralek, Peter J. Pizzolongo, Teaching Strategies, Washington D.C., 1989.

Creative Resources for the Early Childhood Classroom, Judy Herr, Yvonne Libby, Delmar Publ. Inc., 1990.

Developmentally Appropriate Practice in the Early Childhood Program Serving children From Birth Through Age 8, Sue Bredencamp, National Association for the Education of Young Children, Washington D.C., 1986.

Don't Move the Muffin Tins, Bev Bos, Turn-the-Page Press, Inc., Roseville, CA., 1978.

Educating Young Children, Mary Hohmann and David P. Weikert, High/Scope Press, Ypsilanti, MI, 1995.

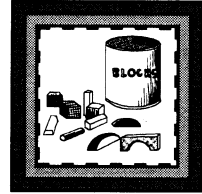
I AM! I CAN!, Harriet Chmela, Grace Mitchell, Lois F. Dewsnap, Telshare Publ. Co., Chelsea, Mass., 1992.

The Primary Program Growing and Learning in the Heartland, Nebraska Department of Education, Iowa Department of Education, Iowa Area Education Agencies, Head Start -State Collaboration Project, Lincoln, NE, 1993.

Think of Something Quiet, Clare Cherry, Telshare Publ. Co., Chelsea, Mass., 1981.

Many of these materials are available through the Early Childhood Training Center. For additional information about check-out call 1-800-89CHILD.

## HOW TO SELECT ACTIVITIES THAT ARE DEVELOPMENTALLY APPROPRIATE QUIZ



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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

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1. Developmentally appropriate practice is
  - A. activities or projects done every year in the exact same sequence.
  - B. the use of developmental expectations for a child's age and stage used to guide planning of activities for young children.
  - C. planning activities based on the holidays of the year.
2. An open-ended activity is
  - A. an activity that has no end.
  - B. an activity that stimulates many areas of development and is appropriate for a variety of ages and stages of young children.
  - C. an activity without any rules.
  - D. an activity that is fun and has no learning merit.
3. Emerging skills are
  - A. the skills a child tends to do once or twice.
  - B. the skills a child tends to practice over and over again as they gain confidence and capabilities.
  - C. skills at the next level that children begin to strive for as they practice the activity over and over again.
  - D. B and C
4. Developmentally appropriate practice involves children in:
  - A. clean-up of activities and projects
  - B. planning of activities or projects
  - C. participation in activities or projects.
  - D. all of the above.
5. The pattern with which children learn skills
  - A. is inconsistent at best.
  - B. can be taught at a faster pace if children are forced to try new skills.
  - C. follows a developmental sequence, however, the rate of development varies from child to child.

## APPENDIX A

### Widely Held Expectations

#### *What Are Widely Held Expectations?*

Widely held expectations are generalizations about children's development and learning over time. They are frames of reference that help parents and teachers focus on the development of the individual child. These are not expectations for all children but are general statements that show common patterns of development over time. They are based on expert knowledge, current research, observation of children, and the collective wisdom and common sense of parents and teachers.

Infants around the end of their first year are generally able to smile, sit up, eat solid foods, vocalize, understand and perhaps say a few words, and be on the way to taking that first step. Of course, these expectations are only generalizations—true for some infants, not for others.

Taken individually, none of these widely held expectations is particularly significant. After all, some infants never crawl before they walk, others don't say a word until one day in their own time and in their own way, they launch their first speech in complete sentences.

Nevertheless, these widely held expectations are useful generalizations, providing telling snapshots or graphic profiles. Taken together, they may say something important, show a pattern, or raise a question about the developing learner.

The widely held expectations in this document are divided between the five goals of the primary program, and in the areas of reading, writing, and mathematics. They have been organized for clarity and easy reference according to a time frame of birth through 13 years. However, when using the widely held expectations, the interest is learner-focused, so we begin where the child is developmentally, no matter what the age.

#### **Widely held expectations . . .**

- ① provide us with the big picture of children's growth and development over time;
- ② form the basis of the concept of continuous learning;
- ③ help parents and teachers focus on the development of individual children;
- ④ help teachers assess individual learners and plan appropriate learning experiences that ensure continuous progress;
- ⑤ serve as a reference for parents for reassurance about their child's on-going development;
- ⑥ can be used for reference by parents in providing developmentally appropriate toys, reading materials, and other opportunities to their children.



As parents and teachers use the widely held expectations, they will begin to develop a picture of a child's progress in relation to the general development of other children of a similar age. When looking at the charts on the following pages, you might want to:

- ⇒ Look at all goal areas to gain a balanced view;
- ⇒ Look at the age ranges on either side of the child's age to appreciate growth over time;
- ⇒ Remember each child is an individual and will shine more brightly in some areas;
- ⇒ Use this resource as a starting point and one way of viewing development over time;
- ⇒ Consider the experiences that home and school have provided; and
- ⇒ Be patient—learning is a lifelong process.

Regardless of whether teachers are thinking in terms of programs, learning goals, planned activities, or curriculum areas (subjects), the child must always be the first consideration.

When considering the developing learner, teachers take into account the child's:

- ♥ sense of security in social settings;
- ♥ family relationships;
- ♥ needs;
- ♥ previous experiences;
- ♥ age;
- ♥ health;
- ♥ interests;
- ♥ feelings;
- ♥ learning rates and styles;
- ♥ abilities; and
- ♥ attitudes, skills, and knowledge.

In planning experiences in the primary program, the teacher thinks about:

- ☞ how children learn best;
- ☞ what learning is appropriate; and
- ☞ when it is best learned.

The primary program is organized around the five goals so teachers can plan experiences that meet the needs of the whole child. In school, when curriculum assessment, and evaluation take these factors into consideration, the program is developmentally appropriate.

For the widely held expectations described on the following pages, the statements and examples of children's development provide only a sample of generally observable behaviors. Parents and teachers will likely think of many other similar examples.

Given that a child has had both home and school opportunities to develop in each goal area, the following widely held expectations may apply to the child's development.

## Widely Held Expectations in Aesthetic and Artistic Development

### *Birth - 3 years*

- may try to grasp writing tool with whole hand.
- may draw randomly and look away while drawing or making marks on paper or board.
- may begin to make scribbles for pleasure of seeing the results of their actions.
- use scribbles, lines, and circles for expression.
- may begin to express pleasure or displeasure (laughing, anxiety) when listening to sounds, voices, and music.
- may begin to move body to sounds and music.
- may make sounds to music without using words ("la, la" or "ba, ba"), may enjoy hearing own sounds.
- may enjoy pretend games.
- may look at, talk to (babble), grasp, bang, or drop toys.

### *3 - 5 years*

- may learn to hold writing tools between fingers and thumbs.
- may make marks, draw, paint, and build spontaneously to express self.
- may begin to name a person, place, thing, or an action in a drawing.
- gradually try making lines and circles repeatedly and with more control.
- may respond to music, art, and nature through body movement that is rhythmic, e.g., rocking, clapping, jumping, or shaking.
- use movements that are generally spontaneous, unrehearsed, and inventive.
- may be relatively uninhibited about singing and playing musical instruments.
- may use both a speaking voice and a singing voice when singing alone, with a tape or others, and may or may not be able to sing a melody in tune.
- often engage in pretend play easily and naturally.
- may talk to and play with pretend friends, television characters, stuffed and other toys.

### *5 - 7 years*

- continue to develop the ability to hold and use large size writing and drawing tools.
- may show first attempts at drawing, painting, and building "things".
- continue to name what has been drawn, painted, or constructed.
- may strive for more detail and realism in artwork.
- gradually include more detail and add more body parts when drawing people.
- continue to expand and refine responses to a variety of sounds, voices, and music.
- may show imaginative and creative ways of moving and dancing.
- are increasingly able to initiate and repeat movement patterns (walk like a lion, slither like a snake).
- may "act out" stories spontaneously.
- often continue to be relatively uninhibited about singing and playing musical instruments.
- are developing a singing voice, but the range will differ; may or may not be able to sing a melody in tune.
- often continue to show lots of imagination and interest in make-believe.
- continue to talk to imaginary friends; may greet an imaginary friend or call someone with a striking sense of reality.

## Widely Held Expectations in Emotional and Social Development

### *Birth - 3 years*

- may demonstrate visible expressions of emotion (temper tantrums).
- actively show affection for familiar people.
- may show anxiety when separated from familiar people and places.
- are naturally very curious about other children and may watch and imitate others.
- generally play alone; may or may not attempt to interact with others.
- strive toward independence with support and affection (sitting up, crawling, walking, dressing, feeding, toileting).
- begin to see themselves as people and appear self-centered.
- begin to see themselves as strong through directing others: "Sit down."
- may become possessive of belongings (special people, toys, special times).

### *3 - 5 years*

- may display their emotions easily and appear very sensitive and impulsive (crying fits, "No!").
- begin to feel more comfortable when separated from familiar people, places, and things (visiting a neighbor, nursery school, baby-sitter).
- may play alone or beside others but are becoming more aware of the feelings of others. May be frustrated at attempts to socialize but hold no grudges.
- begin to assert independence by saying "No" or "I can do it myself!" May dump a cupful of water onto the floor while looking directly at you.
- see selves as family members and as boy or girl in the family.
- see themselves as powerful and creative doers. If the child can't reach something, he or she will get a stool.
- may continue to appear possessive.
- may feel if something is shared for a brief period, it is gone forever.

### *5 - 7 years*

- may continue to show intense emotions (one moment will say, "I love you" and the next "You are mean.")
- may appear anxious once again when separated from familiar people and places (beginning school, sleep overs).
- are learning to cooperate with others for longer periods of time; friendships may change frequently.
- continue to develop feelings of independence by becoming able to do certain things (making a simple breakfast or riding a bicycle).
- may begin to talk about self and to define self in terms of what they have or own.
- may feel they are being treated unfairly if others get something they do not.
- begin to see themselves as bad, good, clever, and may seem very hard on themselves.
- begin to develop the ability to share possessions and take turns.

## Widely Held Expectations in Intellectual Development

### *Birth - 3 years*

- make direct contact with their environment to the best of their ability—doing, seeing, hearing, tasting, touching, and smelling (put objects in mouth).
- are beginning to develop an understanding of language and how it works (imitating sounds, saying words, putting words together).
- are learning to name objects and may use the same word for two or more objects (all vehicles called "cars").
- express themselves through scribbles, lines, and circles.
- "read" pictures for meaning; begin to recognize that writing has meaning (writing is intended for communication).
- are likely to think about time in "here and now".
- are increasingly able to identify familiar faces, toys, places, and activities.
- are developing personal choice (a favorite blanket or toy).
- may be interested in grouping objects (putting all the large animals to bed and leaving the small ones to play).

### *3 - 5 years*

- continue to explore the world around them by objective manipulation and direct experience (playing).
- begin to understand cause and effective ("I fell, I cried, I hurt.")
- begin to use language to name objects and their own direct experiences of them ("stove—hot").
- name objects and may find two objects are alike in some way (cats and dogs are animals).
- are developing a sense of how writing and reading work.
- combine drawing and "writing" — drawing conveys most of meaning.
- play at reading — "read" pictures (telling story from pictures).
- begin to read commercial and traffic signs (STOP).
- continue to develop an understanding that writing conveys a message.
- may think of tomorrow as "after my sleep" and use words like "tomorrow" and "yesterday" though not always correctly.
- may learn nursery rhymes, songs, and addresses, but without really trying to remember.
- begin to assert personal choice in decision-making ("No broccoli!").
- are developing an interest in the number of things.
- are increasingly interested in counting although the number may not match the number of objects.

### *5 - 7 years*

- continue to learn from direction experience (playing).
- expand and refine knowledge with increasing understanding of cause and effect ("I can go to my friend's house if I call home when I get there.")
- continue to expand their understanding and use of language to clarify thinking and learning.
- are continuing to develop a sense of how writing and reading work.
- combine drawing and writing to convey ideas.
- understand that print "tells" the story.
- develop a basic vocabulary of personal words.
- read slowly and deliberately.
- will substitute words that make sense when reading.
- developing an understanding of words like "tomorrow;" may still be unsure about length of time ("Is it ready?" or "Are we there yet?").
- may begin to organize information to remember it (own telephone number, sound-symbol relations).
- continue to assert personal choice in decision-making (what to wear to school).
- begin to understand that the number of objects does not change when grouped in different ways.
- are developing the ability to match counting 1, 2, 3 with the number of objects.

## Widely Held Expectations in Physical Development

### *Birth - 3 years*

- may experience a period of extremely rapid growth.
- develop the ability to move about and to manipulate objects to the best of their ability.
- begin to develop vision by following slowly moving objects with their eyes.
- begin to develop hand-eye coordination—reaching, grasping, objects, feeding, dressing.
- begin to recognize concepts of place and direction—up, down, in.
- begin to move about—sit, stand, crawl, walk, climb stairs, walk backwards—to the best of their ability.
- are beginning to identify their own body parts, often through nursery rhymes and games.
- are unaware of physical strengths and limitations so may attempt activities that could be difficult or dangerous.
- may often change activities.
- will move about at own pace, always near a trusted adult.
- are likely to play alone or beside another.
- begin to play games like peek-a-boo and hide-and-seek.

### *3 - 5 years*

- are experiencing a period of rapid growth.
- have a slower rate of small muscle development (hands) than growth and coordination of large muscles (legs).
- are usually naturally farsighted.
- continue to develop hand-eye coordination and a preference for left or right handedness.
- begin to understand and use concepts of place and direction—up, down, under, beside.
- are developing the ability to climb, balance, run, gallop, jump, push and pull, and take stairs one at a time.
- are beginning to identify body parts and words used in movement—jump, wave, hop.
- seem unaware of their own physical strengths and limitations and may try potentially difficult or dangerous activities.
- may change activities often, although sometimes concentrate on one thing for a long time if interested.
- are beginning to take part in group situations, but still play side-by-side rather than "with" others.

### *5 - 7 years*

- may not experience a slower rate of physical growth. Large muscles (legs and arms) may be more developed than small muscles (hands and feet).
- may increase fine motor skills (handling writing tools, using scissors).
- usually continue to show farsightedness.
- continue to develop hand-eye coordination. A preference for left or right-handedness may still be developing.
- continue to develop an understanding of direction and place although may confuse right and left, up and down when playing games.
- continue to develop climbing, balancing, running, galloping, and jumping abilities. May have trouble skipping.
- are growing in their ability to know what and where their body parts are, and how they can be moved and coordinated.
- continue vigorous activity, tiring easily, recovering quickly.
- tire from sitting rather than running.
- develop an awareness of safety with guidance.
- usually show enthusiasm for most physical activities and are sometimes called noisy or aggressive.
- are developing the ability to take part in small group games, and usually begin to play in groups of children of same sex.

## Widely Held Expectations in Development of Responsibility

### *Birth - 3 years*

- appear insensitive to the views of others, yet show interest in them.
- are generally self-centered in their views.
- look at the world mostly from their own viewpoint (may think the sun sets because they go to bed).
- may cry when they see or hear another child crying.
- physically explore the environment to the best of their abilities using their senses (seeing, hearing, tasting, smelling, and feeling).
- are natural explorers, eager for new experiences.
- are beginning to distinguish between familiar and unfamiliar faces.
- are becoming aware of their own feelings and respond to others' expressions (become upset if caregiver is also upset).
- begin to recognize consequences follow actions.

### *3 - 5 years*

- are becoming aware of others and beginning to take part in social play groups.
- may play "beside" rather than with others.
- are beginning to see that their views differ from those of others but remain self-centered.
- may show aggressive feelings toward others when something does not go their way.
- are beginning to sense when another person is sad, angry, happy.
- become interested in exploring the environment outside the immediate home. May be interested in growing seeds, weather, seasons, the moon, and sun.
- continue to eagerly explore the world around them.
- are becoming more aware of family and social relationships.
- may sense another person's unhappiness (such as another child crying) and not know how to help.
- become aware of consequences of own behavior.

### *5 - 7 years*

- are developing the ability to take part in social groups and for longer periods of time, increasing awareness of others.
- may prefer to play alone at times or with others.
- are developing the ability to see that others have feelings and different views than their own.
- may begin to respond to others in times of distress if they are supported and encouraged to do so.
- are developing an interest in the community and the world outside their own.
- may begin to show an awareness of basic necessities (food, clothing, shelter).
- are beginning to develop an interest in specific issues pertaining to their world (recycling).
- may begin to notice how people are similar and different from one another.
- are developing the ability to respond sympathetically to others if they are hurt, upset or crying.
- begin to understand consequences of own and others' behavior.

## Widely Held Expectations in Reading Development

### *3 - 5 years*

- are curious about print in own environment — names of letters, signs, labels, and logos.
- play at reading: "read pictures" rather than print.
- begin with naming and commenting on the pictures, then telling stories from the pictures.
- "read" print in own familiar environment (restaurant signs, familiar places, traffic signs).
- know that print is a source of information and enjoyment.
- begin to develop a "sense of story."
- focus on the whole story rather than on individual words.
- begin to develop knowledge of some conventions of print, front-to-back directionality of books.
- rely on an adult or older child to read text.
- like books with illustrations, repetition, and rhyme.

### *5 -7 years*

- are curious about print — word forms and spellings.
- role play themselves as readers, relying heavily on memory at first.
- begin to focus on print, but use pictures to predict and confirm meaning.
- attempt to match voice to print.
- are increasingly able to recognize environmental print away from its familiar context.
- begin to develop a basic vocabulary of functional and personal words recognized on sight.
- understand that the print "tells the story."
- continue to develop a "sense of story."
- are increasingly able to deal with the parts of print (letters and words).
- increase awareness of print conventions (top-to-bottom and left-to-right directionality, punctuation).
- develop knowledge of common letter-sound relationships.
- begin to develop an ability to try reading print, including ways to figure out unknown words (common letter sound associations, picture clues).
- choose short books with simple stories and illustrations.
- enjoy reading favorite books.

## Widely Held Expectations in Writing Development

### 3 - 5 years

- view writing as something that people do and like to play at writing; are curious about letters and words.
- combine drawing and writing but drawing conveys most of the meaning.
- may not intend to convey a particular message and may ask "What does this say?" of own writing.
- play at writing and may produce:
  - scribble writing (imitative cursive writing);
  - random symbols (strings of symbols that resemble letters);
  - random letters (strings of letters);
  - single letters that represent a sound (S for "snake") or a syllable (dd for "daddy").
- may produce some conventional words (own name, mom, dad) as well as play writing.

### 5 - 7 years

- are interested in the names of letters and how to represent specific speech sounds; write mainly for personal interest.
- combine drawing and writing to convey ideas.
- demonstrate increasing knowledge of letter names, common letter-sound associations, especially consonants and some forms of writing (labels, stories, letters).
- produce increasingly conventional writing by:
  - writing in capitals and moving toward the use of lower case letters;
  - spelling with consonants and moving toward phonetic spellings that include vowels;
  - spelling some common words conventionally;
  - showing some sense of directionality but may reverse some letters (b and d) or right to left at times;
  - starting to use some punctuation marks (periods).
- may produce:
  - writing usually related to their own experiences;
  - a label or caption to accompany a drawing;
  - single words or phrases;
  - short, simple sentences;
  - a series of simple sentences;
  - simple stories with one or two characters.



## Widely Held Expectations in Mathematics Development

### *Birth - 3 years*

- begin to recognize "one" and "more than one."
- count to nursery rhymes or the alphabet song.
- begin to pick out one thing from a group. Sometimes find two or three that are the "same."
- begin to identify simple qualities of things like soft and hard or "hot" and "cold."
- begin to get some ideas of how things are alike and how they are different.
- may follow the "path" of an object.
- may use simple quantity words such as "one more cookie" or "more milk."

### *3 - 5 years*

- recognize and count up to five. identify portions when sharing.
- recognize and name simple shapes (squares, circles, triangles).
- match pictures to actual shapes.
- sort using a single attribute.
- recognize simple patterns.
- learn more qualities of objects ("thick" and "thin").
- line up two or three objects using size or some other category.
- use language to begin to get ideas about space and time (next to, on top of, before, after).
- compare objects.
- use measurement words ("big and small," "short and tall," "near and far").
- may recognize that two is always two and three is always three but does not apply this concept beyond five.

### *5 - 7 years*

- count first by starting back at 1 each time something is added.
- begin to pick up counting where they left off, starting with 7 and counting on to 8 and 9.
- count all types of things; play with counting forward or backward.
- enjoy counting to 10 and idea of big numbers.
- use pattern blocks and other materials to make and extend patterns.
- match objects in one set to objects in a second set.
- sequence things from the biggest to the smallest by size or other variable.
- may insert items into a sequence at the appropriate place.
- enjoy lining up according to size.
- may enjoy card games that help consolidate concepts.
- classify objects in a variety of ways.
- may isolate a set from a collection.
- may realize that a collection can be sorted in more than one way.
- begin to develop a stable idea of a straight line.
- try measuring all sorts of things but with non-standard units.
- begin to recognize that 10 is 10 or 20 is 20, no matter how objects are arranged in a group.
- work with simple number facts showing different sums with many types of materials.

## Appendix B

### Playdough

2 ½ c. flour      2 c. boiling water  
½ c. salt          3 T. cooking oil  
1 ¼ T. alum      Food coloring

Boil water, oil and food coloring together. Mix flour, salt, and alum. Add boiling mixture to flour mixture and stir. After stirring with a spoon, knead with hands on floured surface until cool. Store in a tightly covered container.

Hint: The more food coloring used the darker the color intensity.

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### Scented Playdough

4-5 c. flour  
½ c. salt  
2 pkgs. unsweetened Kool-aid powder  
3 T. cooking oil  
2 c. boiling water  
1 T. alum

Mix together dry ingredients. Add oil to boiling water. Add water and oil mixture to dry ingredients. Knead until smooth on a floured surface. This smells really good, maintains color. Keep in a tightly covered container.

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### Homemade Bubbles

1 c. dish washing soap  
1 T. glycerin  
1 gal. water

Mix together. Let stand at least 24 hours, uncovered. Good for up to 1 week.

Hint: Dish washing soap without lotions works the best. Glycerin can be found at most pharmacies including discount stores.

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### Face Paints

3 tsp. tempera paints  
Squirt of dish soap  
1 tsp. baby oil

Mix ingredients together in small containers. Apply cold cream on face first. Apply paint with brushes, Q-tips or fingers.

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### **Sidewalk Chalk**

1 c. plaster of paris  
½ c. water  
liquid tempera  
toilet paper tubes  
tin foil

Tear tin foil into 6 inch strips. Divide strips into 2 squares. Wrap square around one end of the toilet paper tube. Set aside. Mix plaster of paris, tempera and slowly add water to a thin pudding consistency. Pour mixture into the tube. Allow to dry until firm to the touch. Peel paper away rubbing final remains until a smooth surface.

Hint: Use a variety of colors of tempera. Don't forget the florescent and bright colors. If chalk is too hard next time add more water.

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### **Soap Balls**

2 c. Ivory Snow  
1/4 c. liquid (including water, fragrance and food coloring)

Mix in a small bowl. Shape into balls or pat out and cut with cookie cutters.

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### **Cinnamon Dough**

1 4 oz. container cinnamon  
applesauce

Add full container of cinnamon to bowl and spoonfuls of applesauce. Mix to create a play dough consistency. Roll on wax paper. Use cookie cutters to make cut-outs. Allow to dry. Drying can be done by slow baking in the oven or air drying. Drying can take several days.

Hint: This clay stains surfaces. Make sure you use wax paper to roll out on. Use a straw to cut a round hole in the top of figure. These then can be hung with a ribbon or string. The fragrance is wonderful.

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### **Silly Putty**

2 c. school glue  
1 c. liquid starch  
food coloring (optional)  
gallon zipper lock style bag

Pour glue and starch into the zipper lock style bag. Close. Check to insure bag is sealed. Begin kneading ingredients together. Add food coloring.

Hint: The amount of food coloring determines the intensity of the color. Add additional glue if mixture seems runny. Add additional starch if mixture is tough.

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### **Rainbow Crayons**

broken pieces of crayon  
muffin tin  
tin foil muffin papers

Place broken crayons in a variety of colors in tinfoil muffin papers. Place in a 300 degree oven until crayons begin to melt together. Remove promptly. Cool. Peel papers and use as crayons.

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### **Prop Boxes**

Prop boxes are containers storing materials or costumes children can use for dramatic play.  
Follow children's lead to select topics. Remember imagination is expanding during the 3-5 years. Real objects found in thrift stores and garage sales can truly enrich play. Boxes can serve as storage as well as be made into a part of the theme. Boxes can be painted to represent cars, fire trucks, food stands. Possible prop box themes can come from your town, city or neighborhood or straight from a favorite pretend place. Possible prop box ideas:

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### **Firefighter**

dryer hose or pieces of garden hoses  
rubber boots  
child size firefighter hats  
raincoats  
boxes can be decorated by children to create fire trucks.

### **Restaurant**

table clothes  
items to represent food  
menus(Older children can make these)  
small pads of paper with pens/pencils  
silverware  
plates  
napkins  
aprons  
cash register(remember a box of tokens also works)  
Items can also be collected from your favorite food establishment.

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### **Grocery Store**

empty food containers  
sacks  
aprons(could be the same as restaurant)  
cash register with money  
shelves  
carts or baskets to carry food

Brainstorm based on the interests of the children within your center. Ask parents to help you collect items. Begin to collect your boxes. Listen to children for ideas of dramatic play they are doing use the box to embellish their play.

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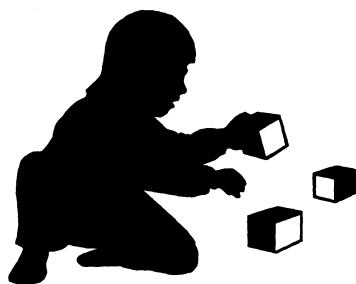
## **Unit Blocks**

½ gal. paper milk cartons  
1 quart paper milk carton  
1 pint or ½ pint paper milk cartons  
salt boxes  
Oatmeal boxes  
Cornmeal boxes  
Pringles cans  
rolls of contact paper  
duct tape

Rinse each carton . Allow to air dry. Use duct tape to fold down open end of paper milk cartons. Cover each carton with contact paper. This creates a brick.

The use of a variety of sizes allows for building. The sizes also begin to teach concepts of fractions. The quart is ½ the size of the ½ gallon box etc....

The salt and oatmeal boxes create columns. These also may be covered with contact paper. Use your imagination for uses of other items or boxes. Building can be rich and fulfilling if children are allowed to experiment with the concept. Children can also help in the covering of the blocks. Add small bells or pieces of rice in some containers prior to wrapping in contact paper. These add a new dimension to children's exploration.



## **Other Possible Building Materials:**

End pieces of wood (Lumber yards will sometimes save these)

Plastic PVC pipe and connectors(Check with local plumbers)

Large cardboard boxes

Spools

Blankets, chairs and card tables

Cardboard tubes in a variety of sizes

Small wooden table blocks

## **Sensory Tables**

Sensory tables are sometimes filled with water or other materials. Sensory tables maybe purchased or can easily be made from a variety of kinds of containers. Examples can include: small wading pools, dish tubs (for individual sensory experiences), or diesel truck or tractor oil drain pans.

It is important to note that food items such as beans or rice may offend some parents. It is often painful for parents of some cultures to see children playing with food. Food is a commodity which is not always plentiful for all families. Children need to be taught respect for food items. Playing with food sends children a double message. We expect them to eat at mealtimes and not 'play with their food', yet, we as caregivers give them food to play with.

**Materials to fill a sensory table:**

Water ( with food coloring or dish washing soap or spiced flavorings such as peppermint or a combination of any of the above)

Cotton balls (white or colored)

Bird seed (when this material hits the floor have children sweep it up and feed it to the birds)

Cornstarch and water

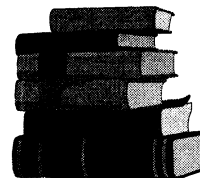
Sand

Snow (add colored water in mist bottles to spray the snow or palettes of water color paints to paint the snow)

Materials to fill and dump (plastic bowls with lids, spoons, scoops, funnels, measuring cups)

Sensory tables are calming devices for young children. This activity allows for messy experimentation of developmental concepts.

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**Literature**

- ⊗ Literature is also an important part of using developmentally appropriate materials. Children need opportunities to interact with pieces of high quality literature daily.
- ⊗ Books can serve as a springboard for children's imagination. Children relate to the characters in their stories. Stories can also spark interest in a specific topic.
- ⊗ Store books so that children have access to them. Display cover side out not shelved like in a library. Children will learn the books by their covers. Remember in most cases the children cannot read the spines of books.
- ⊗ Sources for quality literature include your local library or book mobile, book stores, and discount stores. Another source includes book clubs. Check with your local elementary school. There are flyers which are sent home with children from several different companies where parents can order books for their children. Schools then receive free books based on the number of books ordered. Most companies have a preschool division. This is one way to receive books for your center. As few as 10 books earn free books. The books are also reasonably priced.
- ⊗ Books serve as an introduction to reading and literacy practices. Remember to read titles and author's names to children. They will develop favorites.

## Literature selections to consider include:

**Barbara Berger's**  
Grandfather Twilight

**Eric Carle's**  
The Very Hungry Caterpillar  
The Very Busy Spider  
The Grouchy Ladybug  
The Very Quiet Cricket  
The Lonely Firefly

**Miriam Cohen's**  
Will I Have a Friend?

**Don Freeman's**  
Corduroy  
A Pocket for Corduroy

**Pat Hutchin's**  
And the Doorbell Rang  
Rosie's Walk

**Laura Joffe Numeroff's**  
If You Give a Mouse a Cookie  
If You Give a Moose a Muffin

**Ann Jonas's**  
Round Trip

**Gail Jorgensen's**  
Crocodile Beat

**Ezra Jack Keats'**  
Whistle for Willie  
Peter's Chair  
A Snowy Day

**Ruth Krauss's**  
The Carrot Seed

**B. Martin's**  
Brown Bear, Brown Bear  
Polar Bear, Polar Bear

**Vera William's**  
A Chair for My Mother

**Don and Audrey Wood's**  
The Little Mouse , the Red Ripe Strawberry,  
and the Big Hungry Bear  
King Bidgood's in the Bathtub  
Quick as a Cricket

## Non-fiction selections to consider include:

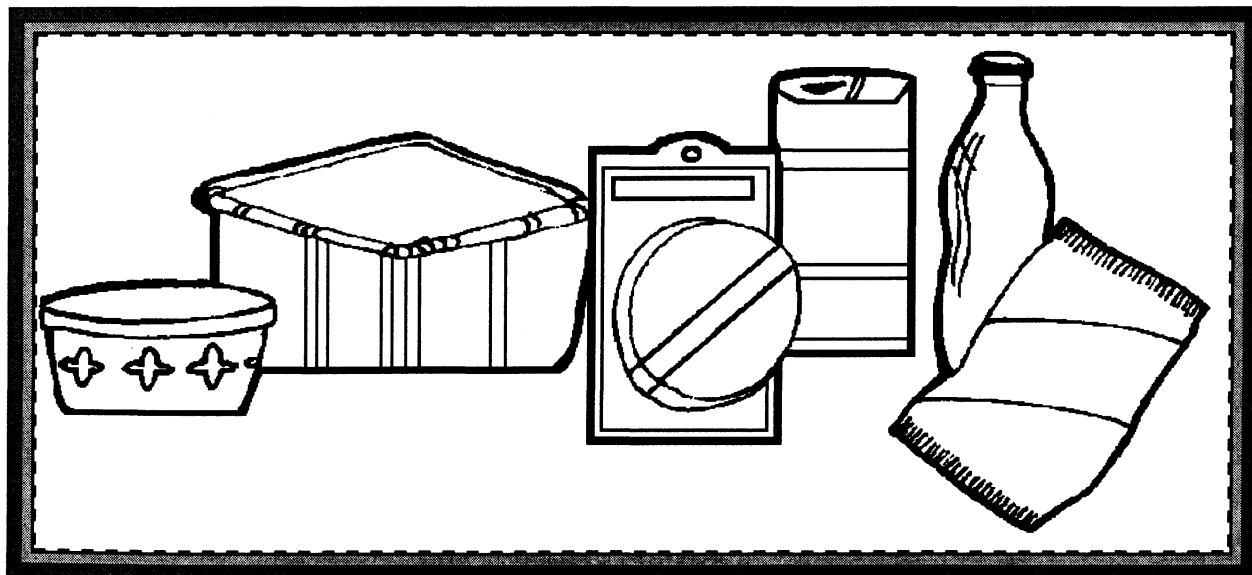
The Eyewitness Books Series  
Published by Alfred A. Knopf Inc.

**Barbara Bardieri McGrath's**  
The M & M Counting Book

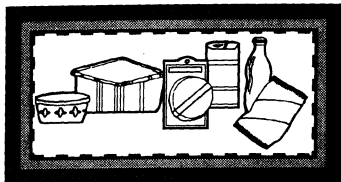


# Section 10

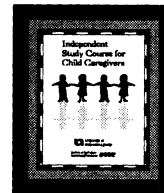
## Children with Special Needs







# CHILDREN WITH SPECIAL NEEDS



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*The objectives of this topic include the following:*

- ➡ *Provides an overview of several common syndromes and common nutrition related problems.*
- ➡ *To increase the awareness of nutrition related problems of people with development disabilities.*

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- 
- ❑ Adequate nutrition is essential for the total care and rehabilitation of children and adults with developmental disabilities.

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# NUTRITION OVERVIEW

- ☐ Optimal nutrition is essential for persons with disabilities to realize their full developmental potential.
- ☐ Poor nutrition may lead to problems such as failure to thrive, obesity, anemia and other nutrient deficiencies.
- ☐ There are no dietary standards written specifically for persons with disabilities; however, persons with disabilities require the same nutrients as their age-specific group.
- ☐ Primary medical conditions can influence the number of calories and amount of nutrients needed to maintain good health.
- ☐ Nutrition-related problems can occur quickly or may go unnoticed until a serious problem results.
- ☐ Early identification and treatment of nutritional concerns may help prevent hospitalization and medical therapy.
- ☐ A screening plan with referral to a registered dietitian for complete assessment will improve the health of both children and adults.
- ☐ Parents, caregivers, educators and others who work with this population are in the best position to identify problems.

## Common Disabilities

### Down syndrome

*Down syndrome* is a chromosome anomaly resulting in multiple malformations. These may include mental retardation, upward shaped eyes, a protruding tongue. Brushfield spots (grey or pale yellow spots on the iris), a single crosswise crease in the palms and hearing loss. The head may be flattened in the back and the ears small and sometimes folded a little at the tops. The nose is small and the bridge of the nose is flattened. The child or adult with Down syndrome is often short in stature and has reduced muscle tone. Many have heart defects that can be corrected with surgery. There is an increased incidence of thyroid disorders that may affect growth, energy needs and feeding. Adults with Down

syndrome also have an increased incidence of Alzheimer's disease.

In normal reproduction, egg and sperm cells each contribute 23 chromosomes making a total of 46. In Down syndrome, either the egg or the sperm cell contributes 24 chromosomes instead of 23. The result is that the chromosomes present total 47 instead of the 46. The most common kind of Down syndrome is known as trisomy 21, because of the presence of three #21 chromosomes. There is no way to prevent Down syndrome; however, it can be detected prenatally in a fetus by amniocentesis or chorionic villus sampling.

Down syndrome is one of the most common birth defects. It affects all races and economic levels of society equally. There is a significant increase for women to have a child with Down syndrome after the age of 35 years. In general, Down syndrome occurs once in about every 1,000 births in the United States. The frequency for a 35 year old pregnant woman is one in 400, at 40 one in 110, and at 45 years one in 35.

Major medical problems, such as congenital heart disease and blockage of the small intestine require specialized medical and surgical treatment in infancy. Later in childhood, health problems are less severe and may include frequent ear and respiratory infections. Poor oral motor control leads to feeding problems and delays in feeding progression. Weight may vary from appropriate to under or overweight. Constipation is a common problem of the child with Down syndrome. Stool softeners and a high fiber diet may be beneficial in the treatment of constipation.

#### *Growth Trends:*

- Short stature
- Weight varies from appropriate to over or underweight

#### *Physical Problems Affecting Feeding:*

- Difficulty sucking and swallowing
- Drooling
- Poor tongue and lip control
- Overly sensitive mouth
- Delayed self-feeding skills
- Dental problems
- Fatigue

#### *Nutrition and Feeding Concerns:*

- Parents need help in determining when their child is ready for various food textures

- Avoid overfeeding and use of food as a reward
- High-fiber diet may help constipation

## **Cerebral Palsy**

*Cerebral Palsy (CP)* is a disorder of muscle control or coordination and is nonprogressive. It results from injury to the brain during its early stages of development. Commonly, children with cerebral palsy are also mentally retarded (60-70%), and have visual problems (50%). Degrees of symptoms may be termed mild, moderate, or severe. It is estimated that 3,000 infants are born with CP each year in the United States. The incidence is higher in areas where there is poor prenatal care and accompanying prematurity. CP is classified according to type of syndromes. These syndromes are:

### **Spastic Syndromes**

Characterized by an increase in muscle tone or stiffness of the muscles.

*Hemiplegia-* Unilateral paresis arm affected more than leg

*Bilateral Spastic Hemiplegia or Double Hemiplegia-* Usually asymmetrical involving all four limbs with arms affected more than legs

*Diplegia-* Paresis of both lower limbs with little or no involvement of the arms

*Quadriplegia-* Paresis of all four limbs with legs affected more than the arms

### **Dyskinetic Syndromes**

Involuntary movements interfering with activity and function of all four limbs, usually with more disability in the lower limbs than the upper. Involuntary

movements can include one or more of the following:

*Chorea*- Rapid, irregular, unpredictable, spasms of individual muscles or small muscle groups of the face, fingers and toes

*Athetosis*- slow, smooth mostly involving (distal muscles) muscles of the arms and legs.

*Dystonia*- Rhythmical; usually sustained changes of tone with twisting distortions of trunk and limb muscles.

*Ballismus*- Wide flinging or jerking movements of the extremity.

### **Ataxic Syndromes**

Imbalance and incoordination of voluntary movements of the trunk and limb muscles. Lower limbs are usually more involved than upper.

### **Mixed Syndromes**

These have features of spasticity and dyskinesia.

In as many as 50% of CP cases, the specific cause of the injury is not known. Some of the circumstances that may cause CP are listed below:

*Prenatal*: (1) Maternal infections such as rubella, cytomegalovirus, (2) Maternal metabolic problems such as diabetes, (3) Lack of oxygen caused by placental or cord abnormalities

*Perinatal*: (1) Difficult labor or delivery, (2) Lack of oxygen to the fetus, (3) Prematurity

*Postnatal*: (1) Respiratory problems, (2) Head trauma, (3) Infections

Because the problems associated with CP are many and complex, treatment is interdisciplinary and involves not only the physician but physical therapy, occupational therapy, speech pathology, and nutrition. Feeding problems are generally caused by poor oral motor control and include poor sucking and swallowing ability, excessive drooling, poor lip and tongue control, and tongue thrust. Because of feeding and other problems, children with CP often have difficulty gaining weight and require increased levels of calories in their diets. Also, these children usually are at risk for dehydration and constipation, thus close attention must be focused on fluid and fiber intake. Since many of them suffer from seizure disorders as well, they are often on anti convulsants which may influence nutrient metabolism.

### *Growth Trends:*

- Short stature
- Poor weight gain

### *Physical Problems Affecting Feeding:*

- Difficulty sucking, chewing, swallowing
- Overly sensitive mouth
- Bite reflex
- Delay in hand-to-mouth coordination and self-feeding
- Easily tired during feeding
- Dental problems

### *Nutrition and Feeding Concerns:*

- Parents need help in determining when their child is ready for various food textures
- Appropriate calories for weight management are determined based on physical activity and muscle tone
- Adequate fluid intake

- High fiber, if constipation persists
- Foods that are concentrated in nutrients and calories
- Diet relatively low in simple sugars to prevent tooth decay

## **Cleft Lip or Palate**

*A cleft lip or palate* results when the various parts of a lip or palate don't grow together to make a single lip or hard palate. A cleft usually can be detected at birth, however, it might not be noticed until a feeding or speech problem appears. Normal development of a lip and the hard and soft palates is essential to proper eating and speech production. Clefts also affect hearing and tooth formation. Some children are born with a partial cleft palate only. Some have a cleft on one side, some on both sides. The cleft can be quite small or extend the length of the palate. Some children have a cleft lip only, and some have a cleft of the muscles of the palate.

Clefting can occur by itself or be a part of several genetic syndromes. However, isolated clefting may be related to environmental factors such as the use of ethanol and illicit drugs during the prenatal period. It is known that the clefting occurs during the first six through the thirteenth weeks of pregnancy. Since the cause of clefting is so unclear, it cannot be prevented.

Overall, about 5,000 children (one out of every 700 births) are born with cleft lip and/or palate in the United States. Large differences in incidence occur between racial groups. For example, in Caucasians, cleft lip and/or palate occurs in one of every 500 live births, while in Blacks, it occurs in only one of every 2500 live births.

Usually these children require extended treatment involving many different specialists. An early concern for parents is feeding. Feeding problems arise because the baby may have a poor sucking ability and/or food may escape into the nasal passage. Usually these problems can be alleviated by counseling parents on the use of special cleft lip/palate nurse sets and proper positioning while feeding and providing follow-up for the first two or three months. Later on, surgery, dental needs, speech, ear care and school concerns take priority.

### *Growth Trends:*

- Poor weight gain when feeding problems present

### *Physical Problems Affecting Feeding:*

- Difficulty in sucking, chewing, swallowing (infancy)
- Excessive air swallowing (infancy)
- Vomiting through the nose (infancy)
- Dental problems interfering with chewing a wide variety of foods

### *Nutrition and Feeding Concerns:*

- Selecting an appropriate nipple and bottle for feeding
- Feeding slow enough to prevent choking, but fast enough to prevent fatigue
- Positioning while feeding
- Frequent burping
- Avoiding hard, sticky foods or small particles that may stick in the cleft palate opening
- Diet relatively low in simple sugars to prevent tooth decay
- Cup drinking prior to corrective palate surgery

## **Epilepsy/Seizure Disorders**

Any recurrent seizure pattern is considered epilepsy. Seizure is a spontaneous, uncontrolled action of the central nervous system in which sudden, brief attacks of altered consciousness, motor activity or sensory abilities occur. The symptoms of epilepsy vary. In some cases, the only symptom of a seizure is a brief interruption of consciousness, a twitching thumb, an aching stomach, or a headache. In other cases, the seizure may involve movements of the whole body and lead to a loss of consciousness. Seizures may be classified as partial (usually involving part of one cerebral hemisphere); generalized (involving both hemispheres); or unclassified (not enough data to classify). Irreversible brain damage or even death may occur in some cases of epilepsy. Usually, control can be achieved with medication. However, many times recovery occurs with no medical intervention.

Factors that may cause epilepsy include congenital brain defects, disruptions of intrauterine life, perinatal brain injury, infections, trauma, metabolic and nutritional disturbances, tumors, degenerative diseases, and genetic disorders. The incidence of epilepsy is quite high. It is estimated that thirty percent of children under age eighteen have epilepsy.

Anticonvulsant drugs are given alone or in combination to help control seizures. In most cases, drugs can control seizures well enough that the individual can lead a normal life. Long term use of some anticonvulsant drugs is known to affect the metabolism of certain nutrients and to put one at high risk for deficiencies of folic acid, vitamin D and calcium. For this reason, physician

prescribed supplementation of these nutrients is usually necessary.

In some very hard to control cases of epilepsy, a ketogenic diet or even brain surgery may be tried. A ketogenic diet is a precisely calculated meal plan, low in carbohydrate and high in fat content, which results in the accumulation of ketone bodies in the blood and urine (ketosis). Usually children under eight years old benefit from the ketogenic diet most, especially if it is followed for about six months. The diet is inadequate in B-complex vitamins, iron, calcium and vitamin D. The diet must be supplemented with vitamins, iron and calcium. A registered dietitian should follow and monitor the progress of the diet.

### *Growth Trends:*

- Poor weight gain and short stature when diet not adequate

### *Physical Problems affecting Feeding:*

- Long-term use of phenytoin sodium may cause dental problems, which can cause painful chewing and delays in feeding progression

### *Nutrition and Feeding Concerns:*

- Poor appetite caused by medication use
- Nutritional imbalances caused by medication use
- Physician-prescribed supplementation of certain nutrients based on long-term medication use
- Physician-prescribed ketogenic diets (increased fats, decreased carbohydrates) require careful planning and monitoring by a registered dietitian and is sometimes effective in severe cases when all else fails.

## Spina Bifida

Spina Bifida, also known as *myelomeningocele*, is a birth defect of the backbone (spinal column), often called "open spine." Every unborn infant's spine is open when it first forms, but normally it closes early in the mother's pregnancy. In Spina Bifida, the backbone never closes completely, and the membranes may pouch out at some point along the back. Children with this condition may have hydrocephalus and depending on the location of the defect along the backbone, lack of control of the leg muscles, lack of bowel and bladder control, lack of sensation in the skin, and/or curvature of the spine (scoliosis).

Spina Bifida is one of the most common developmental defects of the nervous system. The incidence is about one in every 1,000 births. The chance of having a second child with this condition depends upon family history.

At present there is no method to prevent the defect or treat the affected baby before birth. When the defect is so slight that it is hardly noticed, no treatment is needed. If there is a lump but no leg paralysis or loss of feeling, doctors can operate to prevent damage. When a baby is born with a severe form of Spina Bifida, it usually is operated on at once. Some children may be able to walk depending on the level of the lesion. Of those who walk, some require braces and crutches. Many young children who walk with adaptive equipment may require a wheel chair by adolescence. A physical therapist works with the family on exercises to develop muscle tone and provides advice on positioning and handling the child. If the child develops hydrocephalus, fluid can be

drained from the brain to prevent brain damage.

Because children with Spina Bifida are less active than normal children, they are prone to obesity. Excess weight can especially be a problem for these children, as it can impede walking and contribute to the development of pressure sores. Extra fluids are usually necessary because of a high susceptibility to urinary tract infections. Sometimes dietary measures are taken to maintain an acidic urine, and/or antibacterial agents are prescribed. These children may also have problems with constipation due to neurological problems in the gastrointestinal system. Medications are usually necessary to correct the problem.

### *Growth Trends:*

- Height will vary according to location of defect on the spinal column
- Increased weight gain; obesity (lower calorie needs due to low activity)

### *Physical Problems affecting Feeding:*

- An Arnold Chiari defect is commonly associated with Spina Bifida. The defect is linked to feeding and swallowing difficulties in some children.

### *Nutrition and Feeding Concerns:*

- Appropriate calories, avoiding over consumption.
- Increasing fluids for frequent urinary tract infections.
- Dietary modifications for frequent urinary tract infections.
- High fiber diet and/or stool softeners for constipation.

## **Prader-Willi Syndrome**

*Prader-Willi Syndrome PWS* is a complex multi-system disorder including mental retardation, extreme obesity, almond-shaped eyes and short stature. Other characteristics include small hands, feet and underdeveloped or small genitals.

Hypotonia is usually seen during infancy with some improvement thereafter. A major characteristic of this hypotonia is a weak cry and poor sucking reflex. Initially failure to thrive may occur due to this feeding problem; however, between the age of one to four years, the child begins to eat large amounts of food. There is no feeling of satiety (the appetite mechanism) and extreme obesity is usually a major problem during childhood and adolescence. This obesity problem will continue into adulthood if food intake is not regulated. Because of the obesity, children are at an increased risk of developing non-insulin-dependent diabetes, high blood pressure and cardiovascular disease. Life expectancy is shortened due to cardiovascular and/or pulmonary complications.

The cause of this syndrome remains unclear. However, some children with PWS have a small deletion of chromosome-15. PWS remains under diagnosed and under treated. The incidence is estimated to be between one per 5,000 and one per 25,000 live births.

When food is restricted, the child may develop behavioral problems, such as binge eating, temper tantrums, and food stealing. These behavioral problems often overlap into areas of self-care. Early intervention to prevent obesity seems to improve the child's physical abilities. Monitoring of food intake by all caregivers is essential to help control obesity as well as behavioral problems.

Nutrition screening is the way professionals can determine which children and adults either run the risk or are at risk of problems due to poor nutrition. The ultimate goal of screening is to make parents and caregivers aware of problems and offer suggestions to improve them.

Nutritional disorders and poor nutritional status are common in people with disabilities and chronic illnesses. Since nutrition problems can seriously affect the course of an illness or disability, nutrition screening is an important component of overall health care. It should be performed routinely on all children and adults with developmental disabilities and chronic illnesses.

When an individual is identified as having one or more nutritional risk factors, he needs to be referred to a registered dietitian for a nutrition assessment. Whereas nutrition screening is general in nature, a nutrition assessment is a detailed examination of all factors that may affect nutritional status. A nutrition assessment rules out or confirms a suspected problem. It also provides an intervention plan or suggestions to correct the nutritional problem.

### *Growth Trends:*

- Short Stature Obesity (lower calorie needs due to syndrome)

### *Physical Problems Affecting Feeding:*

- Difficulty in sucking (infancy)
- Impaired satiety mechanism with extreme hyperphagia (begins one to four years)
- Behavioral problems related to food
- Dental caries



### *Nutrition and Feeding Concerns:*

- Monitor all food intake due to food stealing and gorging
- Keep food storage areas locked
- Keep trash containers locked due to pica behavior (eating nonfood items)
- Inform school personnel and neighbors about need to restrict/monitor food
- May need vitamin supplement with calorie-restricted diet

## **Nutrition Screening**

Nutrition screening consists of the collection of information in one or more of the following categories: anthropometric (body measurements), dietary, socioeconomic, developmental (related to feeding skills), and behavioral (related to feeding). To be effective, nutrition screening does not have to include all the categories or even all the information and points within a category. The important thing is that screening is done routinely on all children and adults with developmental disabilities. Collection of information should take 15-20 minutes and can be done successfully by many individuals: parents, paraprofessionals, occupational therapists, physical therapists, speech therapists, nurses, nurse practitioners, social workers, physician's assistants, physicians, and registered dietitians.

## **Nutrition Assessment**

Nutrition assessment, which should be done by a registered dietitian, consists of the collection and evaluation of information in seven categories: anthropometric, clinical, biochemical, dietary, socioeconomic, developmental, and behavioral. A thorough nutrition assessment typically takes about

60-90 minutes. Additional time may be necessary to analyze the information collected. Emphasis should be placed on any categories in which risk factors have been identified through nutrition screening. An important part of the nutrition assessment is an evaluation of the development of sensorimotor skills necessary for feeding and communication.

If the nutrition assessment confirms the existence of a nutrition problem or concern, intervention should be provided by a registered dietitian with specialized training in developmental disabilities. Planning and providing nutrition intervention for persons with developmental disabilities or chronic illness is complex because many factors interact to affect the nutritional status of these individuals. The best nutrition care many times requires work with a multi-disciplinary team of medical professionals.

## **Nutrition Screening Activities**

*Measure and plot on standard growth chart:*

Height or length for age  
Weight for age  
Weight for height (or length)  
Head circumference (under three years)

Compare current measurements to reference data and to previous measurements that are available.

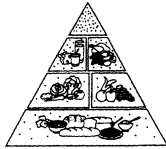
## Dietary:

*Caregiver(s) may be asked about typical feeding patterns:*

- Types of foods eaten and how often
- Types and amounts of fluids consumed including water
- Concerns about food intake or nutritional status

Compare intake of food to the minimum number of recommended servings for each age group.

These servings are listed in the Nutrition Section of this book. Also compare the amount of fluids consumed with the recommended level presented in this chapter.



## Intervention for Underweight Children and Adults

### Calories –Tips for increasing calories.

Boost calories by adding:

- ☞ Non-fat dried milk powder to milk, soups, casseroles, sauces
- ☞ Gravies and sauces to meat and vegetables
- ☞ Melted, grated, or sliced cheese to sandwiches, vegetables, casseroles, cream soup
- ☞ Chopped hard-cooked eggs to salads, dressings, casseroles, vegetables
- ☞ Butter/margarine to soup, potatoes, hot cereals, vegetables, rice, noodles
- ☞ Mayonnaise to sandwiches, sauces, salad dressings
- ☞ Offer planned snacks between meals

- ☞ Modify consistency of fluids for better acceptance
- ☞ Modify textures for better acceptance

## Intervention for Overweight Children and Adults

- ☞ Encourage intake of fresh fruits in place of sweet desserts
- ☞ Emphasize intake of adequate amounts of a variety of foods
- ☞ Recommend a regular meal pattern consisting of three meals each day and planned snacks

## Fluids

An additional risk for persons with developmental disabilities is dehydration. *Water is essential for life.* Water is one of the most important nutrients. About 60 percent of body weight is water and it works in several important ways. Water helps to start the process of digestion by softening food in the mouth. Waste products are removed from the body by water and it helps to regulate body temperature. During these processes, water is lost from the body and needs to be replaced. Dehydration may occur if a person does not take in enough water each day to replace these losses. Serious medical problems may then result.

Children and adults with developmental disabilities are at risk for dehydration due to the oral-motor problems associated with the specific syndromes. Some of these problems include poor sucking and swallowing, heavy drooling and the inability to communicate thirst. Other problems that may lead to dehydration are fever, diarrhea and vomiting. Some medications also increase the need for water.

Signs of dehydration to watch for are:

- ✓dry mouth, tongue and lips
- ✓increased body temperature
- ✓not wetting the usual number of diapers
- ✓flushed skin
- ✓thirst

Thirst is not a very reliable indication of fluid needs even in a person who can communicate thirst. If any of these signs of dehydration appear, a physician should be contacted.

As a guide to use when screening for nutritional risk, the following amounts of fluids are needed each day. These recommendations are based on weight and a non-stressed or healthy medical status.

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**Recommended Amounts of Daily Fluids:**  
(These recommendations are not appropriate for infants from 0 to 1 year.)

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Child's Weight	Total fluids needed in a 24 hour period
7 lbs.	2 cups
12 lbs.	3 1/3 cups
21 lbs.	5 cups
26 lbs.	6 cups
36 lbs.	7 cups
44 lbs.	8 cups
63 lbs.	9 ½ cups
99 lbs.	10 ½ cups
119 lbs.	10 ½ cups

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Under the same condition of good health adults need an average of eight 8-ounce glasses of fluid each day. When adding up

the amount of fluids consumed, remember to count foods that become liquid at room temperature.

**If an individual is not consuming enough fluids each day, try to increase the amount consumed by following these suggestions:** (These recommendations are not appropriate for infants from 0 to 1 year)

- Offer small, frequent sips of fluids such as water, juice and milk.
- Encourage foods that become liquid at room temperature such as:
  - ☐ Jell-O
  - ☐ Ice cream/sherbet
  - ☐ Popsicles
  - ☐ Fruit slushes
  - ☐ Malts/shakes
- Offer foods containing a high amount of fluid:
  - ◇ Commercially prepared baby foods
  - ◇ Cottage cheese
  - ◇ Yogurt
  - ◇ Custard
  - ◇ Pudding
  - ◇ Soups
  - ◇ Fruits and vegetables (canned, frozen, fresh, cooked or raw)

## **Behavioral factors which contribute to children's eating difficulties**

For most children and adults, the process of eating and drinking results in two positive outcomes: (1) we enjoy the tastes of the solids and liquids we are consuming, and (2) consumption of those solids and liquids temporarily eliminates the gnawing feeling of discomfort we feel when we are hungry. Thus, most of us have learned that the consumption of various foods and liquids is a positive experience which we continue to engage in frequently (too frequent for some of us!). However, for some children, the consumption of food is not a pleasant experience. In fact some children find eating to be so unpleasant that they refuse to eat certain foods or, in some cases, all foods.

Although this behavior appears to be somewhat unusual to those of us who enjoy eating, there are typically several explanations for children's poor eating habits. The first and foremost explanation focuses on organic, or medical, conditions which make it difficult for a child to chew, swallow or digest food. It is critical that these factors be thoroughly explored and treated before additional treatment avenues are considered. The treatment of various medical conditions typically resolves feeding difficulties for many children. However, feeding difficulties often persist for some children, even though they have received a clean bill of health from their physician. These children sometimes require behavioral intervention to help improve their eating habits.

Prior to behavioral intervention, an assessment of the variables maintaining a child's feeding difficulties is conducted. Although there are many explanations for the behavioral maintenance of feeding difficulties, two factors seem to play an important role.

### **Avoidance Behavior**

The first, and perhaps most common, factor is the development of what is referred to as "*avoidance behaviors*." For the most part, avoidance behaviors are necessary, adaptive behaviors which are needed to help us function in our daily lives and, in some cases, to survive. Avoidance behaviors include testing the water before jumping in a pool, stopping at a red traffic light, keeping our hands away from a hot stove, dressing warmly during a winter storm, etc. We have learned, either through direct personal experience or from watching others, that engaging in these behaviors will help us avoid something unpleasant (i.e. cold water, traffic accident, burned hands, cold air).

Many children experiencing feeding difficulties have developed learned, avoidance behaviors. Although some (eating-related) avoidance behaviors should be encouraged (e.g. children telling us when they are full), many avoidance behaviors interfere with the feeding of some children. These children might demonstrate avoidance behaviors such as screaming, kicking, yelling, and throwing objects at the sight of food, a high chair, or the child's parents. Other avoidance behaviors might include batting food away, turning the head away from food, spitting out food, vomiting, etc. These behaviors occur even though the child may not have eaten for several hours or even

days. The development of these behaviors is complicated, but often is related to a previous health problem or feeding practice. For example, children who experience pain when they swallow food might quickly learn to vomit, or push food away to avoid additional pain. If this behavior is successful in helping them to avoid pain, they will likely continue to emit that behavior. Once the physical condition causing the initial pain has been successfully treated, the child will likely continue to push food away or vomit swallowed food, primarily because the child has not learned that swallowing will no longer result in the pain that the child had previously experienced. Another example of an avoidance behavior might be a child who learns to spit out foods he doesn't like. If the parent reinforces this behavior by no longer serving the foods the child dislikes and only serving preferred foods, the child will likely continue to spit out foods he doesn't like.

### **Behavioral Reinforcement**

Another factor that sometimes contributes to feeding difficulties is positive reinforcement. Positive reinforcement refers to the presentation of a valued object or event (e.g. parental praise) following a behavior (e.g. eating) that will increase the rate or the probability that the particular behavior (eating) will occur in the future. Examples of positive reinforcements include praise, gestures of approval, toys, food, etc. Although positive reinforcement is typically used to increase appropriate behavior, it can also serve to increase inappropriate behavior. For example, some children who diligently eat their meals might receive little attention from their parent(s). However, tossing a spoonful of potatoes across the

room or spitting out some carrots quickly gets their parent's attention. Although the parent's reaction to this behavior would likely be viewed by us as less than positive it might be viewed as preferable to the child, especially if it's the only form of attention the child receives from his parents (i.e. the parents spend more time attending to inappropriate behavior than appropriate behavior).

### **Phases of Treatment**

Behavioral treatment of children's feeding difficulties is part of a multi-disciplinary treatment effort and begins only after the child has been thoroughly examined by a physician, and all organic causes have either been treated or ruled out. Behavioral treatment is conducted in four phases. During phase one, an assessment is conducted to identify those variables that are contributing to a child's feeding problems. Phase two includes use of the assessment data to develop a treatment protocol. Phase three includes the long-term implementation of the treatment protocol, and training of parents and other caretakers to use the protocol. The final phase includes transfer of the treatment protocol to the child's natural environment and providing follow-up care.

Although many treatment approaches have been reported in the professional literature, the most effective treatment protocols have been multi-component treatment packages. These packages typically include approaches that (a) help children to work through their avoidance behaviors (i.e., teach them that their previous behaviors will no longer be affective in helping them to avoid eating), (b) positively reinforce desirable eating

behaviors and provide extensive training to parents and other caregivers regarding the most effective methods of feeding their child. Every treatment approach is designed to meet the specific needs of each child. The intensive phase of treatment can last anywhere from several days to several months depending on the type and severity of the feeding problem. Once an effective treatment program has been developed and the child's feeding difficulties improve, parents and other caretakers are systematically trained in the use of the treatment. The child and his family will then be followed during a "maintenance phase" in which the child's progress is monitored and the treatment protocol fine-tuned as needed.

In general, it is important to remember that eating is a learned behavior and like other learned behaviors (e.g. dressing, driving a car, reading), it is amenable to change. A thorough assessment and carefully designed treatment program can lead to significant improvements in children's feeding behaviors as well as other areas of their lives.

## Eating Difficulties

Eating is not a simple task. A great deal of facial muscle coordination and coordination of breathing and swallowing is needed while eating. Eating requires many processes. First the mouth must open, lips adjusted to collect the food and then chewing or mouth movements needs to take place. Food is formed into a mass called a bolus. This bolus of food must move to the back of the throat for swallowing. Because eating is so

complicated, children may have some difficulties.

An eating problem can be defined as the inability or refusal to eat. These problems may occur as a result of a structural defect, a neurological impairment or a gastrointestinal dysfunction. An eating problem may develop as a result of a behavioral, psychological or emotional problem.

### Feeding problems may occur due to:

- ☐ Use of non-oral feedings for a long period of time
- ☐ Neurological problems
- ☐ Use of special diets
- ☐ Caregivers and parents keeping the child on an infant level of feeding practices
- ☐ An obstructive lesion which interferes with eating

### Signs to look for that may indicate an eating problem:

- ☐ Difficulty in sucking, swallowing or chewing
- ☐ Drooling excessively
- ☐ Pushing food out of the mouth with the tongue
- ☐ Gagging or vomiting
- ☐ Refusing to tolerate a spoon or cup near the mouth
- ☐ Refusing to take liquid from a cup
- ☐ Refusing lumpy foods
- ☐ Inappropriate eating positions
- ☐ Other inappropriate mealtime behaviors

Structural abnormalities such as overbite, underbite, cleft lip and/or palate, gum swelling, etc. may be exhibited by:

- ❑ The jaw opening suddenly with force
- ❑ Will not or can not bring lips together to remove food from a spoon or pull liquid from a cup
- ❑ Forceful protrusion of the tongue from the mouth; thus, making it difficult to insert a nipple or spoon
- ❑ A bite reflex that will cause the jaw to move upward into a clenched position when the teeth are stimulated by a spoon or other object

The way a child is positioned for eating can greatly affect the way a child is able to eat. Be sure to give support to the neck, spine, shoulder and pelvic area. Several positions are suitable for an infant, but if the infant has any difficulties with muscle tone, or reflexes that interfere with eating, face-to-face positions may hold a possible advantage to cradling the infant in your arms. A high chair is appropriate if a child is large enough and has sufficient neck and pelvis control. The feet need to be positioned flat on a footrest and the hips should be stabilized with a safety strap.

If a child is fed entirely through a gastrostomy tube, he or she may become hypersensitive to things being placed in and near the mouth. Objects placed in the mouth may seem unpleasant or be uncomfortable to the child who has no oral stimulation.

Different food textures are recommended for different stages.

- ◆ Pureed foods are defined as having a semi solid consistency with high water content and low calorie density. No lumps in the mixture. An example of a puree is applesauce. Purees are used as a step between liquids and solid foods.

- ◆ Junior foods are defined as having a semi solid consistency with small lumps at a ratio of 1:3. Junior foods are used to increase tolerance to solid foods.
- ◆ Ground foods are foods that have been processed in a grinder, food processor or blender without extra liquids added. Ground foods are used for children not showing chewing abilities.
- ◆ Finely chopped foods are foods that are cut to approximately 1/4 of an inch. Finely chopped foods are recommended for children with some chewing abilities and who can use their tongue appropriately in the chewing process.
- ◆ Regular table foods are used for children with normal chewing and swallowing abilities.

Specific eating and swallowing problems should be noted and caregivers should inform parents if a child shows any of the following:

- ✓ Child chokes, coughs or gulps when eating or immediately after eating.
- ✓ Food remains in the mouth after the child has swallowed.
- ✓ The child has difficulty initiating a swallow.
- ✓ The child seems to need to swallow repeatedly to clear food out of the mouth.
- ✓ Large amounts of secretions that build up during or shortly after feeding.

## **Movement of food through the GI tract**

The primary function of the alimentary tract is to provide the body with a continual supply of water, electrolytes and nutrients. In order for this to happen, food must pass through the gastrointestinal (GI) tract for digestion and absorption.

The amount of food a person ingests is determined by "hunger" and the type of food he or she seeks is determined by the "appetite." "Satiety" means a feeling of fulfillment. These mechanisms are important for maintaining an adequate nutritional supply for the body. Diseases or abnormal functioning of the brain may affect any of these aspects of a person's diet.

The teeth are designed for chewing and function with the jaw muscles to break up food particles. Chewing food into small pieces is needed because digestive enzymes act only on the surface of the food. In addition, chewing prevents irritation of the GI tract from whole food items and allows them to be more easily moved from one place to another.

Swallowing is a complex mechanism that consists of voluntary and involuntary stages. The tongue movement of food into the back of the throat is voluntary and from there on becomes involuntary or automatic. Normally the opening to the lungs (*trachea*) closes before the *esophagus* opens and in approximately ten seconds contractions in the esophagus move the food into the stomach.

The gastroesophageal sphincter, located at the base of the esophagus, has the principal function of preventing reflux of stomach contents into the esophagus. In some instances this sphincter does not function effectively and acidic stomach contents may damage the esophagus lining.

The stomach stores large quantities of food, mixes it with gastric secretions, and slowly empties the mixture into the small intestine. Hydrochloric acid and protein digesting enzymes secreted in the stomach assist in breaking down the food particles.

The small intestine has the primary function of digestion and absorption of the essential nutrients needed for proper growth and development. Peristaltic waves mix the food with digestive enzymes from the pancreas and bile from the liver to complete the breakdown of food into a form which can be absorbed into the blood stream.

Contractions in the small intestine move the by-products of digestion through the ileocecal valve into the large intestine or colon. Although 90% of the body's water and electrolytes are absorbed in the small intestine, the colon completes the process and stores the stool until it can be expelled. Mucus is secreted in the large intestine with the function of holding the fecal matter together. The movements in this area are sluggish. Mass propulsions, usually occurring 15 minutes after breakfast, fill the rectum where the sensation to defecate is stimulated.

Passing a stool can be a totally involuntary reflex, as in an infant, but voluntary suppression of the defecation reflex can be



learned. Contraction of the abdominal muscles to force the stool into the rectum will elicit new reflexes to pass the stool.

### **Gastroesophageal Reflux**

*Gastroesophageal reflux* (GER) ) occurs when acidic stomach contents are present in the esophagus. Obvious symptoms of *GER* include excessive salivation, a burning sensation of pain and difficulty swallowing. In infants or individuals with handicaps the symptoms are less obvious. Irritability, feeding refusal with failure to thrive, excessive swallowing, peculiar posturing and recurrent respiratory tract infections may be seen. The cause of reflux may include one or more of the following: a weakened lower esophageal sphincter, a large volume of gastric contents, poor stomach emptying, feeding intolerance, excessive acid production and poor GI motility.

The diagnostic evaluation often includes x-rays, endoscopy and pH monitoring. A barium x-ray of the esophagus may show reflux in severe cases. Upper endoscopy provides a direct view of the stomach and esophagus. This visual examination may reveal inflammation, ulceration, or stricture. Biopsies of these areas will show characteristic changes of *GER* at the cellular level. Prolonged (24 hour) esophageal pH monitoring reveals information on the frequency of reflux and acidity level associated with various activities such as eating or sleeping.

Treatment of *GER* may include both medical and surgical therapy. Simple maneuvers such as maintaining an upright position of at

least 30 degrees after meals and while sleeping and eating smaller volumes more frequently are essential. Dietary changes to a lower fat diet, which facilitates gastric emptying, and avoidance of stimulants (i.e. caffeine), which reduce the lower esophageal sphincter pressure, are helpful. Medication therapy with agents that strengthen the lower esophageal sphincter, neutralize acid, and improve gastric emptying are frequently used. Surgical treatment may be required in more severe cases. An anti-reflux operation known as a fundoplication creates a high pressure zone at the top of the stomach to prevent gastric contents from entering the esophagus. In the majority of cases, a gastrostomy tube/button is also inserted to avoid overfilling the stomach with air or formula after surgery.

### **Constipation**

Constipation is a symptom, not a disease. A wide range of normalcy exists regarding normal stool size, consistency, frequency and ease in passing. This variance leads to difficulty in defining the term. The major defining characteristics include a decreased frequency of stooling (normal variation from three times a day to three times a week), stools with hard, dry consistency, straining and pain upon defecation, and abdominal bloating.

The causes of constipation may be due to anatomical or functional disorders. Anatomical defects include obstructions in the bowel, lack of innervation (i.e. Hirschsprung's Disease) and metabolic disorders (i.e.. hypothyroidism). Functional causes relate to the absence of anatomical or pathological disorders. In this case,

constipation occurs due to poor dietary or bowel habits. An intact nervous system is essential to maintain normal defecation. Persons with central neurological disorders, such as cerebral palsy, are prone to constipation due to delayed or sluggish movements in the bowel.

Diagnosis is primarily made by the history of stooling patterns. Occasionally, barium x-rays and colonoscopy may be performed to exclude anatomical or other pathological reasons for constipation. A rectal suction biopsy is a procedure which may be performed to exclude Hirschsprung's disease.

Treatment of constipation may include dietary interventions to increase the insoluble fiber content in ingested food. Because fiber works by absorbing water and therefore making the stool softer and more bulky, an increase in liquid is also necessary. Establishing proper bowel habits may require retraining the individual to respond to the normal "urge" to pass a stool. Proper positioning with knees and hips at 90° angles is important. Stools or assistive devices may be required under a person's feet to assist with this. Daily exercise simulates the colon to move fecal matter into the rectum. Some medications are constipating and may need to be changed.

If the rectum is chronically overstretched from constipation, it can no longer respond to signals indicating the need to evacuate. In these cases, medication therapy using laxatives may be required to facilitate passing a stool. Stimulant laxatives are used on a short-term basis only as they may be habit forming and actually damage the colon.

## **Diarrhea**

Diarrhea most often represents a change in the bowel pattern to include a looser consistency and increased frequency of stool passage. This stooling may be effortless or explosive and often is painful due to abdominal cramping.

Acute diarrheal episodes are potentially serious as they can rapidly lead to dehydration, especially in an infant. Signs of dehydration include sunken fontanelles or eyes, dry lips and a decreased number of wet diapers. If you note any of these signs, a physician should be contacted.

The causes of acute diarrhea are most often infectious and include a wide variety of bacteria (salmonella or shigella), viruses (rotavirus) or parasites (amebiasis or giardiasis). These stools are watery, foul smelling and may contain small amounts of blood. Acute diarrhea is often self-limiting and treated only with dietary modifications. In some instances an antibiotic may be required.

Chronic diarrhea occurs when diarrheal stools last longer than two weeks. Causes include allergic reactions such as milk and soy protein intolerance, inflammatory states such as Crohn's disease or ulcerative colitis, anatomic causes such as short bowel syndrome and tumors. Chronic diarrhea is of concern when it affects the child's growth and development. There are many different treatments for these conditions, so a thorough medical examination is important.

Chronic diarrhea in a toddler which does affect normal growth and development and is characterized by watery stools with

obvious food particles is known as irritable colon of childhood. This condition is most often treated by a dietary modification to a low carbohydrate, high-fat diet.

Children receiving tube feedings have diarrhea when they are fed too fast or fed cold formula. Feedings of room temperature formula should be given over at least 15 minutes.

Diarrheal stools can be irritating to the skin, so after stooling the area should be thoroughly cleansed with warm water. There are numerous products available to act as barriers for the prevention or treatment of excoriated areas. Leaving an irritated area open for air drying or using the cool setting on a hair dryer may help heal the area. Hand washing is extremely important when caring for someone with diarrhea of an unknown origin as many infections are transmitted by contact with the stools.

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### **Acknowledgments**

Appreciation is extended to the following individuals  
that allowed their material to be used in this chapter

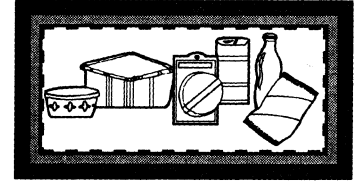
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# CHILDREN WITH SPECIAL NEEDS QUIZ



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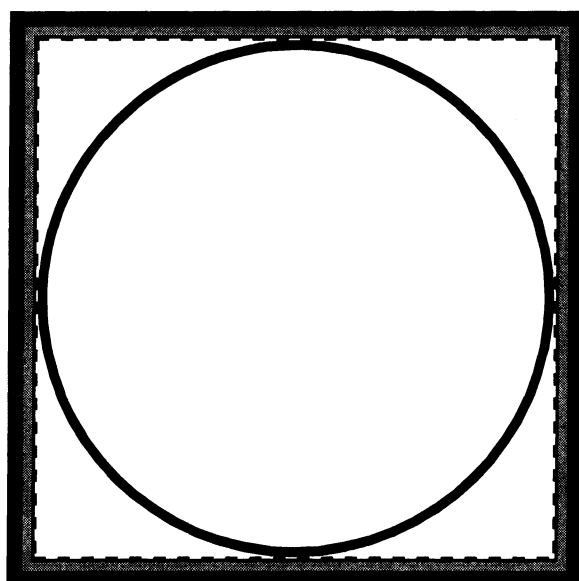
**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

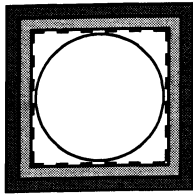
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1. Constipation is a symptom, not a disease.  
T. True  
F. False
2. Gastroesophageal reflux occurs when acidic stomach contents are present in the  
A. Stomach  
B. Intestines  
C. Both A and B  
D. neither A nor B
3. Gastroesophageal reflux may require both medical and surgical therapy  
A. True  
B. False
4. Children receiving tube feedings have diarrhea when they are fed too fast or fed cold  
A. True  
B. False
5. Thirst is a good indication of fluid needs.  
A. True  
B. False
6. Eating is a learned behavior.  
A. True  
B. False

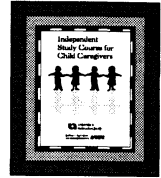
# **Section 11**

## **Guidance and Discipline**





# Guidance and Discipline



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*By completing this study child caregivers will:*

- ➡ *Learn the difference between punishment and discipline*
  - ➡ *Learn the value of positive discipline*
  - ➡ *Learn to create a positive climate and become an appropriate role model*
  - ➡ *Learn how to develop a more effective relationship with children*
  - ➡ *Learn to guide a child's behavior by using positive discipline techniques*
- 
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- ☐ Effective child caregiving doesn't just happen! Through education, personal commitment, and a willingness to take a fresh look at existing attitudes and actions, caregivers can improve their skills, become better organized and more effective, and make their day-to-day experience of caregiving more pleasant.
- ☐ This self-study chapter is designed for today's child caregivers who are seeking information about guiding or disciplining children's behavior. It is also for those who want to find effective ways to develop more positive and satisfying caregiver-child relationships.
- ☐ The course should not be viewed as giving "solutions" to all caregiving problems. Rather, it seeks to help the reader understand the dynamics involved in problem situations. The examples are intended to assist in formulating an acceptable strategy for guiding behavior. Readers are encouraged to reflect on their own experiences as they relate to the material presented to make it meaningful to them.

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## Philosophy of Positive Discipline and Guidance

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There is no magic formula that will answer all your questions about guiding and disciplining children. Nor is there one perfect way to discipline. No method is going to work with every child or in every situation. What we can do, however, is to commit ourselves to a positive approach in our discipline . . . one that includes respect, clearly defined expectations, setting limits, and using reasonable consequences.

A positive approach to discipline helps adults and children work together rather than against each other. It preserves a child's dignity and self-esteem while encouraging cooperative, positive, and loving relationships. Mutual respect and cooperation help children develop confidence and a strong self image.

The purpose of positive discipline and guidance is to teach in such a way that children can develop their **inner** guidance system. Children then will function responsibly by themselves rather than depend on an **outer** guidance system (adult control or punishment) to direct their actions. Because adults will not always be around to tell children what to do, we must instill an **inner** discipline and help children develop the ability to think, judge, and make decisions on their own. First, children need to learn self-discipline by confronting small problems. Then they will have the experience and confidence to deal with larger issues.

The short-term goal of discipline is to guide behavior on a daily basis and to protect children from hurting themselves and others. The long-term goal of discipline is for the

child to learn the traits you want him or her to possess as a teen or an adult (i.e. happy, self confident, self-disciplined, loving, trustworthy, independent, capable of making wise decisions, able and willing to take responsibility for their actions, etc.). How does one help children develop these traits? It helps to keep these goals in mind each time you correct, teach, or encourage children.

As you think more about this concept of setting goals, you are going to discover that many caregiving habits promote short-term but not long-term goals. Don't despair. It takes effort and commitment. This process takes time, but the end product (a confident, happy child) is worth the investment!

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## Positive Approach to Guiding and Disciplining Young Children

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Is there a difference between **discipline** and **punishment**? **Yes!!** In its original form, **discipline** meant to teach or to learn--not to punish. The root word of discipline is **disciple**--a person who **leads** others in the way they should go. To discipline is to lead or guide behavior. **Discipline** helps a child learn to act according to what is right and wrong, not just to avoid punishment. For example, a child should be honest because the child believes it is wrong to be dishonest, not out of fear of getting caught. Hopefully we can instill this principle!

Anyone involved with children knows they usually stop misbehaving when punished--at least for a while. **Punishment** is something you do to, or take away from, a child for unacceptable behavior. It establishes external controls for a child's behavior, but it does not encourage the development of self-discipline.

The underlying message in punishment is, "You either do what I say, or else you'll pay."

There are basically four kinds of punishment: (1) physical punishment--slapping, spanking, switching, paddling, using a belt or hair brush, and so on; (2) punishment with words--shaming, ridiculing, or using cruel words; (3) holding back rewards--example: "You can't \_\_\_\_\_ if the toys aren't picked up."; and (4) penalizing the child--example: "Because you told a lie you can't play with the toys."

Physical punishment and punishment with words are **not** acceptable discipline methods. Physical punishment can make children dislike themselves and others. Some may tend to feel once they've been punished they have paid for their misbehavior and are now free to misbehave again. Using harsh words and ridicule are ineffective in preventing or correcting misbehavior. Repeated verbal punishment damages or destroys a child's self-esteem.

In most cases, the need for punishment is the result of too little guidance. The more effective you are at encouraging good behavior, the less you will have to rely on correcting inappropriate behavior. Children often believe it is their behavior that got them into trouble. However, it usually is the choice they make that creates the problem. Positive guidance works best because it teaches the skill and importance of making good choices. Helping children correct their behavior means giving feedback about the choices they make, discussing why their choices are important, and teaching them how to do it better next time.

The use of discipline is a thinking and trying process. Remember that:

- ☞ Effective discipline is good for both caregiver and child.
- ☞ A child learns to take responsibility for his or her behavior.
- ☞ The caregiver keeps a warm relationship with the child.
- ☞ The goal is to teach the child how to behave, not to make the child suffer.

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## Why Children Misbehave

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Understanding why children misbehave is important. We can respond more effectively to them and their behavior when we know what the problem is.

- Children misbehave when they don't feel well. A tired child can be a cranky child. A hungry child is irritable. A sleepy child becomes fussy. A sick child can be cross. Children need plenty of sleep, nutritious food, exercise, and fresh air. When they don't get these things, they are often hard to get along with.
- Children misbehave when they feel rejected. Children who feel unloved and unwanted can become resentful, moody, and ill-behaved. When children's thoughts and feelings are ignored, they tend to think of themselves as unworthy.
- Children misbehave when they lack knowledge and experience. Children are not little adults. They don't come ready-equipped with information and wisdom. Mistakes and misbehavior are normal. Many actions that adults call "bad" are simply mistakes. These mistakes only need to be talked over and explained.



- Children misbehave when they are upset and feel insecure. Children need attention and the security it provides. Change causes upset. It is helpful for a caregiver to know when a new baby arrives or when there are other changes within a family because children are much more likely to misbehave at this time.
- Children misbehave when they are discouraged. Children feel discouraged if they don't hear praise for the good and positive things they do. They may misbehave to get the attention and closeness of caring adults that they need.
- Children misbehave when they feel unloved. Children want to please those who love them. Without a loving relationship, children have no reason to behave in acceptable ways--except to avoid punishment. It is not enough simply to love the children. That love needs to be demonstrated.
- Children misbehave when they lack confidence. Feelings of inadequacy may cause children to brag, boast, or fight. Or, they may be unwilling to try new things and withdraw. "Put downs" make children feel worthless; encouraging words help children feel confident.

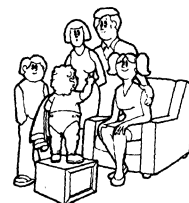
## **Ways to Prevent Misbehavior**

Caregivers can use the following strategies and techniques to prevent children's misbehavior:

- Change the setting. Put dangerous items, breakables, and valuables out of the reach of infants and toddlers. For preschoolers,

have places to play that are safe and worry-free.

- Provide interesting playthings. Playthings can prevent boredom and misbehavior. They need not be expensive or store bought.
- Make clear rules. The fewer rules you make, the better. They should be age-appropriate, reasonable, and enforced consistently.
- Be flexible. There are times when rules may need to be relaxed. Rules need to change as the child grows in ability and responsibility.
- Set a good example. Children imitate those around them. They learn what they live.
- Give choices. When you can, give children a choice of several things.
- Get children's attention. Say the their name, touch them, and look them in the eye before you talk to children or give them instructions.
- Give warning time. Tell children five to ten minutes ahead of time that you want to change their activity. Let them get ready to go on to something new.
- Spend time with the children. Children need undivided, personal attention regularly from caring adults.



## Positive Discipline Strategies

Motivating a child to cooperate is a key to effective discipline. When our relationship with a child is a series of power struggles, the adult is bound to lose. We want children to have a clear understanding of what is expected of them. To accomplish this goal, we don't have to humiliate or harm children's self-esteem nor their body. We can guide children with love and firmness toward the goal of self-discipline and stable self-esteem. Here are a few positive discipline strategies to try.

- Use the power of the positive. Positive statements tell a child what to do rather than what not to do, and they promote a more positive environment for learning and nurturing self-esteem. For example, "Walk around the mud so we don't have to clean your shoes." Given half a chance, children want to please us. By using encouragement as an incentive for behaving appropriately, we can build a child's positive self-image and sense of individuality because we are placing the power in their hands.
- Hold a positive expectation. Children are very sensitive to our attitudes about them. If you perceive a child as responsible and cooperative, you unconsciously give them more opportunities to demonstrate their competence and develop a sense of responsibility. The more trust and confidence you place in a child, the more the child learns that they are worthy of trust, and, in turn, the more trustworthy they become.
- Give directions in a positive way. "Watch what you do with the sand" is not enough information for a child. A child can follow your directions and still dump sand on the grass or sidewalk, which probably isn't what you had in mind. "Please keep the sand in the sandbox," tells what to do with the sand. It becomes a request, not an order.
- Say "Yes" whenever possible. Sometimes, children want something they cannot have at the moment. Instead of saying, "No, you may not have a cookie," try, "Yes, you may have a cookie right after lunch." Then the child knows the wish is acceptable, but the timing is wrong.
- Avoid saying "No" or "Don't". A good rule of thumb is to save your "no's" for important situations so the child takes "no" seriously. Here are some ways to avoid saying "don't":

Negative	Positive
Don't spill...	Pour carefully.
Don't yell...	Use your quiet voice inside.
Don't talk with your mouth full.	Chew and swallow-- then talk.
Don't run over the flowers...	Ride on the sidewalk.
Don't throw the ball in the house.	Throw the ball in the backyard (or) roll the ball on the floor.
- Acknowledge positive behavior. Perhaps the most significant element of a positive approach to guiding behavior is acknowledging behaviors you want to be repeated. Most children spend great stretches of time behaving well. This deserves recognition. Positive recognition shows children that they can

get the attention they need without misbehaving.

Whenever possible, ignore misbehavior; but teach the behavior you desire. This may require more patience some days! If you find yourself spending too much time focusing on what a child is doing wrong, start shifting your attention to notice what they are doing right and comment on it. When you spend our time focusing on the negative, the child may feel "What's the use? They never notice anything I do right." On the other hand, if you focus your time, attention, and energy on the positive, negative behavior will soon decrease and the positive will increase. By noticing children doing things right, you bring out the good that is already there. It is encouraging to you and the child when you focus on what is working.

Whenever a child does something special for themselves or others, acknowledge that behavior and tell them you appreciate it. (This activity is very good for adults who seldom comment on good behavior.) A child tends to repeat a behavior that has been noticed, and it's more fun to repeat behavior that others like rather than that which is met with adult complaints.

- Offer encouragement in the form of descriptive praise. Be specific in your encouragement. Describe in concrete terms what you see and how you feel. Instead of saying, "You're doing a good job" tell the child, "I like the way you put away the toys by yourself this morning." The child's conclusion: "I'm responsible and can take care of my things."
- When giving encouragement, focus on the deed, not the doer. Avoid statements like "You're an angel." or "You're terrific!" These types of statements set unrealistic standards for the child. Praise should be a way of celebrating children instead of evaluating them.

After several weeks of working on her praise techniques, a caregiver said, "You know, I have noticed that the children are starting to thank me more. I guess this stuff rubs off if we are sincere in expressing our appreciation and if we do it consistently enough!"



## Reflective Exercise

Jot down the rules you expect children in your care to follow.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

How do you communicate your expectations to them?

When was the last time you observed a child being good? \_\_\_\_\_

What did you do? \_\_\_\_\_

How did the child respond? \_\_\_\_\_

When was the last time you observed a child misbehaving? \_\_\_\_\_

What did you do? \_\_\_\_\_

How did the child respond? \_\_\_\_\_

What was your short term goal? \_\_\_\_\_

What was your long term goal? \_\_\_\_\_

Did your action support your short- and/or long-term goal? \_\_\_\_\_

## Consequences

Children learn from experience just as adults do. Letting children experience the consequences of their behavior is a hassle-free way for children to learn. We call it "learning the hard way." Children soon realize that every act has a consequence, and they need to take responsibility for their actions.

Consequences may occur naturally or you may structure them. Natural consequences are those that naturally follow an action or decision. For example, the natural consequence of a child's not finishing lunch is hunger pains an hour later. Instead of nagging the child to finish lunch, remove the

uneaten food. Do not offer the child more food until afternoon snack time. The child's own inner discomfort is more effective than your nagging at him or her to finish lunch. Natural consequences, however, cannot be used in all situations. Caregivers cannot use natural consequences if the health or safety of the child is involved.

A structured consequence (one arranged by the caregiver) might be giving children the choice of picking up their toys, or you will collect them and deny access to them for a day. If the children choose not to pick up the toys, the consequence is not playing with the toys for one day.

Using structured consequences is an effective way to help children learn without generating

anger or resentment. By offering children choices and consequences, you encourage them to make decisions and to be responsible for their actions.

Structured consequences need to be **related**--a consequence must be logically and obviously related to the behavior; **respectful**--the consequence must be enforced respectfully, without anger, force, or humiliation; **reasonable**--the consequence must seem reasonable to the child and to the adult.

When a child spills milk, the **related** consequence is to have him or her clean up the spill. Time-out would not be a related consequence. You are **not respectful** if you say, "How can you be so clumsy?" or "I told you if you weren't careful, you would spill it! Let me pour from now on since you can't seem to do it right." A **respectful** comment is "Whoops! What do you need to do?" Then hand the child a cloth to clean up the spill. It is **not reasonable** to expect the child to suffer for the mistake by saying, "To make sure you learn, I want you to scrub the whole floor."

Consequences should be used as learning experiences, not punishment. They won't work if they are used like punishment. When the consequences are no longer **related**, **respectful**, and **reasonable**, children will experience what Jane Nelson (*Positive Discipline*) refers to as the "Rs" of Punishment:

**Resentment**-- "This is unfair. I can't trust adults."

**Revenge**--"They are winning now, but I'll get even."

**Rebellion**--"I'll do just the opposite to prove I don't have to do it their way."

**Retreat/reduced self-esteem**--"I won't get caught next time," or "I am a bad person."



Discuss with the children the consequences for breaking a rule before they break it. Not only does using consequences develop a sense of responsibility; it also leads to warmer relationships. There is no conflict between caregiver and child because the situation itself provides the lesson to the child.

Caregivers should not apply consequences if they are angry. The secret to applying consequences is to stay calm and detached when a rule is broken. Be friendly, not vengeful and spiteful. A child can detect anger in a caregiver's voice. Try to view the situation objectively, and then administer the consequences in a firm and kindly manner. It is not easy. It's hard work to think of consequences that are really *related*, *respectful*, and *reasonable*. It requires lots of patience. Sometimes it takes several weeks to get results. Because caregivers are used to telling children what to do, it may be difficult for them to sit back and let the child experience the consequences of his or her action.

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## Use of Time-Out

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In spite of all the positive discipline children receive, they still misbehave occasionally. A possible structured consequence for misbehavior is a "time-out." Care should be taken so that caregivers do not use time-out as a threat or punishment. It becomes punishment if the child is treated inappropriately, such as being made to feel guilty or ashamed. Used correctly, a time-out should help children feel better--not worse--about themselves.

Research shows that time-out is an excellent alternative to more violent traditional ways (threatening, yelling, or spanking) of stopping inappropriate behavior. Time-outs have many advantages. They can be used with children age two or older. Time-out provides an opportunity for the children to think about their actions, choices, and consequences.

A typical time-out for a child is to sit away from the group for a specified time. A rule of thumb is one minute of time-out for each year of age. When disciplining a child in this way, tell the child to go to the place you have chosen. Next, set a timer for the specified time. If the child leaves the chair before the timer rings, reset the timer and tell the child to stay in the chair until the timer rings. Repeat the process until the child sits in the chair for the specified time.



Before trying this method, sit down and explain this technique to the children when both you and the children are in a happy frame of mind. It always helps when children know what to expect. For example, tell the children, "The next time you argue over the toys, we're going to use a time-out. When I say, take a time-out, it means you have to go to separate areas and stay for five minutes (or one minute for every year old the child is). I will tell you when the five minutes are up."

Call time-outs in a calm manner. Don't scream or haggle. The time-out saves caregivers from trying to decide who started the fight and who is to blame. When fighting breaks out say, "Since you children cannot

get along with each other, I think you need a time-out." If a child says, "But he started it," say, "It doesn't matter who started it, your actions indicate that you both need a time-out." If the child knows why the time-out was given, the caregiver can help the child learn to take responsibility for his or her actions, and a good relationship can be maintained or developed.

The child needs to learn that the caregiver means business, that once a time-out is called, the child is going to an area and will stay there for a specified time. The caregiver must mean it. If the caregiver calls a time-out and then does not see that the child goes to the designated area, the technique will not work. The child soon learns to ignore the caregiver who doesn't enforce the time-out.

If the child becomes upset or won't stay in the time-out area, the caregiver may sense that the child needs attention. This situation may merit the child spending the time-out away from the group and with a caring adult. This provides an opportunity for the child to share his or her feelings about his or her behavior. This use of time-out is not a reward for acting out, but rather allows learning to occur.

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## Typical Discipline Problems and Possibilities

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Child caregivers must deal daily with inappropriate behavior. Let's look at some typical discipline problems and some possible solutions.

- © **Yelling or screaming.** Try saying, "I want to hear what you're saying. When you speak too loudly I can't listen because it hurts my ears. When you speak softly it helps my ears feel better."

Another solution is to say, "Loud voices are for outdoors, soft ones for indoors." Or "You seem to be angry or upset. I can listen better when you speak more softly."

- ☺ **Speaking when an adult is speaking.** "I'm glad you have something to tell me. It is your turn to listen now, and my turn to speak. Then we'll trade." Remember to follow through and ask the child what he or she wanted to say.
  - ☺ **Cleanup.** "I'll help you put the toys/books away. It's a big job, but it can be fun when people work together. It gives us time to talk to each other."
  - ☺ **Name calling.** "She likes to be called by her right name. Her name is \_\_\_\_\_."
  - ☺ **Abuse of books or toys.** "There's a special way to turn pages so they won't tear." Demonstrate taking hold of the corner and then turning the page. "If you feel like tearing something, here are some magazines that you may tear. Everyone has finished reading them."
  - ☺ **Lying.** Stop asking set-up questions that invite lying. A set-up question is one to which you already know the answer. "Did you pick up the toys?" Instead say, "I noticed you did not pick up the toys. Let's work on a plan for picking them up."
- Be honest with the child. Say, "That doesn't sound like the truth to me." Most of us don't tell the truth when we are feeling trapped, scared, or threatened in some way. You might say, "Please think about this, and we can talk about it later."
- ☺ **Whining.** Some whining is normal in children--from tots to teens. Toddlers (ages 1 ½ to 3) often whine when they

haven't mastered the words to communicate clearly. Help them name their feelings and explain their desires. Four common types of whining include the following:

- "But I want it" whining  
*Strategy: Be decisive: When a child makes a request, say "yes" or "no" immediately. If "no" triggers a bout of whining, get down to the child's eye level. Say in a firm voice, "No matter how much you whine, I will not change my mind." If this doesn't work, quickly move the child to another location. Repeating limits in different surroundings often breaks the whining cycle.*
- Overtired whining  
*Strategy: Some whining is a signal that we're pushing children too hard. To combat fatigue whining, intervene before the behavior gains a foothold. Provide a quiet time and place where the child can rest or sleep; let them select a favorite book; play soothing music; give them time and space to daydream.*
- Automatic-pilot whining  
*Strategy: Refuse to reinforce it. Remind the child that they are whining and that you can't think with all the whining. Tell the child to stop whining or have them take a whining time-out. Leave the area where the child is whining.*
- Bored and restless whining  
*Strategy: Get busy with the child. Involve the child in tasks that require active concentration---painting, fixing*

*an object, cooking, gardening,  
playing games, etc.*

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USA Publishing

### **Preventing Discipline Problems**

What else can you do to ensure that  
reasonable efforts are being made to  
prevent discipline problems?

1. Accept each child as a worthwhile  
and important person.  
Understand that a child's  
behavior is a reflection of his or  
her life experiences to date.
2. Anticipate and intervene before  
disruptive behavior occurs.
3. Provide materials and activity  
areas that reflect a wide range of  
interests and abilities.
4. Alternate livelier and quieter  
activities throughout the day.
5. Maintain an orderly flow through  
routines so that children are  
neither hurried nor required to  
spend much time waiting for each  
other.
6. Divide children into small groups  
for activities, especially those  
activities requiring close  
supervision, such as cooking.
7. Plan for individual differences in  
each developmental area for  
every child. Children need  
challenges, but not serious  
frustrations.

### **Teach by Example**

Teaching by example is powerful! As adults,  
we must model the behavior we want to see  
in children. When we lead, guide, and help  
children improve their choices, we are  
guiding them along paths that will give them  
the best chance for growth, happiness, and  
success.

Children do not automatically know what  
constitutes appropriate behavior. Because  
they are natural imitators, children model  
themselves after important adults in their  
lives. They learn likes and dislikes, interests,  
manners, and morals through imitation. If we  
want children to respect the rights and  
feelings of others, we must begin by  
respecting the rights and feelings of children.

In managing conflicts, you can blow up,  
shout, and get wild-eyed and red-faced, or  
you can conduct yourself in a manner that  
models the way you want children to act  
when they face conflict. Children will notice  
how you approach stressful situations,  
resolve conflicts, solve problems, and  
conduct yourself around other adults and  
children.

As a child caregiver, you are  
a role model. Speak and act  
in ways you want children to  
speak and act. Research  
indicates that the adult model  
is still the most influential  
source of learning for  
children. If you notice and  
appreciate something a child has done, you  
could either say nothing to the child, thank  
the child for the kindness, or inappropriately  
announce that the child has finally done  
something right. You appreciate it if





someone acknowledges what you have done well and right. By expressing sincere appreciation for something a child has done you model an appropriate behavior. Consistent, positive role modeling can result in children responding to you and others in similar ways.

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## **Consistency in Discipline**

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Consistency in dealing with children's behavior is critical if you want a technique or method to work. Although no caregiver can or should expect to be perfectly consistent, some level of consistency is necessary for a child to learn the lessons of social life and feel secure while doing so. Children learn appropriate behavior easier when learning conditions remain constant. Caregivers should consider at least three aspects of consistent discipline.

### **Consistency from Situation to Situation**

Your predictable and consistent behavior gives children a sense of security. They need not spend all their energy figuring out what caregivers are going to do next. If rules are consistent, results of disobeying them will be predictable.

The importance of a rule is learned by consistently having it enforced. A child who is disciplined for throwing the ball in the living room on Monday but not disciplined for the same action on Tuesday is confused. By not knowing why they are disciplined one day and not the next, children don't learn the reason for rules or principles. Consistent enforcement of rules tells the child that rules are important.

### **Consistency between Command and Example**

When teaching good behavior, caregivers should "practice what they preach." Children learn values and beliefs more by examples adults set than by verbal instructions.

Screaming at children to be quiet is not effective. Ask them quietly to lower their voices. Decide what is important and what response reinforces what you are attempting to teach.

### **Consistency between Verbal and Nonverbal Messages**

Frequently the message a caregiver sends is not the message the child receives. Sometimes we communicate double messages to them. For example, the adult who spansks a child as punishment for hitting another child is actually imitating the behavior for which the child is being punished. The child may be confused by the double message received: "I'm not supposed to hit, but it is okay for an adult to hit me." The little boy who said "Your mouth says you love me, but your eyes say you don't," received a mixed message. The words told one thing while nonverbal cues suggested the opposite. Mixed and/or double messages leave a child confused as to which message should be acted upon. Caregivers need to be sure they aren't sending double or inconsistent messages.

Allow for, and expect, change. Caregivers can't always be perfectly consistent from day to day or situation to situation. Caregivers' feelings, children's feelings, and specific details are constantly changing. Sometimes your common sense will help you decide when naptime rules should be modified or table manners relaxed. As children grow,

rules and how we deal with them will change. The rules for a four year old will be different for the same child at age six. Some rules will be the same; others will be abolished and new ones will be introduced.

Deciding to use a positive approach to guiding young children can create a bond--and an understanding--that will reach beyond the few months you care for the child. The effects can last throughout a child's entire life!

When the going gets tough, keep in mind that discipline--in combination with understanding--is one of the most precious and lasting gifts you can give a child. As children grow, they will gain the skills necessary to discipline themselves. And that, after all, is the whole idea behind the positive approach to guiding young children!

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## **Make Sure the Message Gets Through**

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Children make decisions about themselves and how to behave based on how they see themselves in relationship to others and how they *think* others feel about them. Your words and actions are powerful tools for building a child's sense of respect, responsibility, resourcefulness, and responsiveness.

**Respect.** A child who is shown respect will develop respect for self and others. If shown respect, a child will be considerate of the feelings of other people and treat them fairly.

We need to constantly remind ourselves to treat children with the same kind of respect we would give our friends and strangers. We

need to help them feel that they (and their opinions) are just as important as adults.

A child will become respectful if treated respectfully.

**Responsibility.** Children who are given responsibility will contribute to the well-being of others. If given responsibility, children will participate willingly in family life activities and take responsibility for their actions.

A child can become responsible by being responsible.

**Resourcefulness.** The children who are resourceful can care for themselves. They can entertain themselves, meet new people, and deal with new situations.

It's never too early to help children develop the resources to amuse themselves. You can help them value their own company by giving positive feedback when they choose to occupy themselves, even if it's just for a short period. When a preschooler says "I can do it myself!" the child is asserting independence. You might say something like "That's great," and then help out only when the child seems on the verge of getting frustrated. (Avoid waiting until failure occurs.)

If, on the other hand, the child says, "I can't do it. You do it for me." the caregiver should encourage with phrases like, "Sure you can. Come on, I'll help you, but I want you to try." This puts the child in the way of experiences of mastery and encourages the child to try over and over again. Eventually, the child will be less likely to say, "I can't." Inside, the child will remember "I learned how to do the last thing I tried, I can probably do this too."

Such confidence is an important part of developing a positive self-concept.

Also, when a child wants to try something new, curb your caution. Instead of saying "Be careful . . . let me do it," say "Give it a try." If the child fails, give recognition for trying.

Another way to cultivate independence is to seek out and seriously consider a child's opinion on subjects that may vary from how to solve a specific day-to-day problem or how to solve a world issue problem.. Show that you value children's thoughts by incorporating their ideas or solutions into concrete action whenever possible.

A child can become resourceful if permitted to become independent and self-reliant. **Responsiveness.** The child who is treated in a friendly, affectionate, and loving manner will probably be friendly, affectionate, and loving. This child will like other people, and people in turn will enjoy being with the child. This child will enjoy life.

Children will become responsive if a caregiver treats children consistently in fair, loving, and respectful ways; requires children to use their own resources to solve problems; and encourages children in friendly and loving ways.



## EFFECTIVE WAYS TO DISCIPLINE A CHILD

Children don't always mean to misbehave; sometimes they have not had the life experiences to know how to act in socially acceptable ways. They need guidance from a caring adult to help them learn how to behave appropriately. Child caregivers can select one or more of the following strategies to improve their effectiveness in guiding a child's behavior.

- ✎ **Redirection.** When children get into trouble, stop them, explain why you are stopping them, and then suggest another activity. When they scribble on the wall, give them paper and crayons. When they race dangerously indoors, take them outside for a game of chase. When they throw books at each other, gather them for a story time or organize a beanbag toss. This works especially well with very young children.
- ✎ **Fix-up.** When children cause trouble or hurt, expect them to fix it up--or at least to help. If they spill milk, give them a cloth to clean it up. If they break a toy, ask them to help you fix it. If they make a child cry, have them help with the soothing. If they throw toys around the room, ask them to put them away.
- ✎ **Ignore.** Children need attention for good behavior, not misbehavior. The best way to deal with misbehavior aimed at getting your attention is to ignore it.
- ✎ **Make rules impersonal.** Present rules in impersonal terms. Then, if the children feel any conflict it will be between themselves and the rule; not between you and the children. Instead of saying, "I don't want you drinking grape juice in the

play area," remind the children, "The rule is, food and drinks at the table only, please."

- ✎ **Offer choices.** Instead of yelling, "Pick up every toy on this floor right this minute," it is more effective to ask in a matter-of-fact tone, "Would you like to start picking up toys on this side or over by the window?" (Notice how a true choice differs from a threat like "Would you rather clean this room or miss play time?")
- ✎ **Give compliments.** Compliments are a powerful discipline tool. Give each child at least one compliment a day.
- ✎ **Be firm.** Clearly and firmly tell that the child to do what needs to be done. Do not use a wishy-washy tone of voice. Speak in a tone that lets the child know that you mean what you say and that you expect the child to do it. Being firm doesn't mean yelling, threatening, reasoning, or taking away privileges. Being firm works for any age child and for many situations.
- ✎ **Be brief and clear.** The more often you repeat the same message, the more children tune you out. As a child starts outside for playtime, you need say only one word: "Coat!"
- ✎ **Stay in control.** Act before the situation gets out of control - before you become angry and overly frustrated, and before the child's behavior becomes unreasonable.

## Three Self Improvement/Reflective Activities

### Catching Myself



In thinking about positive behaviors of children this past week, I remember/ appreciated it when \_\_\_\_\_ (child's name) \_\_\_\_\_ (positive behavior). I did did not (circle one) compliment him/her for this specific behavior. An appropriate compliment that was/could have been given is " \_\_\_\_\_ (child's name), \_\_\_\_\_ (your feelings and what the child did)." *Remember to use the child's name.* Example: "Sharon, I'm glad you are sharing the toys with Brandon this morning. He seems to enjoy playing with you."

During the next week I will watch for and compliment children for their positive behaviors.

\_\_\_\_\_  
Caregiver's Signature

**Reflect back to a time when a child misbehaved. If you were to analyze the misbehavior from the child's perspective, the reason(s) for the misbehavior was probably because he or she was:**

- \_\_\_\_\_ not feeling well
- \_\_\_\_\_ feeling rejected
- \_\_\_\_\_ lacking knowledge or experience
- \_\_\_\_\_ upset and felt insecure
- \_\_\_\_\_ discouraged
- \_\_\_\_\_ felt unloved
- \_\_\_\_\_ lacked confidence

**How many times during the past week/yesterday do you remember using the following positive discipline techniques?**

**Number of times**

- \_\_\_\_\_ I used a positive statement about what I wanted a child to do rather than telling the child what not to do.  
*Each time I did this I gave the child an opportunity to do the right thing.*
- \_\_\_\_\_ I gave a child an opportunity to demonstrate that he or she was competent.  
*Each time I did this I helped the child develop self confidence and a sense of responsibility.*
- \_\_\_\_\_ I said "yes" to a child's request--rather than responding with an automatic "no" or "maybe."  
*Each time I did this I listened and respected the child's thinking.*
- \_\_\_\_\_ I ignored misbehavior and focused on positive behavior.  
*Each time I did this I kept a positive attitude myself.*
- \_\_\_\_\_ I gave positive recognition (compliment or praise) to a child for doing something right.  
*Each time I did this I helped build the child's self esteem.*
- \_\_\_\_\_ I let a child experience the consequences of his or her behavior.  
*Each time I did this I let the child take responsibility for personal actions.*
- \_\_\_\_\_ I used a structured consequence that was related, reasonable, and respectful.  
*Each time I did this I provided positive discipline.*
- \_\_\_\_\_ I gave a child a choice about courses of action rather than dictating or nagging.  
*Each time I did this I gave the child an opportunity to make a wise decision.*
- \_\_\_\_\_ I remained friendly, calm, and detached when disciplining a child.  
*Each time I did this I focused on the unacceptable deed, not on the worth of the child.*
- \_\_\_\_\_ I used time-out successfully.  
*Each time I did this I gave the child/children a chance to feel better about self, cool down, avoid combat; think about actions, choices, and consequences.*
- \_\_\_\_\_ I modeled an appropriate behavior.  
*Each time I did this I taught by example.*

- \_\_\_\_\_ I was consistent in disciplining from one situation to the next.  
*Each time I did this I showed that children can expect to be treated fairly.*
- \_\_\_\_\_ I sent messages in which my non-verbal and verbal messages were consistent.  
*Each time I did this I sent a message that children could understand.*
- \_\_\_\_\_ I listened and responded respectfully to a child in my care.  
*Each time I did this I helped the child respect and value his or her thoughts.*
- \_\_\_\_\_ I provided encouragement for a child to do something he or she had not done before.  
*Each time I did this I helped the child become resourceful and responsive.*

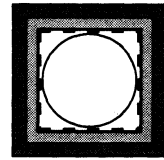
# Congratulations

Well done on your highest numbers! The techniques for which you reported the lowest scores offer a challenge to you. Select one or two of these techniques you want to increase during the next week. Keep a daily record of how you are doing.

# **GUIDANCE AND DISCIPLINE EVALUATION QUIZ**

## ***Knowledge Questions***

(Complete the knowledge questions for one training hour)



**Guidance &  
Discipline**

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**Circle the most correct answer. Transfer your answers to the correct form in the evaluation section. Following the directions listed on the first page of the evaluation section, mail your form(s) to receive your training certificate(s).**

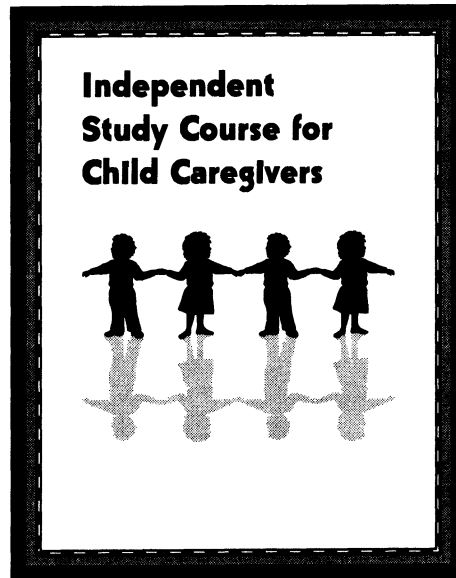
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1. The purpose of positive discipline and guidance is to teach in such a way that children can
  - A. Learn to rely on adults to tell them what to do.
  - B. Develop their inner guidance system.
2. Is there a difference between discipline and punishment?
  - A. Yes
  - B. No
3. Your predictable and consistent behavior gives children
  - A. A sense of security
  - B. Control over you
4. When giving encouragement, focus on the
  - A. Deed
  - B. Child
5. In order to teach children how to make better choices we should
  - A. Criticize them when they make a poor choice and praise them for their wise choices.
  - B. Provide feedback about all choices, discuss why their choices are important, and talk about how they might do better next time.



# Section 12

## Evaluation



# Evaluation Section

The forms in this section need to be completed and mailed to the following address to receive your training certificate(s).

**Mail the form(s) and a \$3.00 processing fee to:**

Darlene Martin  
NEREC  
P.O. Box 111  
Concord, NE 68728

**Make your check payable to The University of Nebraska**

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## *Questions and Answers Concerning Training Hours*

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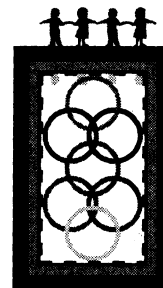
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- ✓ How many training hours can I receive at one time?
  - ✎ An individual may select as many as eleven training hours to complete. Mail in all eleven quizzes for a three dollar processing fee. An individual may select one training hour to complete. Mail in one quiz for a three dollar processing fee.
- ✓ May I send my quiz(zes) in with someone else's quiz(zes)?
  - ✎ Yes, you may send your quiz(zes) in with another person's quiz(zes), but there will be a \$3.00 processing fee for each individual. The processing fee covers the certificate, handling and mailing cost.
- ✓ Is there a time limit that I can use the course and send in the quizzes?
  - ✎ Yes and no, **after** three years from the date of printing -- check with the contact person to know if any content updates have been added to the course.
- ✓ Who is the contact person that I can telephone?
  - ✎ Darlene Martin is the contact person and may be reached at 402-584-2814 or 402-584-2261.

# NUTRITION EVALUATION QUIZ

## PART 1: *Knowledge Questions*

(This quiz contains two parts -- answer both parts for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *Nutrition* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the <sup>○</sup>(●) to the right of the correct answer letter.

- |   |  |
|---|--|
| 1.    A <sup>○</sup> B <sup>○</sup> C <sup>○</sup> D <sup>○</sup> | 4.    A <sup>○</sup> B <sup>○</sup> C <sup>○</sup> |
| 2.    A <sup>○</sup> B <sup>○</sup> C <sup>○</sup> D <sup>○</sup> | 5.    A <sup>○</sup> B <sup>○</sup> C <sup>○</sup> |
| 3.    A <sup>○</sup> B <sup>○</sup>                               | 6.    A <sup>○</sup> B <sup>○</sup>                |

### \*\*\*\*\*PLEASE COMPLETE ALL OF THE FOLLOWING INFORMATION\*\*\*\*\*

Information gained from the quizzes may be published in scientific journals or presented at scientific meetings but any information that could identify you will be kept strictly confidential. Your signature certifies that you agree to having your quiz scores complied with other scores as part of the independent study course child caregiver research study. If you have any questions, please do not hesitate to ask -- Darlene Martin, Ph.D., R.D., Principal Investigator, UN-L NEREC, P.O. Box 111, Concord, NE 68728, Office phone: 402-584-2261.

Signature _____	Date _____
Name: _____	
Address: _____	
_____ , NE _____	
TOWN _____	ZIP CODE _____

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

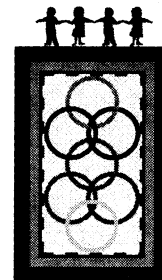
Family Caregiver  
Center Director

Center Caregiver

Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes    No

*Please complete part 2 of this quiz before mailing.*



# NUTRITION EVALUATION QUIZ

## PART 2: *Practice Changes*

<p><b>Directions:</b> Please read each practice. How often did you do these practices BEFORE and AFTER reading the material in this chapter? <b>Circle</b> the number that best describes how often you did each practice before and after taking this study course.</p>	<p><b>KEY</b></p> <p>1. Almost Never or Never          2. Seldom          3. About Half the Time          4. Often          5. Almost Always or Always</p>	
NUTRITION PRACTICES	BEFORE the Course	AFTER the Course
1. I try to incorporate a balance of foods into my daily diet.	1    2    3    4	1    2    3    4    5
2. I purchase foods that will give me variety in my diet.	1    2    3    4    5	1    2    3    4    5
3. I eat at least six servings of grains daily.	1    2    3    4    5	1    2    3    4    5
4. My diet is moderate in salt and sodium.	1    2    3    4    5	1    2    3    4    5
5. My diet is moderate in sugars.	1    2    3    4    5	1    2    3    4    5
6. I balance my diet in terms of being low in fat, saturated fat, and cholesterol.	1    2    3    4    5	1    2    3    4    5

Please fill in your name \_\_\_\_\_

# FOOD PREPARATION AND THE USDA MEAL PATTERN REQUIREMENTS EVALUATION QUIZ

## PART 1: *Knowledge Questions*

(This quiz contains two parts -- answer both parts for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *Food Preparation and the USDA Meal Pattern Requirements* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

1.     A ☐ B ☐

4.     A ☐ B ☐

2.     A ☐ B ☐

5.     A ☐ B ☐

3.     A ☐ B ☐

### \*\*\*\*\*PLEASE COMPLETE ALL OF THE FOLLOWING INFORMATION\*\*\*\*\*

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_  
TOWN ZIP CODE

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver

Center Caregiver

Center Director

Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes    No

*Please complete part 2 of this quiz before mailing.*



# FOOD PREPARATION AND THE USDA MEAL PATTERN REQUIREMENTS EVALUATION QUIZ

## PART 2: *Practice Changes*

<p><b>Directions:</b> Please read each practice. How often did you do these practices BEFORE and AFTER reading the material in this chapter? <b>Circle</b> the number that best describes how often you did each practice before and after taking this study course</p>	<p><b>KEY</b></p> <ol style="list-style-type: none"> <li>1. Almost never or never</li> <li>2. Seldom</li> <li>3. About half the time</li> <li>4. Often</li> <li>5. Almost always or always</li> </ol>	
PRACTICES	BEFORE	AFTER
1. I feel confident/comfortable using creditable meal patterns as a guide for menu planning.	1 2 3 4 5	1 2 3 4 5
2. I try to incorporate vitamin A, vitamin C and iron rich foods in my menus.	1 2 3 4 5	1 2 3 4 5
3. I plan combinations of foods that are pleasing and acceptable to children.	1 2 3 4 5	1 2 3 4 5
4. I use purchasing practices that help me get the most for my food dollar.	1 2 3 4 5	1 2 3 4 5
5. I use food preparation techniques that provide for acceptable and nutritious foods.	1 2 3 4 5	1 2 3 4 5

Please fill in your name \_\_\_\_\_

# MEALTIME BEHAVIOR: THE FEEDING RELATIONSHIP EVALUATION QUIZ

## *Knowledge Questions*

(Complete the knowledge questions for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *Mealtime Behavior: The Feeding Relationship* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

1. A ☐ B ☐ C ☐ D ☐
2. A ☐ B ☐ C ☐ D ☐
3. A ☐ B ☐ C ☐ D ☐
4. A ☐ B ☐ C ☐ D ☐
5. A ☐ B ☐ C ☐ D ☐

6. A ☐ B ☐ C ☐ D ☐
7. A ☐ B ☐ C ☐ D ☐
8. A ☐ B ☐
9. A ☐ B ☐
10. A ☐ B ☐

### \*\*\*\*\*PLEASE COMPLETE ALL OF THE FOLLOWING INFORMATION\*\*\*\*\*

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_  
TOWN ZIP CODE

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver

Center Caregiver

Center Director

Other - write in please \_\_\_\_\_

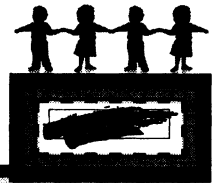
If you are a center caregiver, do you work with food preparation? Yes No



# FOOD SAFETY EVALUATION QUIZ

## Part I: Knowledge Questions

(Complete the knowledge questions and practice change questions for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *Food Safety* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

- |  |  |  |   |
|--|--|--|---|
| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 4. <input type="radio"/> T <input type="radio"/> F   | 7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 5. <input type="radio"/> T <input type="radio"/> F   | 8. <input type="radio"/> T <input type="radio"/> F   | 11. <input type="radio"/> T <input type="radio"/> F   |
| 3. <input type="radio"/> T <input type="radio"/> F   | 6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 9. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C                         |   |

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_

TOWN \_\_\_\_\_ ZIP CODE \_\_\_\_\_

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver

Center Caregiver

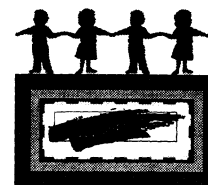
Center Director

Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes No

*Please complete part 2 of this quiz before mailing.*





# FOOD SAFETY EVALUATION QUIZ

## PART 2: Practice Changes

Directions: Please read each practice. How often did you do these practices BEFORE and After reading the material in this chapter? Circle the number that best describes how often you did each practice before and after taking this study course.		<b>KEY</b> 1. Almost Never or Never 2. Seldom 3. About Half the Time 4. Often 5. Almost Always or Always	
FOOD SAFETY PRACTICES	BEFORE the Class	AFTER the Class	
1. Hot foods were properly held at or above 140°F for 2 hours or less.	1   2   3   4   5	1   2   3   4   5	
2. Properly cool and store foods in shallow containers.	1   2   3   4   5	1   2   3   4   5	
3. Prepare potentially hazardous foods as close to serving as possible.	1   2   3   4   5	1   2   3   4   5	
4. Wash hands often; before, during and after handling raw foods (especially meats, poultry), after changing diapers, emptying garbage, handling pets, or after any interruption.	1   2   3   4   5	1   2   3   4   5	
5. Reheat foods (precooked and leftovers) to 165°F.	1   2   3   4   5	1   2   3   4   5	
6. Handle raw foods carefully - use clean utensils, cutting boards, wash hands often, to prevent cross contamination.	1   2   3   4   5	1   2   3   4   5	
7. Transfer baby food from jar to a separate dish.	1   2   3   4   5	1   2   3   4   5	
8. Discard leftover formula not consumed at one feeding.	1   2   3   4   5	1   2   3   4   5	
9. Clean equipment, sanitize if necessary.	1   2   3   4   5	1   2   3   4   5	
10. Wash cutting boards with hot soapy water and rinse well between uses; sanitize often.	1   2   3   4   5	1   2   3   4   5	
11. Thoroughly cook all ground meat products - until brown.	1   2   3   4   5	1   2   3   4   5	

# THE CAREGIVER EVALUATION QUIZ *Knowledge Questions*

(Complete the knowledge questions for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *The Caregiver* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

- |   |   |
|---|---|
| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 11. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         |
| 2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 12. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         |
| 3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 13. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         |
| 4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 14. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E |
| 5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 15. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C   |
| 6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 16. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         |
| 7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  | 17. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         |
| 8. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  |   |
| 9. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C  |   |
| 10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C |   |

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_

TOWN \_\_\_\_\_ ZIP CODE \_\_\_\_\_

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver

Center Caregiver

Center Director

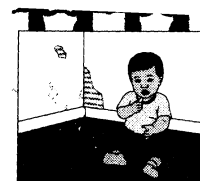
Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes    No

# ESTABLISHING AND MAINTAINING A HEALTHY LEARNING ENVIRONMENT EVALUATION QUIZ

## Knowledge Questions

(Complete the knowledge questions for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for *Establishing and Maintaining a Healthy Learning Environment* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

- |  |   |
|--|---|
| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/>                         | 8. <input type="radio"/> A <input type="radio"/> B <input type="radio"/>  |
| 2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/>                         | 9. <input type="radio"/> A <input type="radio"/> B  |
| 3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/>                         | 10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/>   |
| 4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/>                         | 11. <input type="radio"/> A <input type="radio"/> B <input type="radio"/>   |
| 5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/>                         | 12. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> |
| 6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E <input type="radio"/> | 13. <input type="radio"/> A <input type="radio"/> B <input type="radio"/>   |
| 7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/>   | 14. <input type="radio"/> A <input type="radio"/> B <input type="radio"/>   |

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_  
TOWN ZIP CODE

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver      Center Caregiver  
Center Director

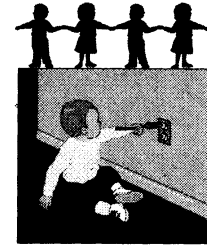
Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes    No

# ESTABLISHING AND MAINTAINING A SAFE LEARNING ENVIRONMENT EVALUATION QUIZ

## PART 1: *Knowledge Questions*

(Complete the knowledge questions and check list for anticipated changes for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *Establishing and Maintaining a Safe Learning Environment* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

1.     ☐ T   ☐ F
2.     ☐ T   ☐ F
3.     ☐ T   ☐ F
4.     ☐ T   ☐ F

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_

TOWN \_\_\_\_\_ ZIP CODE \_\_\_\_\_

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

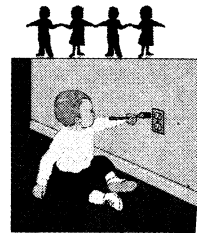
Circle correct job description:

Family Caregiver     Center Caregiver  
Center Director

Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes   No

*Please complete part 2 of this quiz before mailing.*



# **ESTABLISHING AND MAINTAINING A SAFE LEARNING ENVIRONMENT EVALUATION QUIZ**

## **PART 2: *ANTICIPATED CHANGES***

**As a result of this section, do you plan to make any changes in your child care physical facilities for safety purposes?**

**Make a check mark in the squares for the changes you plan to make.**

- ☐ **Perform a facility safety check**
- ☐ **Obtain more information on standards and regulations for daycare homes or centers**
- ☐ **Conduct safety drills**
- ☐ **Install fire extinguisher**
- ☐ **Install smoke alarm**
- ☐ **Fence area**
- ☐ **Make changes in furniture**
- ☐ **Make changes in play equipment**
- ☐ **Make changes in entrance or exits**
- ☐ **Take steps to decrease injury from falls**
- ☐ **Change storage/location of poisonous materials**
- ☐ **Change types of materials used in arts and crafts projects to reduce toxicity and potential safety problems**
- ☐ **Other steps**

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# HOW CHILDREN AGES THREE TO FIVE GROW AND LEARN EVALUATION QUIZ

(This quiz is one page in length)



- ① Instructions: Use this form to mark your answers to quiz for the *How children ages three to five grow and learn* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

- |  |  |
|--|--|
| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         | 6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E                         |
| 2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E | 7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E <input type="radio"/> F |
| 3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         | 8. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E                         |
| 4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E | 9. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E                         |
| 5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D                         |  |

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_  
TOWN ZIP CODE

County name \_\_\_\_\_

Circle correct job description:

Phone number: \_\_\_\_\_

Family Caregiver Center Caregiver

Center Director \_\_\_\_\_

Other - write in please \_\_\_\_\_

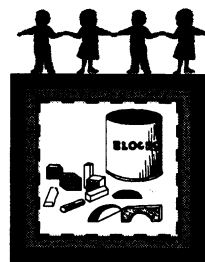
If you are a center caregiver, do you work with food preparation? Yes No



# HOW TO SELECT ACTIVITIES THAT ARE DEVELOPMENTALLY APPROPRIATE EVALUATION QUIZ

## Knowledge Questions

(Complete the knowledge questions for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *How to Select Activities that are Developmentally Appropriate* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ to the right of the correct answer letter.

- |  |  |
|--|--|
| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C                         |
| 3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_

TOWN \_\_\_\_\_ ZIP CODE \_\_\_\_\_

County name \_\_\_\_\_ Phone number: \_\_\_\_\_

Circle correct job description: Family Caregiver      Center Caregiver

Center Director \_\_\_\_\_

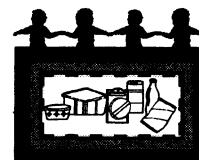
Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes    No

# CHILDREN WITH SPECIAL NEEDS EVALUATION QUIZ

## *Knowledge Questions*

(Complete the knowledge questions for one training hour)



- ① Instructions: Use this form to mark your answers to quiz for the *Children with Special Needs* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the <sup>○</sup>(●) to the right of the correct answer letter.

- |   |                                     |
|---|-------------------------------------|
| 1.    A <sup>○</sup> B <sup>○</sup>                               | 4.    A <sup>○</sup> B <sup>○</sup> |
| 2.    A <sup>○</sup> B <sup>○</sup> C <sup>○</sup> D <sup>○</sup> | 5.    A <sup>○</sup> B <sup>○</sup> |
| 3.    A <sup>○</sup> B <sup>○</sup>                               | 6.    A <sup>○</sup> B <sup>○</sup> |

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Signature \_\_\_\_\_ Date \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_  
TOWN ZIP CODE

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver    Center Caregiver  
Center Director

Other - write in please \_\_\_\_\_

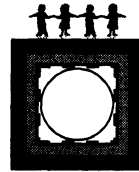
If you are a center caregiver, do you work with food preparation? Yes    No



# GUIDANCE AND DISCIPLINE EVALUATION QUIZ

## *Knowledge Questions*

(Complete the knowledge questions for one training hour)



Guidance &  
Discipline

- ① Instructions: Use this form to mark your answers to quiz for *Guidance and Discipline* section.
- ② Please complete all of the blanks on this form.
- ③ Follow the mailing directions on the first page of the evaluation section.

Please darken the ☐ ☒ to the right of the correct answer letter.

1.     A ☐ B ☐
2.     A ☐ B ☐
3.     A ☐ B ☐
4.     A ☐ B ☐
5.     A ☐ B ☐

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Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_, NE \_\_\_\_\_  
TOWN ZIP CODE

County name \_\_\_\_\_

Phone number: \_\_\_\_\_

Circle correct job description:

Family Caregiver     Center Caregiver  
Center Director

Other - write in please \_\_\_\_\_

If you are a center caregiver, do you work with food preparation? Yes    No