



Health Facts Cholesterol & Health



Introduction

Because of its reputation as a risk factor for heart disease, people tend to think of cholesterol only in negative terms. But cholesterol is an important component of cell membranes and is vital to the structure and function of all of your body's cells. Cholesterol also is a building block in the formation of certain types of hormones.

Still, 37 million American adults have high blood cholesterol levels, and 105 million have cholesterol levels that are higher than desirable (hypercholesterolemia). If you're one of these people with this largely preventable condition, you may be on your way to heart disease.

Why is high cholesterol so bad?

When the levels of cholesterol and triglycerides, a blood fat, in your bloodstream become too high, your likelihood of developing cholesterol-containing fatty deposits (plaques) in your blood vessels increases. Over time, plaques cause your arteries to narrow, which impedes blood flow and creates a condition called atherosclerosis. Narrowing of the arteries that supply your heart with blood (coronary artery disease) can prevent your heart from getting as much oxygen-rich blood as it needs. This means an increased risk of a heart attack. Likewise, decreased blood flow to your brain can cause a stroke. Less blood flowing to your lower limbs may result in exercise-related pain or even gangrene.

The good news is that with the help of lifestyle changes and possibly medications, you may be able to lower your high blood cholesterol. It's estimated that if there were a 10 percent reduction in cholesterol levels throughout the U.S. population, the rate of heart disease would drop by 30 percent.

What are the LDL's and HDL's?

- Low-density lipoprotein (LDL). This cholesterol is sometimes called "bad" cholesterol because it transports cholesterol to sites throughout your body, where it's either deposited or used to repair cell membranes.
- High-density lipoprotein (HDL). This cholesterol is sometimes referred to as "good" cholesterol because it helps clear excess cholesterol from your body.

Having a low level of LDL cholesterol and a high level of HDL cholesterol is desirable for lowering your risk of developing plaques and coronary artery disease.

How can I prevent high cholesterol?

Lifestyle changes are your first course of action to improve your blood cholesterol levels. These approaches include eating a healthy diet, exercising and not smoking.

Control total fat. Limit all types of fat — saturated, polyunsaturated, especially trans fatty acids (trans fats) and monounsaturated — to no more than 30 percent of your total daily calories.

Limit dietary cholesterol. Your daily limit for dietary cholesterol is 300 milligrams, or less than 200 milligrams if you have heart disease. To accomplish this goal, limit or avoid concentrated sources such as organ meats, egg yolks and whole-milk products.

Eat foods with soluble fiber. As part of a low-fat diet, soluble fiber can help lower your total blood cholesterol level. Foods high in soluble fiber include oat bran, oatmeal, beans, peas, rice bran, barley, citrus fruits, strawberries and apple pulp.

Eat more fish. Some fish — particularly fatty types prevalent in cold water, such as salmon, mackerel and herring — contain high amounts of a unique type of polyunsaturated fat called omega-3 fatty acids. Omega-3s may lower your level of triglycerides.

Consider soy products. Soy compounds called isoflavones act like human hormones that regulate cholesterol levels. Eating soy proteins can reduce your levels of total cholesterol, LDL cholesterol and triglycerides. Eating soy may also raise your level of HDL cholesterol, which may protect you against heart disease.

Drink alcohol in moderation, if at all. Moderate consumption of alcohol may raise your level of HDL cholesterol. The best advice is to drink in moderation, if you drink at all. Limit alcohol to one drink daily if you're a woman or to no more than two drinks daily if you're a man.

Reduce sugar intake. This is a way of lowering triglyceride levels. Ideally, your triglyceride levels should be lower than 150 mg/dL.

Not smoking

If you smoke, stop. If you don't smoke, don't start. Cigarette smoking damages the walls of your blood vessels, making them prone to accumulating fatty deposits.

If you suspect you have high blood pressure, visit your doctor. Lifestyle changes are the first steps you can take to improve your blood levels of cholesterol and triglycerides. These include changes in diet, regular exercise and avoiding smoking. If you've made these important lifestyle changes and your total cholesterol — especially your level of LDL cholesterol — remains high, your doctor may recommend prescription medication.

For more information on this and other health and wellness topics, visit Navy Knowledge Online (NKO) at <http://www.nko.navy.mil> or the Navy Environmental Health Center (NEHC) at <http://www-nehc.med.navy.mil/hp>.