

LIVING STRONGER, LONGER: GET SMART ABOUT CHOLESTEROL

Cholesterol is a fat-like substance found in body cells. It is used to form cell membranes, certain hormones and is a component in other needed tissues. It is made naturally in the body and it is also found in certain foods. However, if there is too much in the body, it builds up in the walls of arteries that supply blood to the heart and body. Over time, this build up causes the arteries to narrow and blood flow to the heart slows down or becomes blocked. This condition is called *atherosclerosis* (also called *hardening of the arteries*). *Atherosclerosis* can lead to a heart attack or stroke.



What do your cholesterol numbers mean?

Everyone age 20 and older should have cholesterol measured at least every 5 years. Cholesterol can be checked by a blood test called a “lipoprotein profile”. Lipoproteins carry cholesterol through the blood and can indicate the level of cholesterol in the bloodstream. Through a blood test you may get numbers for *low density lipoprotein (LDL)* and *high density lipoprotein (HDL)*. LDL is often called “bad” cholesterol while HDL is often called the “good” cholesterol. LDL can build up on artery walls and lead to atherosclerosis. HDL tends to be more efficient at carrying cholesterol out of the blood and into the liver where it passes from the body. HDL levels of 60 mg/dL or more help to lower your risk for heart disease. Certain individuals may have high HDL levels which may increase their total cholesterol level but not necessarily increase their risk for heart disease. It is important to discuss cholesterol numbers with a health care provider to receive accurate interpretation. *Triglycerides* are another form of fat made in the body and found in certain foods. They can also raise heart disease risk. Levels that are borderline high (150-199 mg/dL) or high (200 mg/dL or more) may need treatment. Higher levels often appear when total cholesterol and LDL levels are elevated.

Total Cholesterol Level

Desirable.....Less than 200 mg/dL
Borderline high.....200-239 mg/dL
High.....240 mg/dL and above

LDL Cholesterol Level

Optimal.....Less than 100 mg/dL
Near optimal.....100-129 mg/dL
Borderline high.....130-159 mg/dL
High.....160-189 mg/dL
Very high.....190 mg/dL and above

What affects cholesterol levels?

- Diet.** Saturated fat and cholesterol in foods can make blood cholesterol go up. Dietary cholesterol is only found in food from animal sources such as beef, pork, fish, poultry, egg yolks and dairy products. Foods from plants *do not* contain

cholesterol. The American Heart Association recommends limiting dietary cholesterol intake to less than 300 mg per day. Certain plant oils contain *saturated fatty acids* that can also raise cholesterol levels in the body. Examples include lard or hydrogenated shortening, butter, coconut oil, palm oil, palm kernel oil and cocoa butter. Limit saturated fat to less than 30% of total daily calorie intake.

- ❑ **Weight.** Being overweight can raise cholesterol levels in the body. Maintaining a healthy weight can lower “bad” cholesterol and raise “good” cholesterol and reduce the risk for heart disease.
- ❑ **Physical activity.** Lack of exercise can make the heart less efficient and increase the risk for excess body fat and weight gain. Excess body fat can raise cholesterol.
- ❑ **Hypertension.** High blood pressure wears down the lining of blood vessels making them weaker and prone to cholesterol build up.
- ❑ **Smoking.** Smoking lowers good HDL cholesterol and damages the lining of vessels making blood flow less efficient. Cholesterol is harder to remove.
- ❑ **Stress.** Unresolved stress can cause blood vessels to narrow, raise blood pressure and increase the heart rate. These factors will affect the body’s ability to efficiently remove excess cholesterol from the blood.
- ❑ **Age/gender/heredity.** Cholesterol levels tend to rise with age in both men and women and with the onset of menopause in women. In addition, genetics may play a role in determining how the body makes cholesterol. High cholesterol can be higher in certain families or races.

What steps can reduce high blood cholesterol?



Choose most foods from fresh fruits, vegetables and whole grains. Eat less egg yolks, processed food, sweets, high-fat meat and high-fat dairy products like butter, cream, whole milk, ice cream and cheese. Take time to read nutrition labels.

Remember the 3 B’s when cooking: Broil, Boil and Bake. Cook with less fat. Choose poly or mono saturated oils like canola, soybean, olive or safflower. Use more herbs and spices and less salt.

Remove skin and visible fat from meats and avoid gravies that add fat. Limit intake of egg yolks to no more than 3 or 4 per week.

Stay active! Regular physical activity of 30 minutes or more on most days of the week is advisable for most people. A wide variety of choices are available to suit every ability level like walking, biking, swimming, tennis, golf, and gardening.

Discuss drug treatment options with a health care provider. Drugs cannot replace healthy lifestyle choices but certain individuals may need additional support from medications that may help to lower cholesterol.

For additional resources log onto: www.nhlbi.nih.gov or www.healthfinder.gov