

# Cholesterol

Cholesterol is a fatty substance carried in the bloodstream and needed in small amounts by the body to rebuild its cells and to make certain hormones. People with high cholesterol have too much cholesterol in the bloodstream. Cholesterol levels generally rise with age and can increase the risk of heart disease, stroke, and peripheral vascular disease. The liver is responsible for making about 80% of the body's cholesterol; the rest comes from the diet. Dietary cholesterol is found in foods from animal sources, such as eggs, meats, and dairy products. There are two important types of cholesterol:

- low-density lipoprotein (LDL), or "bad" cholesterol and
- high-density lipoprotein (HDL), or "good" cholesterol

Most of the LDL or "bad" cholesterol circulates in the blood and remains unused. Normally, the liver removes this excess cholesterol, but many people have more LDL cholesterol than the liver can handle. HDL is considered "good" cholesterol because it picks up the LDL cholesterol from the arteries and tissues and carries it back to the liver, where it can be broken down.

Many factors determine the amount of LDL cholesterol in the body:

- age (cholesterol levels increase with age)
- alcohol consumption
- diet
- gender (men have higher cholesterol)
- heredity
- level of physical activity
- weight

Eating foods that are high in saturated fats and cholesterol also affects the amount of cholesterol in the body. Furthermore, some medical conditions, such as diabetes, hypothyroidism, liver disease, and kidney disease can raise cholesterol levels. LDL cholesterol promotes buildup of harmful fatty deposits (or plaques) in the walls of the arteries. These plaques can clog the arteries, including the coronary arteries that feed the heart. This process is called atherosclerosis (hardening of the arteries) and can result in angina (chest pain), heart attack, or stroke.

High cholesterol usually has no obvious symptoms; it's a "silent" condition that offers no early warning. Most people first discover the problem during a routine blood test and physical exam. Typically high cholesterol appears as symptoms from the complications of high cholesterol. These include angina and pain in the calves caused by narrowed arteries to the legs. The main complications of high cholesterol are heart disease and stroke. Lowering cholesterol levels with treatment reduces the risk of developing coronary artery disease, heart attack, stroke, and other disorders.

A healthy lifestyle is the best defense against high cholesterol. This also helps against other risk factors linked to coronary artery disease. Lifestyle changes are a good first step in reducing cholesterol levels:

- observing a diet low in saturated fats and cholesterol
- eating a wide variety of vegetables, whole grains, fruits, nuts and seeds
- boosting your level of physical activity
- maintaining a healthy body weight
- limiting alcohol consumption to no more than 2 drinks per day to a maximum of 10 drinks per week

Medication therapy may be added to lifestyle change if cholesterol target levels are not reached, or may be started right away in addition to lifestyle change in those people with a higher risk of coronary artery disease.