1939

4-H Keep Well Two: Extension Circular 10-02-2

Mary B. Nelson

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OCTOBER, 1939
EXTENSION CIRCULAR
10-02-2

4-H KEEP WELL TWO

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"Just as the twig is bent, the tree's inclined"

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL COLLEGE EXTENSION
SERVICE AND UNITED STATES
DEPARTMENT OF AGRICULTURE
COOPERATING.
W. H. BROKAW, DIRECTOR, LINCOLN
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EXTENSION CIRCULAR 10-02-2

This is the second in a series of "Keep Well" circulars for 4-H clubs. In the preparation of the two circulars Dr. R. A. Lyman, Dean of the College of Pharmacy, University of Nebraska, has given advice and final approval. Dr. D. A. Keys, of the College of Dentistry, has read and approved the material on teeth.

Lincoln, Nebraska October, 1939
You are beginning the second project in a Keep Well club. In order that you may plan the work that you will do, an outline is given here of the problems your club will study: (1) Guarding the Gateways, (2) Let's Build Good Teeth, (3) Thinking High and Living Right, (4) Red Blood and Fresh Air, and (5) Protect Ourselves and Those Around Us.

In the second year of Keep Well club work, in order to earn a Certificate of Achievement, each boy and girl will be asked to do the following:

- Score yourself twice on the food habits score card.
- Practice fresh-air rules.
- Keep a height-weight chart.
- Keep health habits for six weeks.

Guarding the Gateways—The Eye

We use our eyes to see—at home, at school, and everywhere. Our eyes are as delicately made as a fine watch and even more valuable to us than the best watch that could be made. Great care should be taken to protect them from injury.

Nature has protected our eyes in several ways. With the fingers you can feel a ridge of bones that surrounds each eye. This is the edge of the hollow bony socket in which the eye is placed. This safe location helps to protect it from injury.

The eyelids, eyelashes, eyebrows, and tears are other natural protectors of the eyes. The eyelids are like little gates which close over the eyes to protect them from harm. The eyelashes are tiny hairs which warn of dangers so that the eyelids can close quickly enough to prevent things from getting into the eye. The eyebrows are hairs which are useful to keep perspiration from running down into the eyes too easily. The tears are a watery liquid which washes over the outside of the eyes. This helps to clear them of dust and germs which settle upon them. The tears also keep the eyeball moist so that the lids can move easily over it. The tears run off through a tube, or canal, which leads from the inner corner of each eye into the nose. When we cry, the tears are formed too
fast for these tubes to carry them off, and they overflow and run down our cheeks.

Our eyes also need to be protected from use in improper ways. We have only one pair of eyes to last us a lifetime, and we should use them in ways that help them with their work rather than harm them.

A committee of the National Education Association has recommended the following rules for the preservation of eyesight:

1. Take care of your eyesight; upon it depends much of your safety and success in life.
2. Always hold up your head when you read.
3. Hold your book 14 inches from your face.
4. Be sure that the light is clear and good.
5. Never read in the twilight, in a moving car, or in a reclining position.
6. Never read with the sun shining directly on the book.
7. Never face the light in reading.
8. Let the light come from behind or over your left shoulder.
9. Avoid books or papers printed indistinctly or in small type.
10. Rest your eyes frequently by looking away from the book.
11. Cleanse the eyes at night and morning with pure water.
12. Never rub your eyes with your hands or an unclean towel, handkerchief, or cloth.

Eye Strain and Its Treatment

There are several symptoms by which one can detect eye strain: (1) pain and headache when using eyes, (2) fatigue and discomfort in eyes after close of work, (3) blurred vision, (4) drowsiness, watering of eyes, sore lids, (5) dizziness and nausea, and (6) twitching of eyelids.

Very often glasses properly fitted will cure these symptoms and relieve the strain. An oculist is a doctor who specializes in the care of eyes. Always go to an oculist for treatment of sore eyes, or to fit glasses for poor vision. Never wear someone else's glasses. If a cinder or speck of dust gets in the eye do not rub, but gently lift the eyelid and turn the eye-
ball back and forth. The secretion of tears may wash out the speck. Warm weak salt water or boric-acid solution may be used gently. Often the upper lid may be turned back and the speck removed with a clean handkerchief or gauze.

**The Ear**

Here we have a picture of the ear. See what an intricate and delicate machine it is. There are three parts: the outer, middle, and inner ear. The outer ear is the auricle and has a tube leading into the middle ear. In the tube is wax which protects the ear from insects. Between the outer and inner ear, is the tympanic membrane or “drum head.” The middle ear is a drum-shaped cavity, very small, called the tympanum. It is filled with air which comes from the Eustachian tube which connects it with the throat. Within the tympanum are three little bones, named because of their shape, the malleum (hammer), the incus (anvil), and the stapes (stirrup). They connect the tympanic membrane with the inner ear. The inner ear is also composed of three parts, making a bony labyrinth, which is filled with a liquid. Sound waves pass through the tube into the tympanic membrane and cause these three bones to vibrate. This causes the fluid to vibrate, and touching the nerve the sound impression is carried to the brain. There is also a mastoid cavity back of the ear which often becomes infected from colds, sore throats, or bad tonsils. Because of its nearness to the brain, it is a very serious condition. Deafness is caused by: (1) Accumulation of wax in the outer ear. Wax becomes hardened and impacked and it is often necessary to consult a physician. It is very unwise and unsafe to try to force it out. (2) An injured drumhead from a violent or severe blow on the head. (3) Infections of the inner ear. (4) Pressure and blocking of Eustachian tube by enlarged or diseased adenoids, and swollen mucous membranes. (5) Abscesses in the inner ear after measles, scarlet fever, severe colds, infected tonsils, caused by infectious
germs if the drum ruptures. The germs from infected tonsils get into the inner ear through the Eustachian tube.

**Treatment of Deafness and Earache**

Any running ear or severe earache needs the skilled care of a physician or ear specialist. Seek the cause of earache, and remove the cause, if possible. Very frequently deafness may be cured or prevented if treated in time. It is a great mistake to stop treatment too soon. Earache often means that the child has adenoids and always means that one is in danger of getting deaf or having further trouble. A running ear should always be treated by a doctor. It will not get well without good care. Any infection in the middle ear is liable to be followed by mastoiditis.

**Nose and Throat**

The nose is the organ through which we breathe. The air is warmed and the dust and germs removed by the air coming in contact with the mucus on the lining of the nose inside the nostrils.

Tonsils often become diseased and stick out in the throat. Sometimes diseased tonsils do not get any larger but contain little cups filled with pus. Diseased tonsils hold poisonous germs which may cause throat trouble or may be carried to other parts of the body and cause serious illness.

Adenoids grow in the back part of the post nasal space where the nose and throat join, and can be seen only by the doctor with a special mirror. Sometimes they stop up the nose and make the child breathe through his mouth. When the child breathes through the mouth, dust and germs get into the body and cold, dry air irritates the mucous membrane of throat, voice box, and windpipe resulting in congestion and infection.

Diseased tonsils and adenoids prevent the boy or girl from gaining in weight, because they prevent proper oxygenation of the blood and become the seat and source of infections. Sometimes there are other conditions that prevent clear breathing through the nose. The family physician is the one to examine and tell us. He will advise what remedy is best.

**Suggestions for the Use of This Problem**

Demonstrate reading and working in the proper light.

Blow through a paper straw or a glass tube into a glass of lime water. Impurities (carbon dioxide) in expired air combine with the lime and turn the water a milky color.

Hold shut first one nostril and then the other and breathe through the open one. Is it difficult to breathe through either nostril? What might this indicate?

Individual tests may be given on listening: (1) Listen to a watch tick 1 and 2 feet away from each side of the head. (2) A game may be played by having one member whisper across the room 20 feet away, while the backs of the boys and girls are turned. How many heard it correctly?
Let's Build Good Teeth

We all enjoy seeing a smiling face and clean shining teeth. One of the good habits we are cultivating is care so that we will have clean, whole, sound teeth. It is important that we have sound teeth for (1) they cut and grind food, (2) they help us to talk, and (3) they give form to the face.

Parts of Teeth

A tooth has three parts: (1) the crown, covered with enamel, (2) the root, that part of the tooth underneath the gums, and (3) the neck, the line at the edge of the gums.

If we would cut a tooth in two, we would find that the enamel covers the crown of the tooth. The body of the tooth is made of material called dentine. The canal contains the tooth pulp, nerve, and blood vessels.

The root has a thin covering of a bone-like material called cementum. At the end of the root is a place where the nerves and blood vessels enter the tooth. The enamel which covers the crown is a hard white shining substance, very brittle and easily polished. Enamel can be very easily injured if one bites or cracks hard substances with the teeth. A little hole in the enamel will hold particles of food and cause decay unless the tooth is kept cleaned and filled by the dentist. Dentine decays faster than enamel if it is exposed to the saliva of the mouth. It is a much softer substance. Dentine and enamel, once destroyed, will never grow again.

How to Build Strong Teeth

A tooth, just like other parts of your body, needs food to keep it in good condition. If you could examine a tooth carefully, you would find little blood vessels in the center to carry the food supply to that tooth. Good building materials are necessary in building a good house. And so are the correct food essentials necessary in the building of bones and teeth. Proper diet is of prime importance because it not only builds sound teeth but helps protect them against dental diseases as well. The teeth, like...
other parts of the body, are made from the food we eat and must, therefore, receive adequate nourishment and exercise. This requires several types of food. Some build strong teeth, others exercise the teeth, and coarser foods help to massage and stimulate the gums.

Foods that contain calcium, phosphorus, and vitamins help to build healthy teeth. In general the foods that are best for building as well as maintaining sound teeth, are milk, eggs, butter, cheese, green vegetables, fruits, whole grain breads and cereals, and meats. Food is important and we need to learn all we can about how to select it wisely.

Below is a standard of general food requirements for a day. It will be interesting to you to score yourself today and then again in about two weeks. If your score shows that your food habits are above 90, try to keep them so. If your score is below 90, try to raise it by improving your food habits where they need it.

<table>
<thead>
<tr>
<th>Food Items</th>
<th>Perfect Score</th>
<th>First Score</th>
<th>Second Score (2 wks. later)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 full cups 10, 3 full cups 15, 4 full cups 20</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 serving 5, 2 servings 10, 3 servings 15. Potatoes may be included as one of the above servings. If a yellow or green vegetable is included, as carrots, squash, greens, or lettuce, 5</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fruits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 serving 10, 2 servings 15</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If raw fruit or vegetables or canned tomato is included, 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Whole Grain Products</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 serving 10, 2 servings 15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cheese, Eggs, Meats, Dried Beans, or Peas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 serving of any of above 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 serving of any two of above 15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water (total liquid)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 cups 5, 6 cups 10</td>
<td>10</td>
<td></td>
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<tr>
<td><strong>Deductions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of tea or coffee 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating sweets between meals 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total deductions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The item "milk" includes milk cooked in food or taken as a beverage. Because the vitamin content of many fruits and vegetables may be somewhat lessened by cooking or drying, it is well to eat raw fruit or vegetables at least once a day. Whole-grain products include whole-grain cereals used as breakfast foods and quick or yeast breads made from graham, whole wheat, rolled oats, or cornmeal.

This score card emphasizes the need of certain essential foods in a well selected diet. It is not intended to represent a complete diet, but serves as a measuring stick to determine whether the body’s needs for the various food nutrients are being met. Moderate amounts of fats, sweets, bread, and other desirable foods should be added to the foods listed above. The size of the serving should vary according to the need of the person; an average serving of vegetables, fruits, or cereals is one-half cup.
Names of the Teeth

Baby teeth are our first set of teeth and very important because they are pathfinders for the permanent ones. Our permanent set of teeth are 32 in number, 16 above and 16 below. Their names are: central incisors, lateral incisors, cuspids, first bicuspids, second bicuspids, first molars, second molars, third molars.

After sixteen years of age we may begin to cut the third molars, usually called "wisdom teeth." They lie so far back in the mouth that often it is hard to brush them. We need to take extra good care of them as they are useful.

Care of the Teeth

Next comes our daily care of the teeth. Twice a day at least the toothbrush is needed. What kind of toothbrush have you? A toothbrush that will clean teeth and gums thoroughly should be about 1 1/2 inches long with large spaces between the groups of bristles. The bristles are placed in groups and the best brushes for cleaning have two rows of these groups of bristles. The bristles are the same length and they should never be so long that it is difficult to get the brush well back in the mouth to cleanse all of the teeth and gums. Brushing the teeth means cleansing the
teeth. To be thorough, cleanse the teeth and mouth in five sections: (1) the outside surfaces of upper and lower jaws of both teeth and gums, (2) the inside surfaces of lower teeth and gums, (3) the inside surfaces of upper teeth and gums and roof of mouth, (4) chewing surfaces of the teeth and back surfaces of the large back teeth, both upper and lower, and (5) the tongue. Use a firm, even stroke downward when cleansing the upper teeth, and an upward stroke on the lower teeth. Brush for two minutes by the clock. Last of all, scratch the gums with the brush bristles without pricking them. This will increase the circulation of the blood in the gums as well as cleansing them.

Use dental floss between your teeth. No amount of brushing will thoroughly clean between the teeth, especially if they are set closely together. The best way to clean between them is to use dental floss, which is a coarse, soft thread made especially for this purpose. Pull this gently between the teeth and it will remove any food particles clinging there. The use of a tooth pick is a poor habit, for in its use many persons injure the delicate gum tissue.

Clean Teeth Are Necessary to Health

Now, why is a clean mouth so essential to our health and our happiness? We enjoy clean food served in clean dishes. We never eat dirty food if we can help it. If our teeth are unclean then the food we chew will be made unclean and we will swallow unclean food. Our saliva will be constantly filled with germs. The germs will be mixed with all the food we eat, and our blood will absorb these poisons and carry them through our body. Diseased teeth and gums also make the breath foul. We do not like to be near a person with foul and unclean breath. Is your own breath clean and sweet? Is there any odor in your breath? By brushing our teeth after each meal and at bedtime we will keep our teeth clean and our breath sweet.

Have your dentist clean your teeth. A rough chalky substance called tartar collects on the teeth close to the gums and no amount of brushing will remove it. Go to your dentist twice a year and he will clean and polish your teeth. The unclean condition of the mouth resulting from tartar deposits is a common cause of bad breath. He will also advise you as to how you can best care for your teeth at home.

The Dentist and What He Does for Our Teeth

Sometimes even when we use our toothbrush faithfully, decayed spots appear in the enamel of our teeth and then the dentist's work and care are necessary. Enamel never grows again; hence the dentist cleans out the cavity and puts in a filling that should prevent more decay.

It is especially important to give first aid to the teeth as the nerve of a tooth is not very far from the surface. As soon as decay reaches the nerve, you not only will suffer from aches and pains but will probably have to have the tooth pulled.
Many teeth have small imperfections in the enamel surfaces, and all such places, no matter how small, should be properly repaired at the earliest possible time, preferably before any decay has occurred. These imperfections are ideal places for food to lodge and bacteria to grow.

**Clean Tooth Brushes**

A good way to clean the brush is to sprinkle it with salt and cover all its bristles. Salt cleanses and hardens the bristles. Another way to keep the brush clean is to let it stand in a little borax water for a time, not exceeding three hours each week. Keep your toothbrush away from dust and do not let it touch any other brush. Dry in the sunshine often.

**Suggestions for Club Meetings**

Demonstrate: massage of gums with clean fingers, selection of proper foods to build good teeth, and care of a toothbrush.

Write down five things to remember about the care of your teeth.

1. ... 2. ... 3. ... 4. ... 5. ...

Sing this song to the tune of “Tramp, Tramp, Tramp”:

“Scrub! Scrub! Scrub!” are words of warning.
Keep all your grinders shining bright.
Use your powder, brush, and paste,
There’s no time to lose or waste,
Keep them clean by brushing
Morning, noon, and night.
Thinking High and Living Right

A SOUND mind in a sound body is a goal for all of us. The brain is described as the seat of the mind. It is concerned with the way we think, feel, and act. No parts of the body are perhaps more marvelous in their mechanism than the brain, the spinal cord, and the nerves. Have you ever wondered why we can do two or more things at once which use different muscles and different parts of our body at the same time? For example, playing the piano and singing, and whittling a stick and whistling at the same time.

How can we do these things so easily and unconsciously? How are such different actions of the body controlled and conducted? How is the body adjusted to the outside world?

If you study the nervous system you will learn that the brain, spinal cord, and nerves control and move the different muscles of the body. The brain, spinal cord, and nerves are like a telegraph system. The brain and spinal cord are the main office and the nerves are the wires connected with the office. The nerves carry the messages back and forth to the different parts of the body. They provide a complete system of connections and reach every part of our frame.

Our spinal column is strong and yet it is flexible, and out from between the vertebrae come delicate nerves. Nerves go to the heart, the lungs, the stomach, and other organs, performing work of which we are not conscious. Other nerves go to the skin, the muscles, and the joints that we use at any time. Can you imagine how many messages fly from the brain to our muscles and back again every moment, and how quickly they go? They fly much faster than we can think or speak.

Tired Nerve Cells

When we use our nerve cells a great deal they become fatigued or tired. A good nap or a good night’s sleep will rest them. We need to rest tired nerve tissue just as much as we need to rest tired muscle tissue. For our nervous systems we need plenty of fresh, pure air—all day and all night—and long hours of sleep. Sometimes it takes longer for tired nerve cells to recuperate than tired muscles.

We know we have a good vigorous nervous system that is tuned rightly, when:

- We are happy.
- We take defeat manfully.
- We do not cry easily.
- We digest our food well.
- We sleep all night.
- We always play fair and square.
- We get along well with people.

We are seldom cross and irritable.
We do not become grouchy, nor worry.
We are calm and not easily startled or fearful.
We enjoy our meals and are not finicky about our food.
How to Build and Keep a Vigorous Nervous System

Sleep nine to ten hours each night.
Stop our work before we become too tired and exhausted.
Rest five to ten minutes in the middle of some hard work or play before finishing it.
Use one day in seven as a day of rest. This is why unnecessary work is unlawful one day in the week.
Use no tea nor coffee, nor any other stimulating drink.
Avoid especially needless and imaginary worries.
Take a warm bath at bed time.
Take long walks out of doors—hunting nuts or flowers, finding birds, fishing, picnicking.
Always breathe deeply whenever we are outdoors walking, driving, or working. This cleanses the blood which feeds our brain and spinal cord.
Enjoy the beauty of the sky and the sunset, the stars, the clouds, and the music of the wind through the trees. These often bring calm and rest to a tired body.

One very simple method of strengthening the nerves is by sleeping alone. We can rest better and awaken refreshed if we sleep alone on a cot or even on the floor. This will help us to have more air, more freedom, and more relaxation than when sleeping with some older person. Never, never forget that sleep with pure fresh air is the most healthful thing we can do for our tired bodies. Did you ever sleep about 10 minutes and feel like a new person afterwards?

Sometimes a change of work or occupation, if only for five or ten minutes, will rest one. Frequently a brisk five-minute run or walk will refresh and strengthen the nerves.

Outdoor air constantly entering our homes, school rooms, offices, and workshop will help to keep the body strong.

Help others, for thinking and doing for others will keep our minds in good condition.

Would you not like it said of you as it was once said of Frances Havergale, "There was always joy in her face, joy in her words, and joy in her ways?" Only a girl or boy who has slept well and exercised much and who has a strong healthy body and mind can be like this.

Do you have light-weight bed covers? Do you wake up happy? Do you want to get up when called? Have you helped somebody today?

The Clean Mind

A healthy mind is a clean mind. Clean thoughts, clean words, and clean actions are essentials for an all-round boy or girl. A typical 4-H club member (1) always plays fairly, (2) wins without bragging, (3) loses without complaining, (4) does not use bad language, (5) makes the most of his chances to improve himself, (6) does worthwhile and useful things, (7) considers the feelings of friends, (8) is polite to older people, (9)
is considerate of all people, and (10) discovers and develops the best in himself.

The thinking parts of the brain are strengthened and developed by use. We can train our thinking powers to attend to their work without being disturbed too much by what is going on around us. Proper study habits can be developed by practice. Take pride in learning to think for yourself. The world always has need of leaders who can think clearly and act wisely. There are many times when one needs to think clearly and act wisely. Good judgment is necessary every day of our lives.

Temperance

Temperance is a "much-talked-of" subject. It is generally associated with alcoholic drinks. However, the act of temperance is concerned with many things we do in everyday life, in addition to such harmful things as drinking. Temperance may be applied to any pleasure and means moderation and self-control. This would include eating, playing, and working.

Eating, Playing, and Working.

Many times at big dinners and picnics, we are tempted to overeat. This overtaxes our digestive system and does a great deal of harm, while if we eat sanely, carrying out our food-habit principles, it would do us a great deal of good.

In playing and working it is important, especially while growing, to avoid overfatigue and overuse of certain muscles. Exercise is one of the necessities of life, along with food, air, water, rest, and sleep, but it can be overdone.

Alcohol Affects the Body

Alcohol is one of the products of a process called fermentation. It is produced by the action of yeast plants upon vegetable substances containing starches and sugars. Fruit juices, barley, rye, wheat, and a number of other substances are used to produce harmful alcoholic drinks, such as beer, wine, and whiskey.

With some drinkers a moderate amount of alcohol taken into the stomach interferes with the digestion of food. Strong alcoholic liquor or large amounts of weaker drinks inflame the delicate lining of the stomach. If this irritation is very severe, it will cause vomiting. The steady use of alcohol may cause a continually inflamed condition of the stomach. This may impair health because the injured stomach does not act properly in the digestion of food.

Alcohol Affects Judgment and Skill

The brain is the center of our nervous system and very sensitive to the effects of alcohol. Shortly after alcohol is taken into the body, the heart beats faster and there is a general feeling of warmth. The drinker becomes more lively and active for a while. These effects are really due to a "narcotic" or deadening effect that alcohol has upon the brain. The
heart beats faster because alcohol deadens or dulls the nerve cells that control the speed of the heart. Moderate drinkers may gradually become heavy drinkers. Drunkards have not started out to become drunkards. The habit grew upon them until it was very difficult and almost impossible for them to break it. A good safety rule is "Don't begin!"

Alcohol dulls the powers of judgment and self-control and makes persons more likely to do what they would not ordinarily do. Perhaps the most serious effect of alcohol is that persons whose judgment of right and wrong has been dulled by it, often show little regard for the rights and feelings of others.

The brain controls the action of the muscles of the body. It begins to show its effects by interfering with the finer movements of muscles that are needed for acts of skill. It slows them up and makes them less accurate. Later on it affects the movements of the body, as shown in the staggering or unsteady walking of one who has taken enough alcohol to show signs of drunkenness.

Alcohol and Athletics

Games and athletic sports need quick thinking, good control of the muscles, and endurance. Athletes and men who train them know that alcohol interferes with quick and accurate thinking, disturbs the fine control of muscles, and weakens strength and endurance. Athletic coaches will not waste time trying to train a drinker.

Suggestions for Use of This Problem

It would be interesting to have these questions answered by each member at the roll call in a business meeting.

How many hours did you sleep last night?
Did you see some beauty in nature today?
List five reasons why it is important for people to observe temperance:

1. .......................................................... 4. ..........................................................

2. ..........................................................

3. ..........................................................
Red Blood and Fresh Air

Our bodies have a wonderful transportation system to carry fuel and oxygen where it is needed, and to carry off the waste materials that are formed. This work is done by the blood as it travels or circulates around the body.

The Heart and Its Work

The blood is a thin, watery liquid with a reddish color. In order to carry materials where they are needed, the blood circulates constantly around and around the body in a system of soft, hollow tubes called the blood vessels. The blood is kept in motion around the body by the work of the heart.

The heart is a hollow muscle, about the size of your closed hand. It is located in the left side of the chest and is protected from injury by the ribs and the breast bone. When the heart contracts, it sends blood into the blood vessels with force enough to carry it on its journey through the body. In the drawing you will see the four parts, or chambers, of the heart and the work they do.

The heart and blood vessels remind us in a number of ways of a city water supply system. In a city water system, great pumps force the water out into large pipes or mains. These large pipes soon begin to branch and divide so that the water can be distributed to different parts of the city. Smaller and smaller pipes are used for these branches, until the one that enters our house is many times smaller than the large ones that receive the water from the pumps.

In our bodies we have three kinds of blood vessels, the arteries, veins, and capillaries. The bright red blood that leaves the heart on its journey around the body is all pumped into a big artery, called the aorta. This largest artery in the body soon divides into smaller ones. Each of these
branches divides again and again, making a network of arteries that carry bright-red, fresh blood to all parts of the body.

The blood returns in another set of tubes, or vessels, called the veins. Small veins gradually unite with each other on their way to the heart. Thus we have a network of veins which carry dark-red, impure blood from all parts of the body back to the right side of the heart. This dark-red blood then goes to the lungs to be purified by giving up its carbon dioxide and getting oxygen in exchange. The blood, now bright red, goes from the lungs back to the left side of the heart to be pumped out for another journey around the body.

In passing from the arteries to the veins the blood goes through a network of tiny, hair-like tubes called the capillaries. These capillaries are found everywhere in the body. It is almost impossible to cut the skin at any place without causing the appearance of a few drops of blood from these tiny capillaries.

One of the most important things about the capillaries is the thinness of their walls. You will remember that the walls of the capillaries in the lungs are so thin that oxygen and carbon dioxide can pass right through them without exposing the blood to direct contact with air. Digested food materials also pass right through the thin walls of the capillaries in the region of the small intestines, and get into the blood in this way. These materials then leave the blood by passing through the thin walls of other capillaries into the tissues where they are needed. Waste materials also pass from the tissues through the walls of the capillaries into the blood.

The Corpuscles of the Blood

The solid parts of the blood consist largely of very important cell bodies called the corpuscles. They are named according to their color, the red and the white.

The red corpuscles are so tiny that a single drop of blood contains millions of them. They give the blood its reddish color. Under the microscope they look like round, flattened disks, piled up on each other like a stack of coins.

It is the work of the red corpuscles to carry oxygen to all parts of the body. When these corpuscles are carrying oxygen they are bright red in color. After they give up their oxygen to the tissues, they become dark red, or purplish. Thus the color of the blood really depends upon the color of the red corpuscles in it. Many foods are valuable for supplying iron to the body. These include meats (especially liver and lean beef), the yolk of eggs, dried peas and beans, spinach and other leafy vegetables, molasses, figs, prunes, raisins, potatoes, and whole-grain cereals.

The white corpuscles are larger than the red ones, but there are not so many of them. They serve as policemen, or soldiers, for the body and have the power of changing their shape and passing through the capillary walls into the tissues and then back again into the blood stream. When
enemy germs gain an entrance to the body, white corpuscles go to that place in large numbers and attack the germs. As the battle continues, more white corpuscles are produced in the blood to help the body in its fight against the germs. This work of the white corpuscles is very important to our health.

**Exercise and Rest Benefit the Heart and Circulation**

The heart is really a large muscle with four compartments. There is also muscle tissue in the walls of the arteries and veins. Moderate exercise will strengthen the muscle tissue of the heart and blood vessels and help to keep them in a healthy condition. Rest is also beneficial to muscles. The heart obtains some rest between beats.

Overstrain and overwork are injurious to the muscles of the heart. Continued overexercise and overwork do not allow the heart sufficient time for the rest it needs. As a result, the heart is very likely to increase too much in size and really becomes weaker rather than stronger. Remember that moderate exercise and sufficient rest strengthen the heart and improve the circulation of the blood.

**Fresh Air**

Now if pure air is necessary to make red blood and give us energy or "pep" how can we have it night and day at home and at school? Quiet, stagnant air in a room is never pure when folks are living in it. Pure air then must come in from outdoors, and keep coming into our living room, our bedrooms, and our work rooms. Pure air may come into the room constantly through open windows. Good ventilation means fresh, pure air coming into a room, and the foul air going out. Here are some good fresh-air rules:

1. Have fresh air where you live and work. Open all the windows wide before you use the room in which you live and work to permit a complete change of air. Schoolrooms, bedrooms, churches, and offices are usually closed tight when not in use and opening the windows wide will take away that stuffy feeling we are apt to get when entering these rooms.

2. Wear light, loose, porous clothes. The skin should be kept clean and warm and should have air. Clothes should not be tight. As most of us are in well heated houses in winter a large part of the time, we should wear light-weight clothes. Upon going outdoors, put on heavy outer clothes. Always wear clothes made of porous cloth, that is, cloth so loosely woven that you can blow air through it. Tight hats partially cut off the supply of blood from the skin of the head and help to make people bald. A soft hat is best.

3. Have lots of fresh air where you sleep. Some people do not have the chance to work or play in the open air or to get enough fresh air in their work rooms. At night it is different. We spend a third of our time in bed, and while we are asleep we can get plenty of fresh air. All the windows in a bedroom should be opened. The night air will not hurt you.
It is good for people. If you breathe good air all night, you will feel more rested in the morning and better able to do your work.

4. Get out-of-doors. No matter how much air you have in the house, it is not as good as the air out-of-doors. Even if the outdoor air is damp and foggy, it is generally more healthful than stale air indoors. Learn to stay in the open air. If you do not get exercise and sunshine while at work, take time to walk or play outdoors for a part of every day. Fresh air is one of your best friends. It is the enemy of tuberculosis and other diseases you want to escape. Tuberculosis is called a "foul air" disease. It is a disease whose germs grow and thrive in a person who lives in foul, impure, unchanged air. One treatment for tuberculosis consists of rest in the open air, outdoors, day and night. If fresh air is necessary to cure tuberculosis, surely it is a splendid thing to use to KEEP WELL. Should not the Keep Well club boys and girls be the ones to encourage an abundance of moving fresh air at home, school, church, movies, trains, etc? Will you do your part?

Fresh-Air Suggestions

Let some fresh air in all the time. The best temperature for rooms is between 66° and 70° Fahrenheit. Good ventilation may be obtained in several ways:

Open one window at the top and another at the bottom. The good air comes in one window and the bad air goes out the other.

If there is only one window in the room, open it at both top and bottom. If you feel too much air blowing on you, place a board at a slant in front of the open window to send the air up. Such a window board would always be used in winter.

A board may be placed under the lower sash, allowing the fresh air to enter the room between the upper and lower sashes. Thus the air enters above our heads.

A wooden frame the width of the window sash and nine inches high may be made and then covered with muslin. Fit this under the lower sash of the window. The muslin keeps out wind and rain and lets in the pure fresh air.

Suggestions for Club Meetings

Demonstrate ventilation: Two windows, one open at bottom and one at top. One window and one door. Board under lower sash. Muslin screen in window. Sheet stretched across window frame.

Demonstrate chest expansion. Measure chest with tape line placed so that it passes directly through the armpits. See how many inches you can expand your chest.

Determine the air currents in a room. Cut strips of tissue paper one-half inch wide and about twelve inches long and with thumb tacks fasten several strips at the bottom of a window sash and several more at the top of a window. Open the window a few inches at both top and bottom. Close all other windows or doors. Watch the paper strips. What does this tell you about the way fresh air and stale air currents move?
GOD OF THE OPEN AIR

For the comforting warmth of the sun that my body embraces,
For the cool of the waters that run through the shadowy places,
For the balm of the breezes that brush my face with their fingers,
For the vesper hymn of the thrush when the twilight lingers.
For the long breath, the deep breath, the breath of a heart without care,
I will give thanks and adore Thee, God of the open air!

—Henry Van Dyke
Protecting Ourselves and Those Around Us

In all our Keep Well problems we are studying and practicing the things that make and keep our bodies strong. We have gained weight from eating the right food in the right way, from additional sleep, proper exercise, and from living with more fresh air because it is necessary for growth, strong muscles, strong bodies and for beauty.

Nevertheless, there is much sickness and suffering in the world. Let us learn why there is so much and how to fight against it, in our own homes, our schools, and our community.

The Health Game

We have a big game in our country now, the Game of Health—Health for Everybody. A continual fight is made against disease.

Boys and girls give a great deal of help with this game. Is there any way they can help to win the fight for health against diseases which may attack us? Boys and girls can help fight this enemy by finding out: the opponent and his methods of attack, how to weaken the opponent's lines of defense, the best kind of equipment and how to use it, how to keep oneself in good condition, and how to place oneself in the strongest position of defense.

The Opponent

The opponents that must be fought in this game of health are what are commonly called germs or microbes. These organisms are so exceedingly small that we cannot see them without a powerful microscope. There may be millions in a cubic inch. They have interesting shapes, such as spheres, rods, and spirals.

Good Germs or Helpful Bacteria

It is well to understand that there are good as well as bad bacteria. The good ones do very useful work for us. Certain acids formed by milk bacteria cause it to sour and coagulate. This makes the curd in cheese. Bacteria in the soil add large quantities of minerals and nitrates to the soil, without which our farm land would be barren. There are many friendly
bacteria that cause decay and decomposition. Manure and other excreted materials are quickly changed to harmless material by certain bacteria. Decaying animal and vegetable matter feed many plants, thus furnishing food for both man and animals.

**Bad Germs or Bacteria That Produce Disease**

Enemy bacteria cause disease in all animal and plant life. There are about forty varieties of disease bacteria for human beings, for example tuberculosis, diphtheria, and smallpox. In animals there are diseases like blackleg and cholera.

Bacteria live everywhere, but chiefly in the soil, water, food and in the bodies of plants and animals. Like seeds, germs must have food, warmth, moisture, and darkness, in order to grow.

**How Germs Recruit Their Armies**

You may be privileged to go to college and study zoology or bacteriology and will learn how fast germs can increase under favorable conditions. A million of them may develop in a day. Fortunately, conditions are not always favorable. Some increase by breaking in two. This process may be repeated many times an hour; for example, one cell becomes two, each of the two becomes two more, then the four become eight, and soon the number is up in the hundreds and then in the thousands. Would the number be over a million if you multiplied two by two and then continued to multiply the answers by two until you have used two twenty times? Try it. Can you think of small animals that raise large families in a short time? Flies reproduce rapidly.

**How Germs Attack Us**

Do you remember in the story of the Trojan War, how the enemy got inside the walls of Troy hidden in the body of a great wooden horse? In olden times enemies often got into castles hidden in loads of hay, foods, or other good hiding places. Germs are small but they are tricky and often use such methods, too. Flies and mosquitoes are modern Trojan horses, which germs use to reach us. Germs also hide in food, water, and air, and get into our bodies by way of the mouth, nose, or through broken skin, and then they attack our weak spots. They may attack only one spot, as in a pimple or a boil, or they may spread over the whole body and make us sick, as in the case of scarlet fever or typhoid fever. Copies of Extension Circular 1106, “Control Methods for Household Pests” may help to fight disease germs. Copies may be had from your County Extension Agent.

**Infectious Diseases**

We have found that the easiest pathways for disease to enter the body are the nose, mouth, and throat. These have been called the “Gateways to the Body.”

You remember also we learned that the mucus in the nose and the hairs (cilia) prevent germs from getting into the throat and also that
frequent cleaning of the teeth prevents other germs from getting into the throat, tonsils, and stomach; however, the enemy germ is so strong and powerful he sometimes gets into us in spite of our good care to keep nose, throat, mouth, and food clean.

The body has its own protective substances. Sometimes these are not enough to fight germs successfully and for this reason scientists, by studying and experimenting, have found vaccines which increase the protective substances in our blood and help to win the fight for health. Vaccines, serums, and antitoxins have been made for both human and animal diseases. By the scientific use of these, the body builds up resistance to certain diseases. Some diseases for which they are given are diphtheria, pneumonia, colds, influenza, whooping cough, typhoid, smallpox and meningitis.

Diphtheria is one of the most fatal diseases because of the difficulty to distinguish it in its early stages from other forms of sore throat. We get it directly from some person who has the germ in the nose, throat, or mouth. It is often carried in the throats of well people. A doctor sometimes has to isolate a well person because he has the germs which may give diphtheria to others the same as though he were sick. Never delay or be careless with a sore throat. How many reasons can you give for isolating every person with a sore throat?

Drinking cups, unclean hands, towels, and spit all carry these germs. The germ is so tiny that only a microscope can discover it. This is one disease that scientists are able to combat in a marvelous way, with antitoxin. The protective antitoxin should be given very early, to be successful. If given too late the enemy germs grow very strong and greatly lessen the patient's chance of recovery. Sometimes a paralysis of the heart, or other muscles, follows diphtheria. It is wise to keep quiet many days to rest the heart.

The Schick test is a method that may be used to find out whether one has the substance in the body that protects against diphtheria. If none is found, then toxin-antitoxin treatment may be given. Toxin-antitoxin helps to protect the body from diphtheria for several years.
Toxin-antitoxin will not harm you. Your arm may be slightly sore from the prick, and you may feel out-of-sorts for a day, but there will be no serious after-effects. Most people do not have even these symptoms. Go to your family physician for the toxin-antitoxin treatment. This is given once each week for three weeks. After a short time, from three to six months, you will be safe from diphtheria.

Scarlet fever is another disease that enters the body by the nose, mouth, and throat. The throat is sore and red and the skin generally becomes a bright scarlet. There is usually much fever. As the skin is diseased it cannot throw off waste; this makes the work of the kidneys doubly hard. All nose and throat discharges and the scales from the skin should be burned or disinfected thoroughly. The urine should be examined often. The body should not be chilled during the disease.

Sometimes scarlet fever appears in a very mild form. A mild case is serious because it is not always discovered, and no care is given the child. Severe results may come to the child from a mild case and the danger of exposing others is even greater because the patient may not be sick.

If vaccination for smallpox were generally practiced, little or no smallpox would appear. Many good authorities believe that it is absolutely preventable. If a baby is vaccinated when about six months old and then every seven years there is little danger of ever contracting the disease.

Whooping cough and measles are nose and throat diseases. These two diseases kill hundreds of babies and little children every year and many boys and girls under ten years of age. The lives of many of these children could have been saved if the person with the disease had been quickly isolated and properly nursed. Isolation of the sick will prevent well children from being exposed to the disease.

Sore throats often come at the beginning of many communicable diseases. When anyone in your family has a sore throat try to get him to stay in bed, in a room by himself, so that the disease will not spread to others of the family. It is dangerous and selfish for a mother to take a boy or girl who has any communicable disease or even symptoms of one, to a neighbor’s home, to Sunday school, church, any other public meeting, on a train, or allow others to visit the home.

Children with measles will have eyes and nose full of mucus and a sore throat, before the rash appears. They should be kept quietly in the house and not allowed to carry the disease to others. Why are measles and whooping cough dangerous to little children? Very often pneumonia and bronchitis come with them or follow them, because the body is weak. Whooping cough and measles kill four times as many children as scarlet fever and diphtheria. There is more carelessness with these diseases than with scarlet fever and diphtheria.

Colds in the head are very contagious. Our hands and nails can easily carry germs from our mouth, nose, or handkerchief. It is best to use paper or a cloth when we blow our nose or spit. Burn the cloth or paper.
Wash the hands and face often. Never spit on the floor or sidewalk. After people spit the germs may be carried on the shoes into our homes. Here they endanger the babies as they creep around and children as they play on the floor. Another way to avoid colds and sore throats is never to use cups, forks, spoons or towels of another.

Mary had a drinking cup,
'Twas shiny bright and new,
She passed it on to Johnny,
And Willie used it too.
They got a drink, but sad to tell,
They got poor Mary's cold, as well!

It has been stated that the dreaded disease yellow fever killed in the United States 1,000,000 people in 115 years. How many a year was this on an average? Yellow fever has been conquered by sanitation. Tuberculosis is a disease which may be conquered by personal hygiene and sanitation, yet it is estimated that it causes the death of 150,000 men, women, and children each year in the United States. How many would this be in 115 years? Tuberculosis means a continuous amount of needless suffering and misery, not only to the one who is sick but to all the family as well.

The lives of many of these people could have been saved if they had heeded the results of a competent physician's thorough physical examination. By a proper treatment with food, rest, and fresh air most cases of tuberculosis are now being cured, if taken sufficiently early. Tuberculosis can only be contracted by coming in contact with the tuberculosis germ.

The principal sources of infection come from carelessness or ignorance on the part of someone with the disease or through the consumption of foods from infected animals. Statistics show that one-third of all the deaths from tuberculosis are between 20 and 45 years of age! What a pity not to have these years especially useful in every man's or woman's life, and to have them lost by weakness or death. Tuberculosis need not develop if we keep our bodies well aired, well nourished, and give them sufficient rest with healthful sleep and have frequent physical examinations.

Typhoid, which enters the body through the mouth and develops in a certain part of the intestines, used to be very fatal among soldiers. In 1911 the United States vaccinated 15,000 soldiers in camps in Texas. Only one case of typhoid developed among these soldiers.

Bad after-effects of all these diseases are now known to cause various organs of the body to degenerate in middle life. Some of these diseases are Bright's disease, diabetes, heart disease, and hardening of the arteries. This is another good reason for avoiding infectious diseases in childhood. Do your part in keeping away from others when you are sick. Do not give anyone a chance to catch a cold from you.
Preventing Spread of Disease in the Family

Isolate the patient. Keep him away from others.
Keep the throat clean from mucus.
Burn all nose and throat discharges.
Wash the hands, and clean the nails often.
If you have a sore throat or cold, wear a handkerchief over the nose and mouth when preparing food.

Preventing Spread of Disease in the Community

Kill germs by burning all mucus from nose or throat when having a cold, sore throat or any infectious disease.
Kill germs by disinfectants.
Prevent well people from coming near the sick, excepting to nurse them.
Establish tentative isolation until disease is diagnosed.
Have early diagnosis by physician and early quarantine.
Maintain strict isolation of sick person and room.
Save the lives of others by doing your part to prevent the spread of disease. Do not go on trains, street cars or even to the movies until all danger of spreading the disease is past.
For the protection of the public health the Nebraska State Laws require the diseases mentioned to be quarantined and placarded.

Other Ways to Fight Disease

Clean, well-kept homes, sanitary outhouses and yards, clean dishes and cooking utensils, clean air indoors, and clean pure drinking water are ways to fight disease.
Where can your well water be tested? Where can milk be tested for impurities?
Use individual towels and drinking cups at home and at school. Use vaccines for protection.

CLEANLINESS

A little fly flew by the door,
And laid some eggs, then laid some more;
The eggs hatched out in a very few days,
And the little flies flew in different ways;
Then, they laid eggs and laid some more;
And the same things happened that happened before;
And the husky fly that started it all,
Was alive and kicking till late in the fall.
She called a reunion of all her descendants,
And they wrote a Declaration of Independence.
To give you their names would be tediously long,
For her descendants numbered five trillion strong.
Body Cleanliness, Outside and In

After we have studied about the use and care of the skin we will realize that it is a very important part of our body. At first one can hardly realize how important it is. It helps to eliminate the waste matter from our bodies, and for this reason it is very necessary that the pores be kept clean.

There is a pretty but sad story of olden days that tells of a lovely child whose body was covered with gold leaf to beautify a pageant and bring glory to the selfish king of the land. In a few hours the child died. His skin was unable to “breathe” or throw off waste matter.

The Skin

If you look in a textbook on physiology you will see a picture of the cross section of the skin, highly magnified. You will find that the true skin is the dermis. This contains the sweat glands or pores, and also the oil or sebaceous glands. There are also fat and nerves in the dermis. The sweat glands are so numerous in our skin that if placed end on end they would cover a distance over twenty-eight miles. How very important their work must be.

The oil glands secrete an oily substance that keeps the skin soft and pliable. There are very many in the face but none in the palms of the hands or the soles of the feet.

The epidermis is the outer covering of the true skin. It is this skin that swells up as a blister. Our nails and hair are parts of the epidermis.

Uses of the Skin

It is a protective covering of the body.
It throws off or eliminates waste substances.
It is an organ of touch. Heat, cold, and pain are felt by the skin.
It regulates the heat of the body by perspiration.

Care of the Skin—Bathing

Because there are many disease germs from the eyes, nose, mouth, pores, it is very necessary to keep the skin clean. For this reason you can see that the entire body needs to be bathed at least twice a week.

Bathing the body in warm water and with a pure, mild soap makes us comfortable, prevents unpleasant odors, regulates the heat of the body, stimulates the sweat glands, and removes disease germs. Can you think of any other reason for bathing? Baths may be taken in the tub, under a shower, or in a washbowl or basin with a wash cloth.

There are different kinds of baths: the hot bath, the warm bath, the tepid bath, the cold plunge, the cold “sponge”, the dry rub, and the oil rub.

Because there are many disease germs from the eyes, nose, mouth, or body rubbed off on the towel, or brush, it is wise and much safer to
have individual towels, our own brush and comb, and nail files. At school it is wise also to have our own soap.

**How Often and When to Bathe**

Many persons enjoy a daily tub bath for its refreshing and comforting qualities. It insures constant cleanliness, especially if one is exercising or does work which brings out perspiration. Hot water and soap keep the skin in a clean condition. Hot water opens the pores. Always use a cold shower, or cold splash after a hot bath, to contract the pores. A cool tub or cold sponge bath in the morning is stimulating and invigorating. Rubbing with a coarse towel vigorously gives a warm and pleasant feeling after the cold water. A cold bath helps one to have stronger and firmer flesh and a greater freedom from cold. What reasons can be given for not bathing soon after a meal? How could a shower bath be constructed in your home?

Warm water with soap is the "happy medium" and perhaps the safest bath for everyone to take often. At least *two a week* are necessary if we are to have our bodies clean. It may be inconvenient to have a daily tub or sponge bath, but everyone can have a daily dry rub with a coarse towel. This removes the dry particles of skin and the perspiration and stimulates the circulation of the blood.

An oil (sweet or olive oil) rub is useful if the skin is dry and scaly or if soap irritates the skin. A good substitute for soap is a cupful of ground bran or meal sewed in a coarse cloth. This may be used when the skin is irritated by soaps. Only a pure, mild soap should be used. Is bathing just as necessary in the winter time?

A tablespoon of baking soda added to the bath water helps to remove body odors and will also relieve prickly heat in the summer time.

**Body Odors**

The odor of perspiration is unpleasant to everyone but may be easily controlled. Of course, frequent bathing is the best remedy for body odors, but it may become necessary to use some other means of checking this unpleasant situation. Common baking soda dusted like powder in the armpits with a soft cloth or powder puff will overcome unpleasant odors from perspiration. Since perspiration is a means of ridding the body of waste matter, it is unwise to use anything that will stop perspiration entirely.

Foot odors are caused by perspiration and by not keeping the feet and stockings clean. A daily foot bath in tepid water and clean stockings or socks are needed if you are troubled with excessive perspiration. Wash with soap and water, dry, use rubbing alcohol, and let evaporate. Use talcum powder on the feet and between the toes. If this does not keep down the odor, try the following.

| 1 T. formaldehyde | 1 gal. tepid or cold water |
Soak the feet in this twice a week and dry well. Remember that formaldehyde is a poison.

**Care of the Hands and Nails**

Lukewarm water and mild soap are best for washing the hands, as too cold or too hot water will redden and roughen the skin. Use a cloth and rub up and down with the muscles to increase circulation. Rinse well and wipe thoroughly dry, using the same up-and-down motion as in washing.

Stains on the hands may be removed as follows: Moisten one-half cup of cornmeal with vinegar until a paste is formed. Rub this over the hands. After a few minutes wash off with clear water.

Chapped hands will need a good hand lotion which may be made as follows:

\[
\frac{1}{4} \text{ oz. gum tragacanth (trag'akanth)} \quad 1 \text{ pt. rain water}
\]

Dissolve the gum tragacanth in the rain water and let stand overnight.

In the morning add:

- 4 oz. glycerine
- 4 oz. witch hazel
- 4 oz. bay rum
- Few drops of perfume if desired

Mix thoroughly, place in a corked bottle and shake at frequent intervals.

The nails need careful cleansing. Scrubbing the nails with a brush will help keep them clean. Cutting or filing nails in oval shape makes them more useful to the fingertips. Why? Biting the nails is a bad nervous habit, which a boy or girl can overcome by using will power. Some nails are dry and break easily. It is wise to rub vaseline or olive oil into dry nails once or twice a week to soften them. The cuticle at the base of the nails may be pushed back while one is washing and wiping the hands. Do not cut the cuticle. Massaging will help to bring out the halfmoons at the base of the nails.

**Suggestions for Demonstrations**

Show how to wash the hands properly, rubbing up and down the muscles. Pushing back the cuticle on finger nails. Filing and shaping the nails. Mixing a hand lotion. Making a bleach to remove stains.

**Care of the Hair**

The hair needs shampooing every two weeks. Doing this too often may make the hair too dry. Here is a recipe for soap:

\[
2 \text{ oz. pure Castile soap} \quad 1 \text{ pt. warm water}
\]

Dissolve the soap in the water. Do not boil soap for shampoo as boiling brings out the alkali. Rinsing the hair is important after a shampoo. Three rinses are needed to remove all the soap from the hair: First, rinse in clear warm water. Second, (blondes) add the juice of a lemon to the
warm water (this bleaches the hair as well as making the hair soft). Brunettes should add a half-cup of vinegar to the warm rinse water. Third, rinse in clear cool water to remove all of the lemon juice or vinegar.

For oily hair heat one cup of table salt but do not get it so hot it will burn the scalp. Loosen the dandruff with a comb, then rub on the salt. Rub in well and brush out. Rub the scalp with a towel and apply witch hazel.

For dry hair apply a half-cup of olive oil to the scalp. Wring a towel out of hot water and wrap it around the head to steam the oil into the scalp. Leave the oil on overnight and shampoo the next day.

Dandruff is really a disease of the scalp and should not be neglected as it will cause the hair to fall. Here is a simple treatment for dandruff.

\[ \frac{3}{4} \text{ c. kerosene} \quad \frac{1}{2} \text{ c. castor oil} \]

Apply to the scalp, being careful not to get it on the hair. Use one treatment and then shampoo. If the hair is dry use olive oil as suggested for dry hair before shampooing a second time.

Internal Cleanliness

Constipation is the clogging of the large intestine with waste from the food. It causes headache, dizziness, sleepiness, nervousness, nausea, foul breath, pimples, and many other ills. Perfect cleanliness inside the body is necessary for beauty and health. Constipation is often the cause of bad temper and unhappy disposition. Keep Well club boys and girls should not allow this bad habit to spoil their lives. It not only makes us uncomfortable but makes us irritable with other people.

How to Prevent Constipation

Certain exercises of the body such as walking, running, ball playing, squatting, deep breathing, lying on the back, and raising the abdomen ten times twice a day may prevent constipation. Certain foods help prevent constipation, for example cooked and raw fruits, coarse vegetables, and coarse grains used daily. Perhaps the simplest cure is plenty of pure cool water. Two glassfuls in the early morning before breakfast will often help prevent constipation. Cold water stimulates the outside skin and it also stimulates the inside of the body. It cleanses the stomach and intestines. Lemon juice in the water before breakfast is good. Six to eight glassfuls of water during the day is the least amount any of us should drink. Dates, figs, and prunes eaten at bed time generally help constipation. Bran used in bread, muffins, breakfast food or on other breakfast foods also helps.

Pimples and blackheads very often are caused by waste matter clogging ducts of sweat and oil glands. A pimply skin by all means should be kept clean, and, of course, constipation must be corrected.

If cleanliness inside and outside the body does not remedy pimples, then consult your family physician to see if there is some other source of trouble.
Suggestions for Use of This Problem

Demonstrate an individual drinking cup. Rather than use a cup with others, find a piece of clean paper, and fold one as directed below:

Cut a square. Mark A, B, C, D. Fold D over to B. Fold C up to meet line A-D having C-E parallel to line B-F. Fold A-C over on C-F. Fold the triangle C-B-F down on the back. Fold the C-D-F triangle toward the front, having it slip into the opening at C-F.

Demonstrate shampooing the hair; treatment for oily hair, dry hair, and dandruff; exercise suitable for the relief of constipation.