

## FATS IN THE DIET

### AHA Scientific Position

The major kinds of fats in the foods we eat are saturated, polyunsaturated, monounsaturated and trans fatty acids. Saturated fats and trans fats raise blood cholesterol. Dietary cholesterol also raises blood cholesterol. A high level of cholesterol in the blood is a major risk factor for coronary heart disease, which leads to heart attack, and also increases the risk of stroke.

### AHA Recommendation

- Limit foods high in saturated fat, trans fat and/or cholesterol, such as whole-milk dairy products, fatty meats, tropical oils, partially hydrogenated vegetable oils and egg yolks. Instead choose foods low in saturated fat, trans fat and cholesterol. Here are some helpful tips:
  - Eat a variety of fruits and vegetables. Choose 5 or more servings per day.
  - Eat a variety of grain products, including whole grains. Choose 6 or more servings per day.
  - Eat fish at least twice a week, particularly fatty fish.
  - Include fat-free and low-fat milk products, legumes (beans), skinless poultry and lean meats.
  - Choose fats and oils with 2 grams or less saturated fat per tablespoon, such as liquid and tub margarines, canola, corn, safflower, soy bean and olive oils.
- Saturated fat plus trans fat intake should not exceed 10 percent of total calories each day for healthy people. Saturated fat should be less than 7 percent of total calories for people with coronary heart disease, diabetes or high LDL cholesterol.
- Total fat intake (saturated, trans, monounsaturated, polyunsaturated) should be adjusted to fit total caloric needs. Overweight people should consume no more than 30 percent of total calories from fat.

### What are recommended amounts of total fat and saturated fat in grams?

The recommended amounts depend on the amount of calories you use each day. To find that number, multiply your body weight in pounds by 15 (if you're active). This means if you weigh 200 pounds, you expend about 3000 calories (200 x 15) calories in an average day. If you're sedentary, multiply your weight by 13 to find the calories you expend.

### What are saturated fatty acids?

Saturated fatty acids have all the hydrogen the carbon atoms can hold. Saturated fats are usually solid at room temperature, and they're more stable — that is, they don't combine readily with oxygen. **Saturated fats and trans fats are the main dietary factors in raising blood cholesterol.** The main sources of saturated fat in the typical American diet are foods from animals and some plants.

### What are trans fats?

Trans fats are unsaturated, but they can raise total and LDL ("bad") cholesterol and lower HDL ("good") cholesterol. Trans fats result from adding hydrogen to vegetable oils used in commercial baked goods and for cooking in most restaurants and fast-food chains.

- Cookies, crackers and other commercial baked goods made with partially hydrogenated vegetable oils may be high in trans fat.
- French fries, donuts and other commercial fried foods are major sources of trans fat in the diet.

Fats That Raise Cholesterol	Sources	Examples
Dietary cholesterol	foods from animals	meats, egg yolks, dairy products, organ meats (heart, etc.), fish and poultry
Saturated fats	foods from animals	whole milk, cream, ice cream, whole-milk cheeses, butter, lard and meats
	certain plant oils	palm, palm kernel and coconut oils, cocoa butter
Trans fats	partially hydrogenated vegetable oils	cookies, crackers, cakes, French fries, fried onion rings, donuts

### What are hydrogenated fats?

During food processing, fats may undergo a chemical process called hydrogenation. "Hydrogenate" means to add hydrogen or, in the case of fatty acids, to saturate. The process changes a liquid oil, naturally high in unsaturated fatty acids, to a more solid and more saturated form. The greater the degree of hydrogenation, the more saturated the fat becomes. Many commercial products contain hydrogenated or partially hydrogenated vegetable oils.

Recent studies suggest that these fats may raise blood cholesterol. **Hydrogenated fats in margarine and other fats are acceptable if the product contains liquid vegetable oil as the first ingredient and no more than 2 grams of saturated fat per tablespoon.** The fatty acid content of most margarines and spreads is printed on the package or label. Liquid and soft tub margarines contain little saturated fat or trans fat.

### What are polyunsaturated and monounsaturated fatty acids?

Polyunsaturated and monounsaturated fatty acids are two types of unsaturated fatty acids. Unsaturated fats have at least one unsaturated bond — that is, at least one place that hydrogen can be added to the molecule. They're often found in liquid oils of vegetable origin.

- Polyunsaturated oils are liquid at room temperature and in the refrigerator. They easily combine with oxygen in the air to become rancid. Common sources of polyunsaturated fats are listed in the table below.
- Monounsaturated oils are liquid at room temperature but start to solidify at refrigerator temperatures. See the table below for sources.

Polyunsaturated fats tend to help your body get rid of newly formed cholesterol. Thus, they keep the blood cholesterol level down and reduce cholesterol deposits in artery walls. Recent research has shown that monounsaturated fats may also help reduce blood cholesterol as long as the diet is very low in saturated fat.

**Both types of unsaturated fats may help lower your blood cholesterol level when used in place of saturated fats in your diet. But you should be moderate in eating all types of fat, because fats contain more than twice the calories of either protein or carbohydrate.**

Polyunsaturated or monounsaturated oils — and margarines and spreads made from them — should be used in limited amounts in place of fats with a high saturated fat content, such as butter, lard or hydrogenated shortenings. Choose fats and oils that contain less than 2 grams of saturated fat per tablespoon.

Fats That Lower Cholesterol	Sources	Examples
Polyunsaturated	certain plant oils	safflower, sesame, soy, corn and sunflower-seed oils, nuts and seeds
Monounsaturated	certain plant oils	olive, canola and peanut oils, avocados