

Cholesterol--In Your Blood, In Your Diet

Cholesterol is a waxy substance found in all parts of your body. It helps make cell membranes, some hormones, and vitamin D. Cholesterol comes from two sources: your body and the foods you eat. Blood cholesterol is made in your liver. Your liver makes all the cholesterol your body needs. Dietary cholesterol comes from animal foods like meats, whole milk dairy foods, egg yolks, poultry, and fish. Eating too much dietary cholesterol can make your blood cholesterol go up. Foods from plants, like vegetables, fruits, grains, and cereals, do not have any dietary cholesterol.

LDL- and HDL-Cholesterol: The Bad and The Good

Just like oil and water, cholesterol and blood do not mix. So, for cholesterol to travel through your blood, it is coated with a layer of protein to make a "lipoprotein." Two lipoproteins you may have heard about are low density lipoprotein (LDL) and high density lipoprotein (HDL). LDL-cholesterol carries most of the cholesterol in the blood. Remember, when too much LDL-cholesterol is in the blood, it can lead to cholesterol buildup in the arteries. That is why LDL-cholesterol is called the "bad" cholesterol. HDL-cholesterol helps remove cholesterol from the blood and helps prevent the fatty buildup. So HDL-cholesterol is called the "good" cholesterol.

Things That Affect Blood Cholesterol

Your blood cholesterol level is influenced by many factors. These include:

- **What you eat**--High intake of saturated fat, dietary cholesterol, and excess calories leading to overweight can increase blood cholesterol levels. Americans eat an average of 12 percent of their calories from saturated fat, and 34 percent of their calories from total fat. These intakes are higher than what is recommended for the health of your heart. The average daily intake of dietary cholesterol is 220-260 mg for women and 360 mg for men.
- **Overweight**--Being overweight can make your LDL-cholesterol level go up and your HDL-cholesterol level go down.
- **Physical Activity**--Increased physical activity lowers LDL-cholesterol and raises HDL-cholesterol levels.
- **Heredity**--Your genes partly influence how your body makes and handles cholesterol.
- **Age and Sex**--Blood cholesterol levels in both men and women begin to go up around age 20. Women before menopause have levels that are lower than men of the same age. After menopause, a woman's LDL-cholesterol level goes up--and so her risk for heart disease increases.

Have Your Blood Cholesterol Checked

All adults age 20 and over should have their blood cholesterol (also called "total" blood cholesterol) checked at least once every 5 years. If an accurate HDL-cholesterol measurement is available, HDL should be checked at the same time. If you do not know your total and HDL levels, ask your doctor to measure them at your next visit.

Total and HDL-cholesterol measurements require a blood sample that is taken from your arm or finger. You do not have to fast for this test. If you have had your total and HDL-cholesterol checked, check the chart to see how they measure up.

Blood cholesterol levels of under 200 mg/dL are called "desirable" and put you at lower risk for heart disease. Any cholesterol level of 200 mg/dL or more increases your risk; over half the adults in the United States have levels of 200 mg/dL or greater. Levels between 200 and 239 mg/dL are "borderline-high." A level of 240 mg/dL or greater is "high" blood cholesterol. A person with this level has more than twice the risk of heart disease compared to someone whose cholesterol is 200 mg/dL. About one out of every five American adults has a high blood cholesterol level of 240 mg/dL or greater.

Unlike total cholesterol, the lower your HDL, the higher your risk for heart disease. An HDL level less than 40 mg/dL increases your risk for heart disease. The higher your HDL level, the better. In certain cases, it may be necessary to have your LDL-cholesterol checked, too, because it is a better predictor of heart disease risk than your total blood cholesterol. You will need to fast. That means you can have nothing to eat or drink but water, coffee, or tea, with no cream or sugar, for 9 to 12 hours before the test.

If your doctor has checked your LDL level, use the chart below to see how it measures up.

LDL-Cholesterol Categories

Less than 130 mg/dL	Desirable
130 to 159 mg/dL	Borderline-High Risk
160 mg/dL and above	High Risk

Note: These categories apply to adults age 20 and above.

If your LDL-cholesterol level is high or borderline-high and you have other risk factors for heart disease, your doctor will likely plan a treatment program for you. Following an eating plan low in saturated fat and cholesterol and increasing your physical activity is usually the first and main step of treatment. Some people will also need to take medicine. *(If you have high blood cholesterol and would like more details on what it means and what you should do about it, contact The National Heart, Lung and Blood Information Center*

Source: *The National Heart, Lung and Blood Information Center*