



## What Are High Blood Cholesterol and Triglycerides?



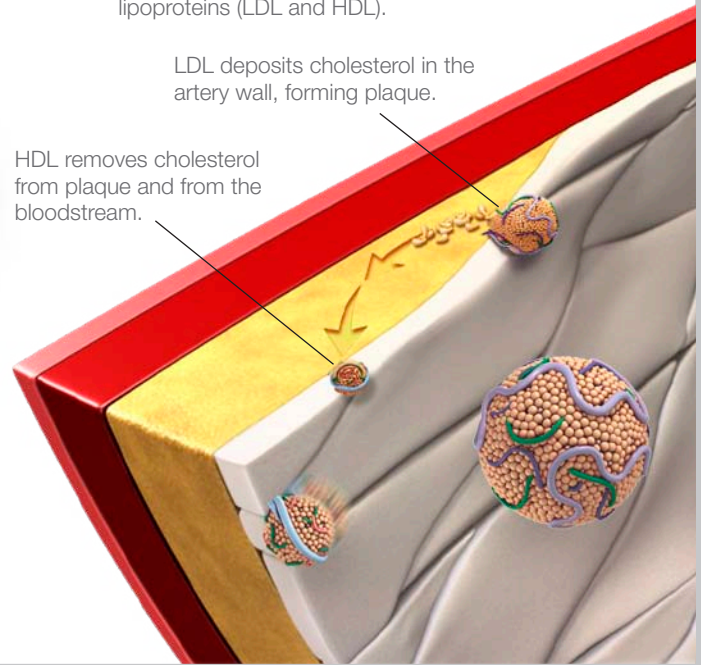
Cholesterol is a soft, fat-like substance found in the bloodstream and in all your body's cells. Your body makes all the cholesterol it needs.

The saturated fats, trans fats and cholesterol you eat may raise your blood cholesterol level. Having too much cholesterol in your blood may lead to increased risk for heart disease and stroke.

Cholesterol travels to the body's cells through the bloodstream by way of lipoproteins (LDL and HDL).

LDL deposits cholesterol in the artery wall, forming plaque.

HDL removes cholesterol from plaque and from the bloodstream.



### What's so bad about high blood cholesterol?

Low-density lipoprotein (LDL) cholesterol is often called "the bad kind." When you have too much LDL cholesterol in your blood, it can join with fats and other substances to build up in the inner walls of your arteries. The arteries can become clogged and narrow, and blood flow is reduced. If this buildup of plaque ruptures, a blood clot may form at this location or a piece may break off and travel in the bloodstream. If a blood clot blocks the blood flow to your heart, it causes a heart attack. If a blood clot blocks an artery leading to or in the brain, a stroke results.

High-density lipoprotein (HDL) cholesterol is called the "good kind." It carries harmful cholesterol away from the arteries and helps protect you from heart attack and stroke. It's better to have a lot of HDL cholesterol in your blood.

### How can I lower the bad cholesterol in my blood?

- Cut down on foods high in saturated fat and cholesterol. These include fatty meats, organ meats such as liver, shellfish, cheese, whole-milk dairy products, egg yolks, and solid fats such as butter.

- Do moderate intensity physical activities, such as brisk walking, at least 30 minutes on most or all days for a total of at least 150 minutes each week.
- Eat more foods low in saturated fat and cholesterol, and high in fiber. Aim for about 25 grams of fiber each day. Be sure to include a variety of fruits and vegetables, whole grains and grain products, beans, peas and legumes, fat-free and low-fat milk products, lean meats and poultry without skin, fatty fish, and nuts and seeds in limited amounts.
- Lose weight if you need to and maintain a healthy weight.
- If you can't control your cholesterol through lifestyle changes, ask your doctor about medicines that can reduce cholesterol.

### What are triglycerides?

Triglycerides are the most common type of fat in your body. They come from food, and your body also makes them. High levels of blood triglycerides are often found in people who have high cholesterol levels, heart problems, are overweight or have diabetes.

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### What about fats?

There are different kinds of fats in the foods we eat. Saturated fat raises blood cholesterol, so it's not good for you. Avoid animal fats like lard and meat fat, and some plant fats like coconut oil, palm oil and palm kernel oil.

- **Trans fat** comes from adding hydrogen to vegetable oils and tends to raise blood cholesterol. It's used in commercial baked goods and for cooking in many restaurants and fast-food chains. It's also found naturally in milk and beef.
- **Polyunsaturated fats** are found in vegetable oils and fish oils. These tend to lower blood cholesterol when eaten in moderation and used to replace saturated or trans fats.
- **Monounsaturated fats** are found in olive, canola, peanut, sunflower and safflower oils. In a low-saturated-fat diet, they may lower blood cholesterol.



You can help lower your LDL cholesterol by eating foods that are lower in saturated fat and cholesterol, and high in fiber. Aim for about 25 grams of fiber each day.

### HOW CAN I LEARN MORE?

- 1 **Talk to your doctor, nurse or other healthcare professionals.** If you have heart disease or have had a stroke, members of your family also may be at higher risk. It's very important for them to make changes now to lower their risk.
- 2 Call **1-800-AHA-USA1** (1-800-242-8721), or visit **heart.org** to learn more about heart disease.
- 3 For information on stroke, call **1-888-4-STROKE** (1-888-478-7653) or visit us at **StrokeAssociation.org**.

### Do you have questions for the doctor or nurse?

Take a few minutes to write your questions for the next time you see your healthcare provider.

For example:

**Will I need cholesterol-lowering medicine?**

**How does exercise affect my levels?**

### My Questions:

We have many other fact sheets to help you make healthier choices to reduce your risk, manage disease or care for a loved one. Visit **heart.org/answersbyheart** to learn more.

**Knowledge is power, so Learn and Live!**





# How Can I Lower High Cholesterol?

Too much cholesterol in the blood can lead to heart disease and stroke — America's No. 1 and No. 4 killers.

You can reduce your cholesterol by eating healthful foods, losing weight if you need to and being physically active. Some people also need to take medicine because changing their diet isn't enough. Your doctor and nurses will help you set up a plan for reducing your cholesterol — and keeping yourself healthy!

Most heart and blood vessel disease is caused by a buildup of cholesterol, plaque and other fatty deposits in artery walls. The arteries that feed the heart can become so clogged that the blood flow is reduced, causing chest pain. If a blood clot forms and blocks the artery, a heart attack can occur. Similarly, if a blood clot blocks an artery leading to or in the brain, a stroke results.



Cholesterol can join with fats and other substances in your blood to build up in the inner walls of your arteries. The arteries can become clogged and narrow, and blood flow is reduced.

## What should I eat?

Focus on low-saturated-fat, trans fat-free, low-cholesterol foods such as these:

- A variety of deeply colored fruits and vegetables (4 to 5 servings of each per day)
- A variety of fiber-rich grain products like whole grain bread, cereal, pasta and brown rice. (6 to 8 servings per day with at least half of the servings whole grains)
- Fat-free, 1 percent and low-fat milk products (2 to 3 servings per day)
- Lean meats and poultry without skin (choose up to 5 to 6 total ounces per day)
- Fatty fish (enjoy at least 2 servings baked or grilled each week)
- Nuts, seeds, and legumes (dried beans or peas) in limited amounts (4 to 5 servings per week)

- Unsaturated vegetable oils like canola, corn, olive, safflower and soybean oils (but a limited amount of tub or liquid unsalted margarines and spreads made from them)

## What should I limit?

- Whole milk, cream and ice cream
- Butter, egg yolks and cheese — and foods made with them
- Organ meats like liver, sweetbreads, kidney and brain
- High-fat processed meats like sausage, bologna, salami and hot dogs
- Fatty meats that aren't trimmed
- Duck and goose meat (raised for market)
- Bakery goods made with egg yolks, saturated fats and trans fats.

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- Saturated oils like coconut oil, palm oil and palm kernel oil
- Solid fats like shortening, partially hydrogenated margarine and lard
- Fried foods

### What are some cooking tips for me?

- Use a rack to drain off fat when you broil, roast or bake.
- Don't baste with drippings; use wine, fruit juice or marinade.
- Broil or grill instead of pan-frying.
- Cut off all visible fat from meat before cooking, and take all the skin off poultry pieces. (If you're roasting a whole chicken or turkey, remove the skin after cooking.)
- Use a vegetable oil spray to brown or sauté foods.
- Serve smaller portions of higher-fat dishes, and serve bigger portions of lower-fat dishes like pasta, rice, beans and vegetables.



- Make recipes or egg dishes with egg whites or egg substitutes, not yolks.
- Instead of regular cheese, use low-fat, low-sodium cottage cheese and other fat-free or low-fat, low-sodium cheeses.

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## Do you have questions for the doctor or nurse?

Take a few minutes to write your questions for the next time you see your healthcare provider.

For example:

**What about eating out?**

**Why are weight control and physical activity important?**

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