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Fats in the Diet

Linda Boeckner, Extension Nutrition Specialist

Nutrition professionals encourage adults and children above age two to select diets low in total fat, saturated fat and cholesterol. To reach recommended levels of 30 percent of calories from total fat and 10 percent of calories from saturated fats, many Americans will have to cut out one-fifth of their current fat intake.

Methods to reduce total fat intakes include low fat cookery such as boiling, broiling, steaming, stewing, baking and roasting. Consumers may also trim visible fat from meat and poultry products and limit fat spreads, dressings, gravies and other sauces. Another way to achieve lower total fat intake is to take stock of fat-rich desserts and snack foods. Substitute fruits and vegetables for rich desserts and oily snacks instead.

Reaching Goals for Saturated Fat

When you reduce total fat, you will likely reduce the saturated fat portion as well. To be sure, pay attention to whether the foods you eat have more saturated, polyunsaturated, or monounsaturated fatty acids in them. Saturated fatty acids raise blood cholesterol levels, one of the major risk factors for heart disease. Polyunsaturated and monounsaturated fatty acids lower blood cholesterol levels.

Some evidence suggests that not all saturated fatty acids produce a blood cholesterol raising effect. Stearic acid is an example of such a saturated fatty acid. As for fats in food, however, consumers should be aware that more than one type of saturated fatty acid will be present. Foods that are rich in stearic acid will also likely contain saturated fatty acids that do raise blood cholesterol levels. Until further study shows otherwise, the general recommendation still stands to limit saturated fats in the diet.

What's in Fat

Food fats are a combination of saturated, monounsaturated and polyunsaturated fatty acids. Nutritionists often classify fats according to the type of fatty acid present in the greatest amount. Thus, some fats like beef tallow, butter, coconut, and palm kernel oils are known as saturated fats. Products such as corn, soybean, sunflower, and safflower oils are called polyunsaturated fats. Canola, olive and peanut oils are

known for their monounsaturated fatty acid content.

In general, saturated fats are solid at room temperature. They are more stable than unsaturated fats and have less chance of breaking down or becoming rancid over time. That is why saturated fats are often the candidate of choice for commercial frying.

Unsaturated fats, both polyunsaturated and monounsaturated, are liquid at room temperature. We typically think of vegetable oils as good sources of polyunsaturated and monounsaturated fats, and low in saturated fats. The exceptions are coconut and palm kernel oils. They contain more than 80 percent saturated fatty acids by weight. Nutritionists recommend that both polyunsaturated and monounsaturated fats be kept at approximately 10 percent of calories.

Vegetable shortenings are a blend of many types of vegetable oils. The oil becomes solid or firm through the process of hydrogenation. The result is a product that has a lower polyunsaturated fatty acid content and a higher saturated fatty acid content than liquid vegetable oils. Hydrogenation also forms monounsaturated fats that have a different physical arrangement. These trans monounsaturated fatty acids are similar in stability to saturated fatty acids. Research shows their effect on blood cholesterol levels is variable. From ten percent to almost one-third of margarines and hydrogenated vegetable shortenings are trans fatty acids.

Vegetable shortenings are less desirable than vegetable oils as a food fat because of their fatty acid makeup. Similarly, margarines are also blends of liquid vegetable oils and partially hydrogenated vegetable oils. To keep saturated fatty acid content to a minimum use margarine that lists liquid vegetable oil first in its ingredient label. In general softer margarines are a better choice than those which are harder.

Much Ado About...

Fish oils garnered much attention during the 1980s. At first glance they appeared to reduce heart disease risk by lowering fat levels in the blood. Fish oils contain highly unsaturated fatty acids. They are known as omega-3 fatty acids.

In studies about the relationship of fish oils and coronary heart disease risk, researchers noted some unfavorable effects. One of the predominant effects was a delayed blood clotting time. Researchers also found that high intakes of omega-3 fatty acids did not always reduce blood cholesterol levels.

It is premature to say that individuals would benefit by adding fish oil capsules to their diets. In fact, there are some potential hazards. Instead, consumers may choose to include omega-3 fats by selecting appropriate food sources. Cold, deep water fish such as salmon, mackerel, tuna, herring, and sablefish; and cold, fresh water fish such as trout are possible choices.

Read the Labels

Reading labels is important. To tackle saturated fats in your diet, identify and limit using products that show a higher saturated fatty acid content. Words on an ingredient label that indicate a higher saturated fat content are: hydrogenated vegetable fat, partially hydrogenated vegetable oil, lard, coconut oil, and palm kernel oil. Many of the commercially made crackers,

Table 1. Recommended Caps on Total and Saturated Fat Intake at Various Caloric Levels.

<i>Total Calories</i>	<i>Total Fat (g)</i>	<i>Saturated Fat (g)</i>
1200	40	13

cookies, baking mixes, breakfast cereals and breakfast bars contain these ingredients. Read the nutrition label to find the product with the least grams of saturated fat.

1500	50	17
1800	60	20
2100	70	23
2400	80	27
2700	90	30
3000	100	33

The grams of total and saturated fats to meet fat guidelines at various caloric levels are shown in Table 1. Table 2 provides a look at the saturated, monounsaturated, and polyunsaturated fatty acid and cholesterol contents of some common fats. The fats are in order from the lowest to the highest saturated fatty acid content.

Table 2. Fatty Acid and Cholesterol Composition of Some Common Fats

	<i>Saturated g/Tbsp</i>	<i>Monounsaturated g/Tbsp</i>	<i>Polyunsaturated g/Tbsp</i>	<i>Cholesterol mg/Tbsp</i>
Canola Oil	1.0	8.2	4.1	0
Safflower Oil	1.2	1.6	10.1	0
Sunflower Oil	1.4	2.7	8.9	0
Corn Oil	1.17	3.3	8.0	0
Olive Oil	1.8	9.9	1.1	0
Sesame Oil	1.9	5.4	5.7	0
Soybean Oil	2.0	3.2	7.9	0
Peanut Oil	2.3	6.2	4.3	0
Vegetable Shortening	3.2	5.7	3.3	0
Chicken Fat	3.8	5.7	2.7	11
Lard	5.0	5.8	1.4	12
Beef Tallow	6.4	5.3	0.5	14
Palm Oil	6.7	5.0	1.3	0
Butter	7.1	3.4	0.6	31
Palm Kernel Oil	11.1	1.5	0.2	0
Coconut Oil	11.8	0.8	0.2	0

Source: Composition of Foods. Fats and Oils. AH No. 8-4. U.S.D.A.

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