# **CHOLESTEROL**

By: John Marendes







# what is it?

Cholesterol is a steroid, a type of fat found in your blood. Your liver makes all the cholesterol your body needs to function. You also can get cholesterol from the foods you eat. Meat, fish, eggs, butter, cheese, and milk all have cholesterol in them.



Low-density lipoproteins (bad cholesterol) are bad because high levels of it can promote inflammation and force lipids to accumulate on the walls of blood vessels, forming plaques. These plaques can thicken and block blood and nutrients from getting to organs. High-density lipoproteins (good cholesterol) are good because they take cholesterol from the cells and bring them to the liver.



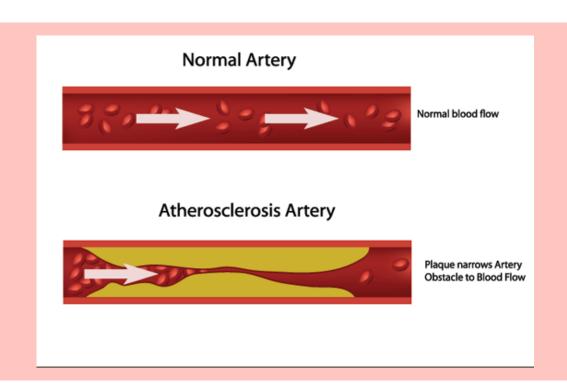
#### **Function**

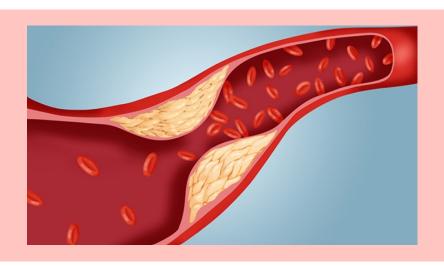
The body needs cholesterol to build cell membranes and to produce:

- The sex hormones estrogen and testosterone
- Other critical hormones like cortisol (stress hormone)
- Vitamin D
- Bile acids (which help the body digest fats)
- Insulation for nerve cells



Having higher levels of HDL may help lower your risk of developing cardiovascular disease. High levels of LDL cholesterol can lead to fatty deposits building up on the walls of arteries, which increases a person's risk of heart disease, heart attack, and stroke. (See Diagram Below)





# HOW TO LOWER CHOLESTEROL LEVELS

Effective ways to increase the "good" HDL cholesterol and lower the "bad" LDL cholesterol.

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# 1 DIET

Dieting is the most important step to lowering high cholesterol. In your diet you should reduce consumption of saturated fats and avoid eating trans fats.

Foods that are high in saturated fat include fatty meats, lard, and full-fat dairy products like butter and cream, coconuts, coconut oil, palm oil and dark chocolate. Fats that are mostly saturated (like butter) tend to be solid at room temperature, while fats that are mostly unsaturated (like olive oil) are liquid at room temperature.

Trans fats are industrially made and considered the worst type of fat you can eat. Trans fats are so unhealthy that the Food and Drug Administration has recently prohibited food manufacturers from adding the major source of artificial trans fat to foods and beverages. The manufactured form of trans fat, may be found in a variety of food products including baked goods, such as cakes, cookies and pies, microwave popcorn, frozen pizza, and fried foods, including french fries, doughnuts and fried chicken.

Focus on eating unsaturated fats including monounsaturated fats and polyunsaturated fats. Overall, unsaturated fats are healthy because they decrease harmful LDL cholesterol and increase good HDL cholesterol. Examples of foods with monounsaturated fats and polyunsaturated fats include olives and olive oil, canola oil, tree nuts, such as almonds, walnuts, pecans, hazelnuts and cashews, avocados, and fish. In addition, other non-fat foods have vitamins, minerals, and soluble fiber that have been proven to reduce the absorption of cholesterol into your bloodstream. These include whole grains like oats and barley, whole grain pasta and bread, brown rice, fruits and berries, vegetables, dark chocolate and cocoa, garlic, soybeans, and tea.

## 2 EXERCISE

Any type of exercise improves cholesterol and promotes heart health. Not only does it improve physical fitness and help combat obesity, but it also reduces harmful LDL and increases beneficial HDL. The longer and more intense the exercise, the greater the benefits.

### 3 LOSE WEIGHT

Dieting influences the way your body absorbs and produces cholesterol. Weight loss reduces total cholesterol, in part by decreasing the creation of new cholesterol in the liver. Overall, weight loss has a double benefit on cholesterol by increasing beneficial HDL and decreasing harmful LDL.

#### 4 DON'T SMOKE AND DRINK WISELY

Smoking appears to increase bad lipoproteins, decrease "good" HDL, and hinder the body's ability to send cholesterol back to the liver to be stored or broken down. Quitting smoking can reverse these effects. While heavy alcohol use increases heart disease risk and harms the liver, 1–2 drinks per day may improve HDL cholesterol and reduce the risk of clogged arteries.

# 5 USE SUPPLEMENTS

Fish oil supplements and soluble fiber supplements like psyllium, improve cholesterol and reduce the risk of heart disease. Coenzyme Q10 supplements reduce total cholesterol levels, but it's unclear whether this prevents heart disease.







