High Cholesterol

What is high cholesterol?

Having high cholesterol means that blood tests show a high level of cholesterol in your blood. Cholesterol is a type of fat. Your body makes some cholesterol and gets the rest from foods such as meats, dairy products, and eggs.

Cholesterol has both good and bad effects on the body. Your body uses cholesterol to make hormones and to build and maintain cells. When your body has too much cholesterol, the excess fat sticks to the inside of the blood vessel walls. This is called plaque. Plaque makes the blood vessel walls thicker and the area inside the vessels smaller. This means less blood can flow through the blood vessels. Also, pieces of plaque may break off and block blood flow, which can cause a heart attack or stroke.

The main types of cholesterol are LDL (low-density lipoprotein) and HDL (high-density lipoprotein).

- LDL leaves behind fatty deposits on artery walls and contributes to heart disease. LDL is called bad cholesterol. (You can think of "L" for "lousy" cholesterol.)
- HDL does the opposite: It cleans the artery walls, removes extra cholesterol from the body, and lowers the risk of heart disease. HDL is called good cholesterol. (Think of "H" for "healthy" cholesterol.)

It is good to have lower levels of LDL and higher levels of HDL.

Medical terms for high cholesterol are hypercholesterolemia or dyslipidemia.

What is the cause?

Causes of high cholesterol include:

- Eating foods that are high in saturated fat or cholesterol, like butter, meat, poultry fat, and some oils (the main cause of high cholesterol)
- Being overweight or obese
- Not being physically active
- Having an inherited problem with the way your body makes or manages cholesterol
- Having a disease that can raise your cholesterol level (for example, diabetes, kidney disease, liver disease, or hypothyroidism)

What are the symptoms?

High cholesterol is a silent disease. It does not cause any symptoms until problems have already developed—for example, pain in your calf when you walk or the chest pain of a heart attack.

How is it diagnosed?

A simple blood test can measure the different types of cholesterol in your blood. The test also measures your total cholesterol level and triglyceride level. (Triglycerides are another type of fat in the blood.)

When you get your cholesterol checked, your provider will give you a number for your **total cholesterol level**.

- Less than 200 is good.
- 200 to 239 is borderline high.
- 240 or above is high.

HDL levels of 60 milligrams per deciliter (mg/dL) or more help to lower your risk for heart disease. An HDL under 40 mg/dL for men or under 50 mg/dL for women increases the risk for heart disease.

The level of **LDL cholesterol** that is healthy for you depends on your risk of heart disease and heart attack. Your provider will evaluate your risk factors for heart disease to determine if your overall risk is low, moderate, or high. This will help you know what your LDL goal should be.

- The goal is less than 160 mg/dL if your risk of heart disease is low.
- The goal is less than 130 mg/dL if you have a moderate risk.
- The goal is less than 100 mg/dL if you have a high risk of heart disease or you already have heart disease or diabetes.
- For many people with heart disease or a very high risk of heart disease, especially if they also have diabetes, the goal is less than 70 mg/dL.

Your **triglyceride** level should be less than 150 mg/dL.

How is it treated?

The goal of most cholesterol treatments is to:

- Lower the LDL in your blood and
- Raise the HDL.

Lowering your LDL may slow or stop the fatty buildup (plaque) in your blood vessels. It may even help remove some of the buildup (plaque) that is already there. The lower your LDL is, the lower your risk for heart attack and stroke.

Raising your HDL helps your body get rid of harmful blood fats. It helps keep other types of cholesterol from sticking to the walls of your blood vessels and causing blockages.

A diet high in fiber and low in saturated fat and cholesterol can help to lower cholesterol levels. Being more physically active also helps lower your total cholesterol and LDL and raises your HDL.

If you are overweight, losing weight will help. You should also exercise as recommended by your healthcare provider.

If diet and exercise are not enough to lower your cholesterol level, your healthcare provider may prescribe medicine. Medicines that improve blood fat levels work in

different ways. Some lower bad LDL cholesterol or triglycerides, some raise good HDL cholesterol, and some do both. Sometimes people need to take more than one medicine to control blood fat levels. Your provider will choose the best medicine for you. In some cases it may take some time to find the right one. You may need more than 1 medicine to control your cholesterol.

To raise your HDL you need to start an exercise program according to your healthcare provider's recommendation. And if you smoke, stop smoking. If neither of these is sufficient, then you may need medicine. Niacin is often prescribed if HDL is your only abnormal cholesterol test result. If you have other cholesterol problems besides your HDL, your provider may prescribe another medicine.

How can I take care of myself and prevent high cholesterol?

- Watch your diet. Eat a diet low in saturated fat, trans fat, and cholesterol.
- Get more exercise, especially aerobic exercise. Ask your provider to give you a physical activity plan that tells you what kind of activity, and how much, is safe for you. Start slowly to avoid injury.
- Don't smoke and avoid secondhand smoke. Smoking lowers your HDL and increases your risk for heart disease in other ways as well.
- Limit alcohol to no more than 2 drinks a day for men and 1 drink a day for women.
- Lose weight if you are overweight and keep a healthy weight. It may take just a 10% weight loss to lower your cholesterol (and to lower your blood sugar and blood pressure, if they are also too high). That would only be 20 pounds if you weigh 200 pounds.
- Get your cholesterol levels and weight checked regularly. At first your cholesterol level may need to be checked every 3 to 6 months until it is staying in the normal range. Then you may need to check it just once a year.

Developed by RelayHealth.

Cholesterol and Saturated Fat Content of Selected Foods

Dairy Products

	Saturated Fat	Cholesterol
8 ounces whole milk	5 g	25 mg
8 ounces skim milk	0 g	5 mg
4 tablespoons sour cream	7 g	30 mg
4 tablespoons fat-free sour cream	0 g	6 mg
8 ounces yogurt	5 g	30 mg
8 ounces nonfat yogurt	0 g	5 mg
1 ounce cheddar cheese	6 g	30 mg
1 ounce low fat cheddar cheese	1 g	6 mg
8 ounces cottage cheese	4 g	36 mg
8 ounces low fat cottage cheese	1 g	9 mg

Fats

	Saturated Fat	Cholesterol
1 tablespoon butter	7 g	30 mg
1 tablespoon margarine	2 g	0 mg
1 tablespoon corn, canola, or safflower oil	1 g	0 mg

Meat and Proteins

	Saturated Fat	Cholesterol
1 whole egg	2 g	211 mg
3 ounces pork chop	4 g	68 mg
3 ounces pork sausage	7.5 g	70 mg
3 ounces sirloin steak	3 g	76 mg
3 ounces beef ribs	5 g	69 mg
3 ounces chicken breast without skin	1 g	73 mg
3 ounces 90 - 94% lean ground beef	4 g	78 mg
3 ounces ham	1 g	14 mg
3 ounces chicken thigh with skin	3.7 g	79 mg
3 ounces shrimp	0.25 g	200 mg
3 ounces crab	0.15 to 0.2 g	45 to 85 mg
3 ounces tuna	0 g	26 mg
3 ounces salmon	1.5 g	50 mg
4 ounces pinto beans	0 g	0 mg