

## WHAT IS CHOLESTEROL?

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Cholesterol is a fat-like substance found inside every cell in your body and is a necessary substance that your body requires to function properly. Cholesterol does such things as make hormones, Vitamin D, and substances that help you to digest foods.

If you have ever tried to mix oil and water you know that they do not mix. Cholesterol and blood are the same as oil and water. Therefore cholesterol is carried through the blood by something called lipoproteins. Lipoproteins are made up of fat (inside) and proteins (outside). There are different types of lipoproteins that carry cholesterol through your body.

**LDL (Low-Density Lipoprotein)** is also known as the "bad" cholesterol. This type of cholesterol in large quantities leads to a buildup of cholesterol in your arteries. Over time, this can lead to heart disease.

**HDL (High-Density Lipoprotein)**, or "good" cholesterol, carries cholesterol from various parts of your body to your liver. The liver then removes the cholesterol from your body. High HDL (good) cholesterol reduces your risk of getting heart disease whereas high LDL (bad) cholesterol increases your risk of getting heart disease.

### **Where does cholesterol come from?**

Did you know there are two sources of cholesterol: food and family? It is important to understand that there are two sources of cholesterol. In addition to the cholesterol that comes from foods you eat, cholesterol is also produced naturally in your body based on your family health history.

### **How does LDL (bad) cholesterol increase the risk of heart disease?**

When there is an abundance of LDL (bad) cholesterol in your blood, it begins to build-up in the walls of your arteries. This build-up, called plaque, causes a narrowing of the artery walls. This is called atherosclerosis (ath-er-o-skler-o-sis). When this happens the amount of blood that can reach your heart goes down. The flow of blood to your heart can completely stop if the plaque builds up too much. When enough blood can't reach the heart, people can have chest pain. This chest pain, called angina, is a common sign of coronary artery disease. Having high LDL (bad) cholesterol in your blood also puts you at risk of forming blood clots that can cut off blood supply to your heart. The result of this is a heart attack.

## How do I find out what my cholesterol levels are and what they mean?

To start, you should make sure that you get your cholesterol tested about once every five years. You can get tested at your doctor's office, or there are many places that offer free screenings for cholesterol. Be sure that if you get tested at a free screening that you share the numbers with your doctor. When you get tested you will most likely get a "lipoprotein profile." This test will give you several pieces of information about your cholesterol, including: total cholesterol; LDL (bad) cholesterol; triglycerides (another form of fat in your blood); HDL (good) cholesterol.

<b>Total Cholesterol Level</b>	<b>Category</b>
Less than 200 mg/dL	Desirable
200-239 mg/dL	Borderline High
240 mg/dL and above	High

  

<b>LDL Cholesterol Level</b>	<b>LDL Cholesterol Category</b>
Less than 100 mg/dL	Optimal
100-129 mg/dL	Near optimal/above optimal
130-159 mg/dL	Borderline high
160-189 mg/dL	High
190 mg/dL	Very High

### Okay, so my cholesterol is considered high, what do I do now?

Work with your doctor to identify a treatment plan that is right for you. Your doctor may suggest making some lifestyle changes such as modifying your diet, reducing your weight, and increasing your level of physical activity.

**Diet** - Saturated fats and cholesterol in the food you eat make your blood cholesterol level go up. Start checking the nutrition labels to find out how much fat and cholesterol something has before you begin eating. Read more in the nutrition section of this web site to find out how to lower your LDL (bad) cholesterol with the foods you eat every day.

**Weight** – Excessive weight increases your cholesterol, thereby increasing your risk of heart disease. By losing weight, you bring down your LDL (bad) cholesterol while you raise your HDL (good) cholesterol level. The fitness section

of this web site will give you examples of simple steps you can take to get in shape and help manage your cholesterol levels.

**Physical Activity** - Firefighters are often sedentary because of a need to be on call at the firehouse regardless of the number of incidents needing response. Doing physical activity for 30 minutes a day can help lower your LDL (bad) and raise your HDL (good) cholesterol as well as help you lose weight. Not bad huh? Talk to your doctor about an exercise plan that is right for you. You should aim to get at least 30 minutes of physical activity on most, if not all, days. If lifestyle changes, such as modifying your diet, losing weight, and increasing physical activity, aren't enough to lower your LDL (bad) cholesterol, your physician may discuss other treatment options. Because everyone is different, it is important to work with your doctor to identify the treatment plan that is right for you.