

The Name of the Game ... Preventing Heart Disease

Heart disease can be caused by a buildup of harmful cholesterol in your arteries. Your body produces cholesterol and fats. Some types are healthy; others unhealthy. What you eat, how much you weigh, the amount of exercise you get, the amount of stress in your life, and your family history all affect the type and amount of cholesterol your body produces.



Normal Artery

Artery with
Buildup of
Plaque

Fats Made in Your Body

Cholesterol is a waxy fat made by the liver. You need cholesterol to be healthy; it helps you use vitamin D, make hormones, and digest food. Some people make too much or the wrong kind of cholesterol. **Target amount:** under 200 mg/dL

HDL (Good or **Healthy** cholesterol) “cleans up” bad or LDL cholesterol from the bloodstream and from artery walls and brings it back to the liver for recycling.

Think of HDL as the housekeeper of the bloodstream. **Target amount:** Men—above 40 mg/dL; Women—above 50 mg/dL.



LDL (Bad or **Lousy** cholesterol) carries cholesterol from the liver to the rest of the body through the arteries. When LDL cholesterol is too high, the cholesterol can cause plaque in the arteries. Plaque can narrow arteries and limit blood flow. When plaque breaks apart, it can cause a heart attack or stroke. **Target amount:** below 130 mg/dL for people without diabetes; if you have diabetes, then the target is 100 mg/dL.

Triglycerides carry fat through the bloodstream into the fat cells for storage. Triglycerides are a combination of fats and sugar. Triglycerides are important for good health, because they move fat around to where you need it. However, high triglycerides can be unhealthy by making the blood thick and sticky. **Target amount:** below 150 mg/dL.

Not All Fats Are Created Equal

Healthy fats in our foods:

Unsaturated fats are called “good” or “healthy” fats because they can lower bad blood cholesterol AND increase good blood cholesterol levels. Unsaturated fats also lower inflammation, which lowers risk for heart disease, stroke and diabetes.

Unsaturated fats, like omega-6 and omega-3 fats, are found mostly in plants, such as vegetable oils, nuts, seeds, and fish. The body can't make omega-6 fats or omega-3 fats, so you have to get them from food. Did you know all unsaturated fats are liquid at room temperature? **Below are examples of foods containing unsaturated, healthy fats:**

Monounsaturated fats: (lower total cholesterol and LDL, raise HDL cholesterol)	Polyunsaturated fats: (lower total cholesterol)	Omega-3 fats: (lowers inflammation and triglycerides)
Sources:	Sources:	Sources:
Olive oil Olives Pecans Sesame oil Avocado Canola oil Pistachios Almonds Pumpkin seeds	Vegetable oil Sunflower oil Sunflower seeds Walnuts Peanuts Fish	Fish oil Flax Chia seeds (Salvia) Soy Walnuts

Target: 1000mg of EPA plus DHA per day.

Unhealthy fats in our foods:

Saturated Fats: (increase LDL cholesterol, and slightly increase HDL cholesterol)

These fats are solid at room temperature (like butter). Your body makes saturated fats, so you do not need to eat any to be healthy.



Trans-fatty acids, also called trans fats, are a type of man-made fat produced by changing a liquid oil into a solid fat (by hydrogenation). Hydrogenated oils can be heated and cooled often without going bad, making them very popular for fried foods and for foods that require a long shelf life. Trans fats are the worst types of fats for the body because they raise bad LDL and lower good HDL.

Trans fats also cause inflammation, which can cause heart disease, diabetes, and strokes.



Saturated Fats:

(increase your LDL cholesterol, and slightly increase HDL cholesterol)

Sources:

Marbled fat in meat	Cheese
Skin on poultry	Coconut oil
Dairy fat	Palm kernel oil

Target: Less than 15 grams of saturated fat per day for women; less than 20 grams for men.

Trans Fats:

(increase LDL, lower HDL, increase inflammation)

Sources:

Processed foods	Baked goods
Snacks	Fast foods
Crackers	Fried foods
Cookies	Solid margarines

Target: NO TRANS FATS.

**Plant-based protein and fiber:**

Proteins from plants, including nuts, beans, legumes, and seeds, have been shown to lower cholesterol and inflammation. In some people, eating more plant-based proteins reverses heart disease.

Fiber, especially soluble fiber from oats, legumes, fruits and vegetables, helps to lower total cholesterol and triglycerides.

Target amount: 7–10 grams per day of soluble fiber; 25–30 grams total fiber.

Four simple tips to reduce your cholesterol when eating out:

1. Avoid fried foods. Stick with baked or broiled foods.
2. When ordering a starch, consider ordering your potatoes plain, baked or ask if sweet potato is an option. An even better option would be to ask for a side of vegetables rather than the starch.
3. Start with a salad, skip the bread, and order double vegetables.
4. Order once, eat twice; either share your meal or bring leftovers home for lunch the next day.

Label Reading 101

Nutrition Facts																			
1.	Serving Size 1 cup (247g) Servings Per Container 2																		
	Amount Per Serving																		
	Calories																		
2.	<table><thead><tr><th></th><th>% Daily Value*</th></tr></thead><tbody><tr><td>Total Fat 7g</td><td>11%</td></tr><tr><td>Saturated Fat 3g</td><td>15%</td></tr><tr><td>Trans Fat 2g</td><td></td></tr><tr><td>Cholesterol 30mg</td><td>10%</td></tr><tr><td>Sodium 1200mg</td><td>50%</td></tr><tr><td>Total Carbohydrates 33g</td><td>11%</td></tr><tr><td>Dietary Fiber 7g</td><td>28%</td></tr><tr><td>Sugars 5g</td><td></td></tr></tbody></table>		% Daily Value*	Total Fat 7g	11%	Saturated Fat 3g	15%	Trans Fat 2g		Cholesterol 30mg	10%	Sodium 1200mg	50%	Total Carbohydrates 33g	11%	Dietary Fiber 7g	28%	Sugars 5g	
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4.	Ingredients: SUGAR, ENRICHED FLOUR (WHEAT FLOUR, NIACIN, REDUCED IRON, THIAMINE MONONITRATE {VITAMIN B1}, RIBOFLAVIN {VITAMIN B2}, FOLIC ACID), PARTIALLY HYDROGENATED SOYBEAN OIL, HIGH OLEIC CANOLA OIL AND/OR PALM OIL AND/OR CANOLA OIL, AND/OR SOYBEAN OIL, COCOA (PROCESSED WITH ALKALI), HIGH FRUCTOSE CORN SYRUP, CORNSTARCH, LEAVENING (BAKING SODA AND/OR CALCIUM PHOSPHATE), SALT, SOY LECITHIN (EMULSIFIER), VANILLIN - AN ARTIFICIAL FLAVOR, CHOCOLATE. CONTAINS: WHEAT, SOY																		

1. Look at the Serving Size
2. Look at Total Fat amount—listed under that are Saturated and Trans Fats. Saturated Fats should be less than 15–20 grams total per day; Trans Fats should be zero.
3. Look at Total Carbohydrates—listed under Dietary Fiber. There should be at least 3 grams of fiber per serving of a grain, bread, baked good, or cereal product.

4. Remember to check the ingredients on the label of your food to make sure that it contains what the package says. An example is when bread claims to be whole grain. Look to make sure that the first ingredient actually is a whole grain.

Exercise

Exercise can help to boost your HDL and lower your LDL cholesterol!

Be sure to check with your doctor before starting an exercise program.

- » Start slow—Five to ten minutes a day is a good place to start
- » Gradually increase your time to 30–60 minutes per day
- » Look for small ways to be more active



Ask your doctor about working with a registered dietitian to help manage your cholesterol, blood pressure, diabetes, or weight.