



Hypercholesterolemia

West Houston Internal Medicine Associates, P.A.

Cholesterol Basics

Have you been diagnosed with high cholesterol? Is lowering your cholesterol a goal? The first step is to find out: what is cholesterol?

Cholesterol is a waxy, fat-like substance made in the liver and found in certain foods, such as food from animals, like dairy products (whole milk), eggs and meat.

The body needs some cholesterol in order to function properly. Its cell walls, or membranes, need cholesterol in order to produce hormones, vitamin D and the bile acids that help to digest fat. But, the 9.5 a small

amount of cholesterol to meet its needs. When too much is present health problems such as coronary heart disease may develop.

Types of Cholesterol

Cholesterol travels through the blood attached to a protein -- this cholesterol-protein package is called a lipoprotein. Lipoproteins are classified as high density, low density, or very low density, depending on how much protein there is in relation to fat.

- **Low density lipoproteins (LDL):** LDL, also

called "bad" cholesterol, can cause buildup of plaque on the walls of arteries. The more LDL there is in the blood, the greater the risk of heart disease.

- **High density lipoproteins (HDL):** HDL, also called "good" cholesterol, helps the body get rid of bad cholesterol in the blood. The higher the level of HDL cholesterol, the better. If your levels of HDL are low, your risk of heart disease increases.
- **Very low density lipoproteins (VLDL):** VLDL is similar to LDL chole-

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Special points of interest:

- ◆ [Types of cholesterol.](#)
- ◆ [Cholesterol culprits.](#)
- ◆ [Cholesterol numbers.](#)
- ◆ [Cholesterol treatment.](#)
- ◆ [Lowering cholesterol alternatives.](#)

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Types of Cholesterol, continued

terol in that it contains mostly fat and not much protein.

- **Triglycerides:** Triglycerides are another type of fat that is carried in

the blood by very low density lipoproteins. Excess calories, alcohol or sugar in the body are converted into triglycerides and stored in fat cells throughout the

body.





What factors affect cholesterol levels?

A variety of factors can affect your cholesterol levels. They include:

- **Diet.** Saturated fat and cholesterol in the food you eat increase cholesterol levels. Try to reduce the amount of saturated fat and cholesterol in your diet.
- **Weight.** In addition to being a risk factor for heart disease, being overweight can also increase your cholesterol. Losing weight can help lower your LDL and total cholesterol levels,

as well as increase HDL cholesterol.

- **Exercise.** Regular exercise can lower LDL cholesterol and raise HDL cholesterol. You should try to be physically active for 30 minutes on most days.
- **Age and Gender.** As we get older, cholesterol levels rise. Before menopause, women tend to have lower total cholesterol levels than men of the same age. After menopause, however, women's LDL levels tend to rise.

- **Diabetes.** Poorly controlled diabetes increases cholesterol levels. With improvements in control, cholesterol levels can fall.
- **Heredity.** Your genes partly determine how much cholesterol your body makes. High blood cholesterol can run in families.
- **Other causes.** Certain medications and medical conditions can cause high cholesterol.

How Much Cholesterol Is to Much?

Everyone over the age of 20 should get their cholesterol levels measured at least once every 5 years.

When being tested, your doctor may recommend a non-fasting cholesterol test or a fasting cholesterol test. A non-fasting cholesterol test will show your total cholesterol and HDL cholesterol. A fasting cholesterol test, called a lipid profile or a lipoprotein analysis, will measure your LDL, HDL, and total cholesterol. It will also measure triglycerides.

Your doctor may start with a non-fasting cholesterol test and then recommend a lipid profile, based on your results.

Doctors recommend your cholesterol stay below 200.

Here is the breakdown:

Total Cholesterol	Category
Less than 200	Desirable
200-239	Borderline High
240 & Above	High

Your LDL, HDL and triglyceride levels are important as well.

"Doctors recommend your cholesterol to stay below 200."



This may look tasty, but it's not good for your cholesterol.





How Can I Lower My Cholesterol?

A few simple changes can help lower your cholesterol:

- **Eat low cholesterol foods.** The American Heart Association recommends that you limit your average daily cholesterol intake to less than 300 milligrams. If you have heart disease, limit your daily intake to less than 200 milligrams. People can significantly lower their dietary cholesterol intake by keeping their dietary intake of saturated fats low

and by avoiding foods that are high in saturated fat and that contain substantial amounts of dietary cholesterol.

- **Quit smoking.** Smoking lowers HDL ("good") cholesterol levels. This trend can be reversed if you quit smoking.
- **Exercise.** Exercise increases HDL cholesterol in some people. Even moderate-intensity activities, if done daily, can help control weight, diabetes, and

high blood pressure -- all risk factors for heart disease.

- **Take medication as prescribed by your doctor.** Sometimes making changes to your diet and increasing exercise is not enough to bring your cholesterol down. You may also need to take a cholesterol lowering drug.

How Is Cholesterol Treated?

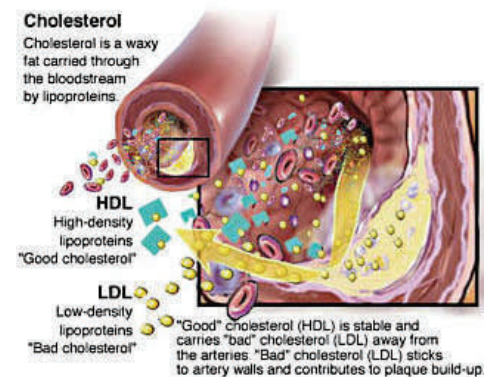
The main goal in lowering cholesterol is to lower your LDL and raise your HDL. There are two key ways to lower cholesterol: eat a heart-healthy diet and take cholesterol-lowering medications.

Doctors determine your "goals" for lowering LDL based on the number of risk factors you have for heart disease.

- If you have 0-1 risk factor for heart disease, you are at low-to-moderate risk. Lifestyle changes are recommended to keep the cholesterol in check.
- If you have 2 or more risk factors, you are at moderate risk or next-highest risk, depending on what heart disease risk factors you have. Sometimes your doctor will try lifestyle changes, but most of these people require cholesterol-lowering drugs.

- If you have known heart disease, diabetes or multiple risk factors, you are at high, or very high, risk. These people require a combination of cholesterol-lowering drugs and lifestyle changes to control their cholesterol levels.

"Poorly controlled diabetes increases cholesterol levels"



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Cholesterol lowering Foods.

Do you want a diet to [lower cholesterol](#)? We all know that butter, ice cream, and fatty meats raise [cholesterol](#), but do you know which foods make up a low-cholesterol diet? Find out here.

Here's some good news. To lower your cholesterol, you can actually eat more of certain foods. A handful of some "functional foods" have been shown to make a big impact on your [cholesterol levels](#). They're also much tastier than a pill chased with a glass of water.

"These foods may not be magic, but they're close to it," says Ruth Frechman, RD, a spokeswoman for the American Dietetic Association.

Researchers have found that some foods -- such as fatty fish, walnuts, oatmeal, and oat bran, and foods fortified with plant sterols or stanols -- can help control your cholesterol. Some studies have shown that a diet combining these "superfoods" may work as well as some cholesterol-lowering medicines to reduce your "bad" [LDL cholesterol](#) levels.

How strong is the evidence? The FDA has reviewed the research on each of these foods, and given them the status of a "health claim" for managing cholesterol.

This is great news for the 105 million adults in the U.S. with high cholesterol. Making good food choices is an

easy way of improving your health. It also puts less strain on your pocketbook. A trip to the grocery store is bound to be cheaper than a trip to the pharmacy. Also, many people can't handle the side effects from cholesterol [drugs](#). Focusing on diet gives us all a new option.

