What is cholesterol?

Cholesterol is a waxy substance your body uses to protect nerves, make cell tissues, and produce certain hormones. Your liver makes all the cholesterol your body needs. Your body also gets cholesterol directly from the food you eat (such as eggs, meats, and dairy products). Too much cholesterol can have negative impacts on your health.

What is the difference between "good" cholesterol and "bad" cholesterol?

Low-density lipoprotein (LDL) is often called "bad" cholesterol. It delivers cholesterol to the body. High-density lipoprotein (HDL) is often called "good" cholesterol. It removes cholesterol from the bloodstream.

This explains why too much LDL cholesterol is bad for the body, and why a high level of HDL cholesterol is good. For example, if your total cholesterol level is high because of a high LDL level, you may be at higher risk of heart disease or stroke. But, if your total cholesterol level is high only because of a high HDL level, you're probably not at higher risk.

Triglycerides are another type of fat in your blood. When you eat more calories than your body can use, it turns the extra calories into triglycerides.

Changing your lifestyle (diet and exercise) can improve your cholesterol levels, lower LDL and triglycerides, and raise HDL.

What should my cholesterol levels be?

Your ideal cholesterol level will depend on your risk for heart disease.

- **Total cholesterol level** – less than 200 is best, but depends on your HDL and LDL levels
- **LDL cholesterol levels** – less than 130 is best, but this depends on your risk for heart disease
- **HDL cholesterol levels** – 60 or higher reduces your risk for heart disease
- **Triglycerides** – less than 150 milligrams per deciliter (mg/dl) is best

Symptoms of high cholesterol

Often, there are no symptoms that specifically relate to high cholesterol. So you could have high cholesterol and not know it.

If you have high cholesterol, your body may store the extra cholesterol in your arteries. Your arteries are blood vessels that carry blood from your heart to the rest of your body. Buildup of cholesterol in your arteries is known as plaque. Over time, plaque can become hard and make your arteries narrow. Large deposits of plaque can completely block an artery. Cholesterol plaques can also split open, leading to formation of a blood clot that blocks the flow of blood.

If an artery that supplies blood to the muscles in your heart becomes blocked, you could have a heart attack. If an artery that supplies blood to your brain becomes blocked, you could have a stroke.

Many people don't discover that they have high cholesterol until they suffer one of these life-threatening events.

What causes high cholesterol?

Your liver produces cholesterol, but you also get cholesterol from food. Eating too many foods that are high in fat can increase your cholesterol level.

Being overweight and inactive also will lead to high cholesterol. If you are overweight, you most likely have a higher level of triglycerides. If you never exercise and aren't active in general, it can lower your HDL (good cholesterol).

You family history also affects your cholesterol level. Research has shown that high cholesterol tends to run in families. If you have an immediate family member who has it, you could have it, too.

Smoking also promotes high cholesterol because it lowers your HDL (good cholesterol).

How is high cholesterol diagnosed?

You can't tell if you have high cholesterol without having it checked. A simple blood test will reveal your cholesterol level.

Men 35 years of age and older and women 45 years of age and older should have their cholesterol checked. Men and women 20 years of age and older who have risk factors for heart disease should also have their cholesterol checked. Teens may need to be checked if they are taking certain medicines or have a strong family history of high cholesterol. Ask your doctor how often you should have your cholesterol checked.

Risk factors for heart disease include:

- Cigarette smoking.
- High blood pressure.
- Older age.
- Have an immediate family member (parent or sibling) who has had heart disease.
- Being overweight or obese.
- Inactivity.

Cholesterol and children

Many people don't realize that problems with high cholesterol levels can begin in childhood. High cholesterol levels are likely to continue to rise as a child grows into a teen and adult. This increases your child's risk for cholesterol-related health problems.

In response to the current childhood obesity epidemic, the National Heart Blood and Lung Institute (NHBLI) and American Academy of Pediatrics (AAP) now recommend universal serum lipid screening for children once between ages 9 and 11 years and again when they reach ages 17 to 21 years. Targeted screening is recommended for children ages 2 to 8 years and 12 to 16 years who have cardiovascular risk factors such as hypertension, obesity, or a family history of premature cardiovascular disease.

Can high cholesterol be prevented or avoided?

Making healthy food choices and exercising are two important ways to reduce your risk of developing high cholesterol.

Try eating fewer foods with saturated fats (such as red meat and most dairy products). Opt for healthier fats, like those found in lean meats, avocados, nuts, and low-fat dairy items. Steer clear of foods that contain trans fat (such as fried and packaged foods). Look for foods that are rich in omega-3 fatty acids. These foods include salmon, herring, walnuts, and almonds.

Your exercise routine can be something simple. Anything that prevents you from being inactive will work. Go for a walk. Take a yoga class. Ride your bike to work. You could even try signing up for a team sport. Aim to get 30 minutes of activity every day. Doing so will help raise your HDL "good cholesterol."

High cholesterol treatment

If you have high cholesterol, you may need to make some lifestyle changes. If you smoke, quit. Exercise regularly. If you're overweight, losing just five to 10 pounds can help improve your cholesterol levels and your risk for heart disease. Make sure to eat plenty of fruits, vegetables, whole grains, and fish.

What about medicine to lower cholesterol?

Depending on your risk factors, your doctor may suggest medicine along with lifestyle changes.

Living with high cholesterol

If you have high cholesterol, you are twice as likely to develop heart disease. That is why it is important to have your cholesterol levels checked, especially if you have a family history of heart disease. Working to decrease your LDL "bad cholesterol" through good diet, exercise, and medication can make a positive impact on your overall health.

Resources

National Institutes of Health: National Heart, Lung, and Blood Institute, Cholesterol

Centers for Disease Control and Prevention, Cholesterol