

Heart Disease and You— Facts about Food Choices



Smart food choices can decrease risk for heart disease.

Eat less saturated fat and cholesterol

The amount of saturated fat you eat has a much greater impact on blood cholesterol levels than does the amount of cholesterol you eat. Thus, the best way to reduce or manage blood cholesterol levels is by controlling your intake of saturated and *trans* fats.

The average American eats about 65 to 100 grams (g) of fat and about 200 to 350 milligrams (mg) of cholesterol daily. Recommended daily intakes are about 65 g of fat and 200 to 300 mg of cholesterol.

Definitions to remember

CHOLESTEROL—Cholesterol is an essential part of cell membranes in humans and animals. Only foods of animal origin, such as milk, cheese, meat, fish, poultry, and eggs contain cholesterol. All animal muscle is similar in cholesterol content. Fish, chicken, turkey, beef, and pork each have about 20 milligrams (mg) of cholesterol per ounce.

FATS—Fat insulates the body's organs and transports fat-soluble vitamins. Some foods, such as peanut butter and other plant-based foods, may be high in fat but contain no cholesterol.

Saturated fat tends to come from animal sources and is usually solid at room temperature. However, some plant sources, such as coconut and palm oils, also contain saturated fat.

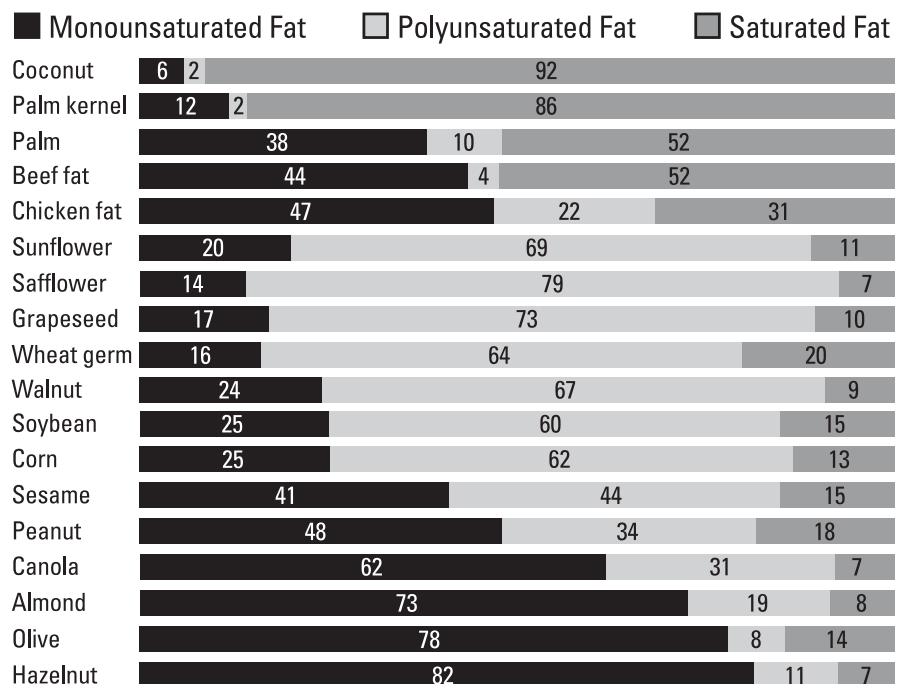
Trans fats are formed through a process called hydrogenation—turning liquid fats into solid fats at room temperature. Hydrogenation helps increase the shelf life of a product, but too many *trans* fats in the diet increases total and LDL cholesterol levels. Crackers, fried foods, cookies, bakery items, margarines, and other snack foods often have high amounts of *trans* fats. All food labels must

include *trans* fat amounts by January 1, 2006.

Polyunsaturated fats are considered heart healthy because they help lower cholesterol. Cooking oils such as soybean, corn, safflower, and sunflower oils are all polyunsaturated fats and are recommended over saturated and *trans* fats. Polyunsaturated oils are liquid at room temperature.

Monounsaturated fats are heart healthy too because they lower cholesterol, particularly LDL levels. Olive, canola, peanut, almond, and walnut oils are all types of monounsaturated fats and are recommended over the other fats.

Oil Comparison



Tips for heart-healthy eating

Choose low-fat foods often

Low-fat foods are generally crisp, watery, dry, or chewy—such as fruits, vegetables, dried beans and peas, skim and low-fat dairy products, breads and cereals, turkey, chicken, fish, and other

lean meats. Make sure you choose these low-fat foods often.

High-fat foods are generally smooth, oily, thick in texture, creamy or greasy—such as cheeses, butter, margarine, salad dressing,

french fries, fried fish or chicken, and luncheon meats. Many high-fat foods also are high in sugar, including cakes, cookies, pies, doughnuts, and premium ice cream. Choose these high-fat foods less often.

High-fat choice	Lower fat choice
luncheon meats	turkey, chicken, tuna packed in water
commercial chips and cheese puffs	unbuttered popcorn, pretzels
whole milk	skim milk, soy milk
non-dairy creamers	skim milk or 1% milk
ice cream	sherbet, ice milk, low-fat frozen yogurt
one whole egg	two egg whites
hard cheese such as cheddar, Swiss, or American	low-fat cottage cheese, part-skim mozzarella, farmer's cheese
cream cheese	Neufchatel or lite cream cheese
sour cream	mock sour cream (blenderized low-fat cottage cheese and lemon juice) or low-fat yogurt
buttery crackers	soda crackers or whole wheat crackers
mayonnaise	light mayonnaise
vegetable oil (pan frying)	nonstick vegetable spray (pan frying)
butter or margarine	margarine with no <i>trans</i> fatty acids
creamed cottage cheese	part-skim cottage cheese
cream	evaporated milk
commercial whipped topping	homemade whipped topping (made with nonfat dry milk powder)
saturated fat	polyunsaturated or monounsaturated fat
lard, shortening, or bacon grease	vegetable oil
stick margarine or butter	tub margarine (does not work well for baking)
regular ground beef	leanest ground beef

Use low-fat cooking methods

- Broil, boil, steam, poach, braise, bake, and roast rather than fry.
- Skim fat from meat juices before adding to stews, soups, and gravies. (Chilling allows the fat to harden for easier removal.)
- Drain cooked-out fat from foods whenever possible.

- Remove poultry skin and trim all visible fat off meat and poultry before cooking. (Removes a significant amount of the saturated fat, but only some of the cholesterol.)
- Serve high-fat dressings, gravies, or sauces on the side.

- Flavor vegetables and pastas with herbs, lemon, or onion rather than butter or cheese sauces.
- Use less fat than is called for in a recipe. Generally, fat can be reduced by up to one-third or one-half the original amount.

Use fewer saturated fats and more unsaturated fats

Type of fat	Effect on blood cholesterol	Recommendation
Saturated [solid fats, animal fats, hydrogenated oils, tropical oils (palm, coconut)]	raises total cholesterol raises "bad" cholesterol (LDL)*	7-10% of calories
Trans [partially hydrogenated oils]	raises total cholesterol raises "bad" cholesterol (LDL)* reduces "good" cholesterol (HDL)**	as minimal as possible
Polyunsaturated [liquid plant oils (corn, soybean, safflower)]	reduces total cholesterol reduces "bad" cholesterol (LDL)* reduces "good" cholesterol (HDL)**	less than 10% of calories
Monounsaturated [olives, olive oil, canola oil, nuts, nut oils, avocado]	reduces total cholesterol reduces "bad" cholesterol (LDL)* no effect on "good" cholesterol (HDL)**	10-15% of calories

* high levels are associated with heart attack risk **high levels are associated with reduced risk for heart disease

Eat more soluble fiber

Many foods of plant origin contain a mixture of different types of fiber. The soluble fiber that is found in foods, such as oats and dried beans and peas, lowers LDL cholesterol. Nutritionists recommend eating 20 to 35 grams of fiber (5 to 10 grams soluble plus 15 to 25 grams insoluble fiber) daily. One 1/2 cup serving of cooked dried beans or peas has 4 to 8 grams of soluble fiber. One cup of uncooked oatmeal contains about four grams of soluble fiber.

Eat more fish

Fat in fish or fish oil contains unsaturated fatty acids or omega-3 fatty acids, which are good for the heart. People eating at least two or three servings of fish a week have significantly fewer heart attacks and strokes, plus lower blood pressure than people who eat none. Baked, broiled, or poached fish is a healthier choice than fried fish.



Use more soy products

Soy consumption appears to protect the interior lining of blood vessels where heart disease begins. Scientists aren't yet sure which component (soy protein, soy isoflavones, unknown components or any combination thereof) is responsible for these heart healthy effects. The current recommendation is 25 grams of soy protein a day. Tofu, soy beverages, cereals, cereal bars, powders, shakes, and flours with added soy are all available in grocery stores.

Food marketers can use the following claim, or a reasonable variation, on soy products: "Diets low in saturated fat and cholesterol that include 25 grams of soy protein a day may reduce the risk of heart disease. One serving of (name of food) provides __ grams of soy protein." To qualify for the claim foods must contain per serving:

- 6.25 grams of soy protein
- low fat (less than 3 grams)
- low saturated fat (less than 1 gram)

- low cholesterol (less than 20 milligrams)
- sodium value of less than 480 milligrams for individual foods, less than 720 milligrams if considered a main dish, and less than 960 milligrams if considered a meal.

Choose folate-rich foods

Inadequate intake of folate leads to the accumulation of homocysteine, an amino acid that damages artery walls and stimulates artery clogging. A high homocysteine level increases the risk for heart disease, even when blood cholesterol is within a normal range. Foods rich in folate include green leafy vegetables, such as spinach and asparagus. Folate is also present in dry beans and in most vegetables. Ready-to-eat breakfast cereals, breads, and flours have also been fortified with folate.



Be nuts about nuts

Nuts may be high in fat, but the fat they contain is primarily unsaturated and beneficial for reducing risk of heart disease. In addition, nuts contain notable amounts of fiber. Recent research suggests that eating nuts daily lowers risk of coronary heart disease by decreasing LDL cholesterol. Walnuts provide good amounts of monounsaturated fat and fiber and are the least expensive, whereas hazelnuts, almonds, and pistachios are highest in fiber. Remember, nuts are loaded with calories and should be eaten in moderation.



Learn the facts on flax

Flaxseed is naturally low in saturated fat and is a rich source of fiber and omega-3 fatty acids (the same type of fat found in fish). Whole flaxseed has a protective hull that keeps it fresh, so it can be stored in a refrigerator for up to a year. Ground and oil forms of flaxseed are more susceptible to oxidative reactions, leading to off-flavors and rancidity. To ensure freshness of these forms, keep them refrigerated in an airtight container for 3 to 6 months. For best quality, buy whole flaxseed and mill it in a coffee grinder as needed.

Add garlic

Fresh garlic may reduce blood pressure and decrease blood cholesterol and other substances involved in artery clotting. Adding garlic to foods is a great way to add flavor too.



High dietary intake of garlic may be associated with decreased risks of multiple cancers as well. However, the long term effects and outcomes of garlic supplement remain unclear.

Wine is good, but grape juice is better

Drinking one to two glasses of wine a day has been shown to reduce risk of cardiovascular disease but scientists are not sure why. Wine and grape juice contain compounds, called polyphenols, that act as anti-oxidants. Anti-oxidants may protect the artery wall from damage, which is the initiating factor of plaque formation. Because wine consumption can lead to alcohol addiction, some experts recommend purple grape juice instead.



When eating out, share your meal

Many restaurants take pride in serving large portions. Before you start eating, divide your portion in half and share it or ask for a take-home container so you can enjoy the rest at a later meal. Or, consider ordering an appetizer for your main dish.

Slow down

No matter what the size of your meal, try to make it last for at least 20 minutes. That's how long it takes for the message to get to your brain that you are satisfied. This will help you avoid feelings of being overstuffed and will help reduce fat intake.

For more resources, visit these Web sites:

ISU Extension Nutrition

www.extension.iastate.edu/healthnutrition

ISU Extension Distribution Center

www.extension.iastate.edu/store

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