

Cholesterol: The Basics

Cholesterol is a waxy, fat-like substance found in your body. It is needed for the body to function normally and is found in all cells of the body. Your body makes enough cholesterol for its needs. Cholesterol is carried in the blood in particles called *lipoproteins*. These particles are made up of cholesterol on the inside and protein on the outside.

There are two kinds of lipoproteins:

- ***Low-Density Lipoproteins (LDL)***: These are the major type of lipoprotein that carries cholesterol in the bloodstream to the body. These are the type that can lead to a buildup of cholesterol in the arteries and lead to heart disease.
- ***High-Density Lipoproteins (HDL)***: These particles carry cholesterol back to the liver to remove it from the body. Higher levels of HDL are considered good.

An excess of either total or LDL cholesterol in the blood is a risk for heart disease and atherosclerosis. People can have an excess of cholesterol because of diet and because of the rate at which cholesterol is processed in the body. Most of the excess cholesterol comes from diet. Cholesterol can build up on the artery walls of your body. This buildup is called *plaque*. Over time, plaque can cause the arteries to become narrow, which is called *atherosclerosis*. As a result, less oxygen-rich blood can pass through. When the arteries that carry blood to the heart are affected, *coronary artery disease* can result. A *heart attack* occurs when a coronary artery becomes completely blocked. A coronary artery can become blocked either by plaque buildup or by a plaque that ruptures or bursts which causes a clot. Angina can also develop because of plaque buildup. *Angina* happens when the heart does not receive enough oxygen-rich blood.

High blood cholesterol itself does not cause symptoms, so many people may not know that their cholesterol level is too high. Simple blood tests can be done to check your total, LDL, and HDL cholesterol levels and other types of *fats* in the blood (such as *triglycerides*). If it is found that your cholesterol is high, your doctor may prescribe various treatments depending on your risk for developing heart disease. These include *lifestyle changes* such as diet, weight control, and physical activity. Certain drugs can also be prescribed to manage your cholesterol. Lifestyle changes are usually still recommended with medications. All people can do things to help keep cholesterol within the normal range.