

Understanding Cholesterol

What is cholesterol?

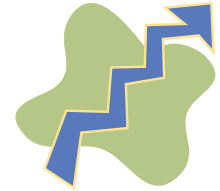
Cholesterol is a soft, waxy substance that carries digested fat from your liver to parts of your body that need fat for energy and healing. It also carries fat to “fat storage sites” in your body such as your stomach and hips. Your liver produces most of the cholesterol in your body. But some comes from eating foods high in cholesterol and saturated fats.

Cholesterol and fat travel in your bloodstream in packages called **lipoproteins**. Lipoproteins are classified by their density, and different types play different roles in your health.

What are the different types of cholesterol and fat—and are they all bad?

A certain amount of fat and cholesterol in your blood is healthy and normal. But too much—or abnormal levels of certain types—can cause problems. For example, all of the following increase your risk of heart attack or stroke:

- **High levels of LDL cholesterol (“bad cholesterol”).** LDLs are low-density lipoproteins. These carry the largest amount of cholesterol in the blood. When you have too much LDL cholesterol in your bloodstream, it can build up in the walls of your arteries. This contributes to atherosclerosis.
- **Low levels of HDL cholesterol (“good cholesterol”).** HDLs are high-density lipoproteins. Too little HDL cholesterol in your bloodstream can also be risky. That’s because HDL cholesterol removes some of the LDL cholesterol from the artery walls, preventing or slowing the buildup of dangerous plaque. You want high levels of this “good” HDL to help keep your arteries clear—and your heart protected.
- **High levels of triglycerides.** Triglyceride is the most common type of fat in your blood. Studies show that many people who have heart disease have high triglyceride levels. High triglyceride levels, combined with low HDL cholesterol or high LDL cholesterol, seem to speed up atherosclerosis.



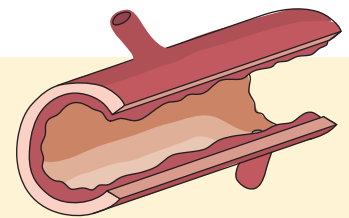
“High cholesterol”

as a catch-all term

People use the term “high cholesterol” to describe several different conditions:

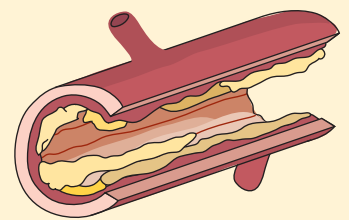
- High total cholesterol
- High LDL cholesterol
- Low HDL cholesterol
- High triglycerides

Each of these conditions is a risk factor for heart disease.



Normal artery

A smooth, flexible artery carries blood efficiently to your heart.



Atherosclerosis in an artery

Cholesterol, fat, and other materials form a hard plaque buildup that narrows the artery and limits blood flow.



What you can do to lower your cholesterol

- Change your eating habits.** Limit cholesterol and saturated fat in your daily diet. See Intermountain Healthcare’s **Building Blocks: Nutrition for a Healthy Heart** for more information and ideas: intermountainhealthcare.org/prevention
- Get more exercise.** Increasing your physical activity can also help balance cholesterol levels and keep your arteries clear.
- Take medications as prescribed.** If you can’t lower your cholesterol with diet and exercise alone, your doctor might prescribe medication to help. For example, statins are commonly used cholesterol medications.

How are cholesterol problems diagnosed?

You health care providers can check your blood cholesterol with a blood test called a **lipid panel**. A full panel provides the readings listed in the table below.

Lipid panel readings

Components of a lipid panel	Recommended levels*
Total cholesterol <i>Lower is better.</i>	200 mg/dl or less is desirable
LDL (“bad cholesterol”) <i>Lower is better.</i>	100 mg/dl or less is optimal
HDL (“good cholesterol”) <i>Higher is better.</i>	40 mg/dl or more for men 45 mg/dl or more for women 60 mg/dl is considered protective against heart disease
Triglycerides <i>Lower is better.</i>	150 mg/dl or less is normal
Ratio of total cholesterol to HDL <i>Obtained by dividing total cholesterol by HDL.</i> <i>Lower is better.</i>	5:1 or less

**These are general guidelines. Your health care provider can help you set personal goals for cholesterol levels, based on your condition and other risk factors.*

By itself, high blood cholesterol doesn’t cause any symptoms. As a result, many people don’t know that they face this health risk. Experts recommend that everyone over the age of 20 get their cholesterol checked at least once every 5 years.