

## **What is Cholesterol?**

Cholesterol is a soft, fat-like, waxy substance found in the bloodstream and in all your body's cells. It's normal to have cholesterol. It's an important part of a healthy body because it's used for producing cell membranes and some hormones, and serves other needed bodily functions. But too much cholesterol in the blood is a major risk for coronary heart disease, which leads to heart attack. It's also a risk factor for stroke. Hypercholesterolemia is the term for high levels of blood cholesterol.

You get cholesterol in two ways. Your body makes some of it, and the rest comes from cholesterol in animal products that you eat, such as meats, poultry, fish, eggs, butter, cheese and whole milk. Food from plants — like fruits, vegetables and cereals — doesn't have cholesterol. Some foods that don't contain animal products may contain trans fats, which cause your body to make more cholesterol. Foods with saturated fats also cause the body to make more cholesterol.

Cholesterol and other fats can't dissolve in the blood. They have to be transported to and from the cells by special carriers called lipoproteins. There are two kinds that you need to know about. Low-density lipoprotein, or LDL, is known as the "bad" cholesterol. Too much LDL cholesterol can clog your arteries, increasing your risk of heart attack and stroke. High-density lipoprotein, or HDL, is known as the "good" cholesterol. Your body makes HDL cholesterol for your protection. It carries cholesterol away from your arteries. Studies suggest that high levels of HDL cholesterol reduce your risk of heart attack.

## **Difference Between LDL and HDL Cholesterol**

### **Why is LDL cholesterol considered "bad"?**

When too much LDL cholesterol circulates in the blood, it can slowly build up in the inner walls of the arteries that feed the heart and brain. Together with other substances it can form plaque, a thick, hard deposit that can clog those arteries. This condition is known as atherosclerosis. If a clot forms and blocks a narrowed artery, it can cause a heart attack or stroke. The levels of HDL cholesterol and LDL cholesterol in the blood are measured to evaluate the risk of having a heart attack. LDL cholesterol of less than 100 mg/dL is the optimal level. Less than 130 mg/dL is near optimal for most people. A high LDL level (more than 160 mg/dL or 130 mg/dL or above if you have two or more risk factors for cardiovascular disease) reflects an increased risk of heart disease. That's why LDL cholesterol is often called "bad" cholesterol.

### **Why is HDL cholesterol considered "good"?**

About one-third to one-fourth of blood cholesterol is carried by high-density lipoprotein (HDL). HDL cholesterol is known as the "good" cholesterol because a high level of it seems to protect against heart attack. (Low HDL cholesterol levels [less than 40 mg/dL] increase the risk for heart disease.) Medical experts think that HDL tends to carry cholesterol away from the arteries and back to the liver, where it's passed from the body. Some experts believe that HDL removes excess cholesterol from plaque in arteries, thus slowing the buildup.

## **What are Triglycerides?**

Triglyceride is a form of fat. It comes from food and is also made in your body. People with high triglycerides often have high total cholesterol, high LDL cholesterol and a low HDL cholesterol level. Many people with heart disease also have high triglyceride levels. People with diabetes or who are obese are also likely to have high triglycerides. Triglyceride levels of less than 150 mg/dL are normal; levels from 150–199 are borderline high. Levels that are borderline high or high (200–499 mg/dL) may need treatment in some people. Triglyceride levels of 500 mg/dL or above are very high. Doctors need to treat high triglycerides in people who also have high LDL cholesterol levels.

## **Common Misconceptions About Cholesterol**

### **1. Using margarine instead of butter will help lower my cholesterol.**

Both margarine and butter are high in fat, so use both in moderation. From a dietary perspective, the major factor affecting blood cholesterol is how much saturated fat is in the food. Reducing your intake of saturated fat is key to helping control cholesterol. Most soft or liquid margarines have less saturated fat and are preferable to the stick forms for a heart-healthy diet. It's best to select trans fat-free margarines. However, eat all fatty foods in moderation. Learn more about American Heart Association dietary guidelines.

### **2. Thin people don't have to worry about high cholesterol.**

Overweight people are more likely to have high cholesterol from eating too many fatty foods, but thin people should also have their cholesterol checked regularly. Often people who don't gain weight easily are less aware of how much saturated fat they eat. Nobody can "eat anything they want" and stay heart healthy. Have your cholesterol checked regularly regardless of your weight, exercise habits and diet. Learn more about what you can do to manage your cholesterol levels.

### **3. My doctor hasn't said anything about my cholesterol, so I don't have to worry.**

Unfortunately, not all physicians are as proactive about healthy lifestyles as they should be. Your health is your responsibility. Make sure that you have a blood cholesterol test and learn how to interpret all the numbers, including HDL (good) cholesterol, LDL (bad) cholesterol and triglyceride levels. If you're in a high or borderline-high range, discuss options with your physician. You may be able to control the levels by eating a diet lower in saturated fat and cholesterol, getting 30–60 minutes of physical activity on most days and quitting smoking. If lifestyle changes alone don't work, your physician may prescribe a cholesterol-lowering medication. Healthy levels of cholesterol.

### **4. Since the nutrition label on my favorite food says there's no cholesterol, I can be sure that it's a "heart-healthy" choice.**

Nutrition labels on food are very helpful when choosing heart-healthy foods, but you need to know what to look for. Many "low-cholesterol" foods contain high levels of saturated fat or trans

fatty acids — both of which contribute to high blood cholesterol. Even foods that claim to be “low-fat” may have a higher fat content than expected. Look for the amount of saturated fat, total fat, cholesterol and total calories in a serving of the product. Also check how much a serving is. Often it’s smaller than you think. The first ingredient listed is the one used most in the product, so choose products where fats and oils appear later in the ingredient listing. The Food and Drug Administration will require foods to be labeled for trans fats by 2006. Many manufacturers have already begun doing this. Trans fats are found in variable amounts in most foods with partially hydrogenated oils such as baked goods, fried foods and some margarines and dairy products. Know your fats.

**5. Since I started taking medication for my high cholesterol, I don’t have to worry about what I eat.**

Unless your cholesterol is dangerously high, it's best to try to reduce it by changing your diet. Drug therapy is usually prescribed for those who — despite adequate dietary changes, regular physical activity and weight loss — still have elevated levels of cholesterol. Modern medications have come a long way in helping to control blood cholesterol levels, but making lifestyle changes along with taking medication is the best way to help prevent heart disease. Reducing the amount of saturated fat and cholesterol in your diet and getting 30–60 minutes of exercise on most or all days of the week is recommended, even if you’re taking cholesterol-lowering medication. It’s also very important to take your medication exactly as your doctor has instructed so it can work most efficiently. Cholesterol medications.

**6. I recently read that eggs aren’t so bad for your cholesterol after all, so I guess I can go back to having my two eggs for breakfast every morning.**

One egg contains about 213 milligrams of dietary cholesterol. That’s a lot given that the daily recommended cholesterol limit is 300 milligrams. An egg a day can fit within heart-healthy guidelines only if cholesterol from other sources, such as meats, poultry and dairy products, is limited. For example, eating one egg for breakfast, drinking two cups of coffee with one tablespoon of half-and-half each, lunching on four ounces of lean turkey breast without skin and one tablespoon of mayonnaise, and having a 6-ounce serving of broiled, short loin porterhouse steak for dinner would account for about 510 mg of dietary cholesterol that day — nearly twice the recommended limit. If you’re going to eat an egg every morning, substitute vegetables for some of the meat, or drink your coffee without half-and-half. Learn more about cooking for lower cholesterol.

**7. I’m a woman so I don’t have to worry. High cholesterol is a man’s problem.**

Premenopausal women are usually protected from high LDL (bad) levels of cholesterol, because the female hormone estrogen tends to raise HDL (good) cholesterol levels. Postmenopausal women may find that even a heart-healthy diet and regular exercise aren’t enough to keep their cholesterol from rising. If you’re approaching menopause, it’s especially important to have your cholesterol checked and talk with your doctor about your options. Postmenopausal hormone therapy (PHT, formerly called hormone replacement therapy or HRT) is not recommended to prevent heart disease and may not be the best answer for every woman.

## **8. You don't need to have your cholesterol checked until you reach middle age.**

It's a good idea to start having your cholesterol checked at an early age. Even children, especially those in families with a history of heart disease, can have high cholesterol levels. And evidence exists that these children are at greater risk for developing heart disease as adults. Lack of exercise, poor dietary habits and genetics can all affect a child's cholesterol levels. You're never too young to develop a heart-healthy lifestyle by eating foods low in saturated fats, getting 30–60 minutes of physical activity on most or all days, and avoiding tobacco products. Learn more about safe levels of cholesterol in children.

Source: <http://www.americanheart.org>