

High Cholesterol Level

Most Americans, including doctors, are victims of a mass campaign against a substance produced by our own bodies. Cholesterol is a steroid that is essential for the maintenance of the body's cells. It is not necessarily the monster we have been led to believe that it is. It helps the liver digest fats and works with protein and lecithin to transport fats through our blood. Not only that, but cholesterol helps manufacture important male and female sex hormones. In addition, cholesterol helps keep skin moist. Cholesterol is so important that if not enough comes from food, the liver manufactures it. It is so essential that, unless it is oxidized, it is produced daily to build the membranes of new cells that must be formed in place of dead and dying cells.

Most of us think of cholesterol as a type of fat, but, as mentioned above, it is really a special kind of alcohol, called a steroid alcohol or sterol. Normally, most cholesterol is found in cells, and only a small amount is found in the blood. Doctors do not worry about cholesterol in the cells, but when levels in the blood get high, the substance can clog arteries and put a strain on the heart.

Actually, the cholesterol number alone is not enough to say that a potentially dangerous situation exists. It is also important to test triglyceride and lipoprotein levels (as part of a regular SMA-24 blood test). An elevated triglyceride level indicates a poorly functioning liver or pancreas. This is dangerous because triglycerides are blood fats and may play a part in clogging the arteries with harmful plaque. Lipoproteins are compounds composed of fat and protein, and of particular interest to the health-conscious are high-density lipoproteins (HDLs) and low-density lipoproteins (LDLs). HDLs are low in cholesterol and high in phospholipids, and are considered the "good guys" by heart specialists

because they lessen the chance of heart disease. Having too many LDLs, on the other hand, are what doctors worry about. LDLs contain high levels of cholesterol and have a tendency to stick to the walls of arteries and build up as plaque. Too many LDLs, therefore, increase the risk of atherosclerosis, a condition in which the arterial walls are damaged by cholesterol and result in normal blood flow being blocked. An important factor to consider when testing cholesterol is the ratio of HDL versus the total serum cholesterol level. Ratios of 4:1 or better (i.e., the first number is lower than the four) are desirable.

DOES CHOLESTEROL EVEN MATTER?

Once you have taken steps to reduce homocysteine and enhance methylation, do you even need to worry about cholesterol levels? While the correlation between high cholesterol and heart disease is not as strong as we once thought, I won't go so far as to say that cholesterol doesn't matter at all. Very high (or very low) cholesterol is an indication that the body is out of balance. A holistic approach to health seeks to bring every part of the body's chemistry, including cholesterol levels, into optimal balance.

Many people have come to believe that the less cholesterol in your blood, the better off you are. But, in fact, cholesterol is an important and necessary substance. It is the basic material used for the synthesis of all the steroid hormones, including DHEA and testosterone. (The term *steroid* is, in fact, derived from *cholesterol*.) Cholesterol provides lipids needed to build healthy cell membranes. It also helps the body produce bile, which is needed for proper digestion of fats.

Cholesterol is not the enemy. You need a healthy amount of cholesterol in your body in order to function well and be healthy. Very low cholesterol levels can actually *increase* your risk of cancer, stroke, respiratory and digestive diseases. So with cholesterol, as with everything else, optimal health is a question of balance.

An ideal range for total cholesterol is between 160 and 180 mg/dL. If you are taking measures to lower cholesterol (whether pharmaceutical or the nutrient protocols outlined below), and you find that your cholesterol has dipped below 140 mg/dL, it may be a sign that you are overdoing it. I recommend that you discuss with your doctor whether to reduce your dosage slightly, allowing cholesterol levels to recover into the ideal range.

Treatment

Dependence on cholesterol-lowering medications is unnecessary and unsafe. Plus, many have toxic side effects. Unless a person suffers from a rare genetic disorder called hypercholesterolemia, where high blood cholesterol levels begin at birth, there are safer, more natural ways to keep cholesterol levels down.

Eating less cholesterol-containing food would seem to be a good approach, and indeed the goal of lowering high dietary cholesterol intake has received much publicity in recent years. The problem is that cutting out eggs, steak and dairy products does not necessarily correct high blood cholesterol. While cutting down on fatty foods is an excellent suggestion for most Americans who eat far more fat than they need, this approach alone may not be sufficient for lowering cholesterol because cholesterol is produced by the body. The body may respond to a sharp reduction in cholesterol by manufacturing more on its own. The body can make as much as 1500 mg of cholesterol a day, more than six times the amount normally eaten!

It is interesting to note that certain ethnic groups, such as the Masai tribes of Africa and the Eskimos, have high-cholesterol diets and yet have low levels of serum cholesterol and few incidences of heart disease. So, factors other than cholesterol intake must obviously come into play. Some of these factors are genetics, nutritional status, stress, exercise, age and blood triglyceride levels.

Diet

Instead of cutting out cholesterol-rich foods completely, a better approach might be to add more fiber. Roughage increases the speed at which the body eliminates cholesterol. Pectin, found in apples, is especially good for this. Also, eating old-fashioned hot grain cereal, such as rolled oats, oat bran, barley or buckwheat, is helpful in this regard. Adding pectin-rich apples to the cereal doubles the benefit. It is especially important to have 4-6 g of soluble fiber such as pectin, guar gum or psyllium before eating any meal high in fat.

Caution: Do not take psyllium if you already take the prescription drug nitrofurantoin or digitalis.

Artichoke leaf extract has impressive cholesterol-lowering advantages. In a number of studies, artichoke leaf extract has been shown to actually restrict cholesterol synthesis, an effect that persists for hours following initial exposure. As a supplement, 300 mg of artichoke leaf extract can be taken three times a day.

The benefits of garlic are undeniable. Studies have shown that liquid garlic extract inspires cholesterol reduction and protects the arterial lining from damage caused by oxidation. But most importantly, garlic prevents thrombosis, the cause of arterial blood clots and the main reason for strokes and heart attacks. In supplement form, garlic is beneficial for this condition in doses of 900-8000 mg per day.

Incorporate curcumin, otherwise known as turmeric root, into your diet. This ancient spice has been proven to cause significant cholesterol drops in a mere matter of days. Like garlic, turmeric also helps to inhibit the formation of abnormal blood clots. To receive its full benefits, take 900-1800 mg of curcumin daily.

Another ancient remedy that has recently been revived in the West is guggulipid. Guggulipid is derived from the resin of a certain type of north Indian tree. It should be taken in 140-mg doses once or twice per day.

Green tea will also lower undesirable forms of cholesterol. Drink one to three cups of green or black tea, or take one 350-mg capsule of 95-percent green tea every day.

Fish oil can reduce triglycerides by more than a third, on average, and is especially beneficial when taken in conjunction with garlic. If the fish oil causes stomach upset, perilla oil may be substituted. Perilla oil is a relatively new essential fatty acid source and is much easier on the gastrointestinal tract. Fish oil is preferable, however, if triglyceride levels are especially high.

Foods high in vitamin B6 (pyridoxine) are helpful. As this water-soluble vitamin tends to get lost in cooking, it is best to include plenty of raw fruits and vegetables in the diet. Leafy green vegetables are especially high in B6.

Lecithin-rich soy products, such as tofu and tempeh, are also important. Numerous studies have shown that soy protein plays a beneficial role in cardiovascular health. The phytochemicals in soy appear responsible not only for reduced incidences of heart disease, but for fewer cancers as well. Taking 5-6 g (about 2 teaspoons) of soy powder or a 135-mg capsule of 40-percent soy extract twice daily may be helpful.

The omega-3 fish oils, which contain EPA and DHA, have also been shown to reduce risk of heart disease. So too has eating fish. If you've had a heart attack and start eating omega-3-rich fish three times a week, you could halve your risk of a further heart attack. Other trials giving people omega-3 fish oils have found that they do indeed confer protection from heart disease.¹⁰ Exactly how they work is still under investigation. Omega-3 fats are anti-inflammatory, and artery damage involves inflammation. They also thin the blood and, in combination with vitamin E, are much more effective and considerably safer than aspirin.

Supplements

Many people are deficient in vitamins and minerals that keep cholesterol levels under control. Niacin (vitamin B3) is important for cholesterol control and can be found in a variety of foods, including leafy greens, wheat germ, beans, peas, salmon and tuna. It can also be taken as a supplement, though most individuals cannot handle the 1000 to 3000-mg dose needed for cholesterol-level suppression. Niacin helps to lower triglycerides as well as cholesterol and to raise beneficial HDL levels. Note that niacin should be used cautiously by those with a history of gout, liver dysfunction or diabetes. In high levels, niacin can cause liver toxicity. People with hepatitis should not take niacin. When taking niacin in dosages exceeding 1000 mg per day, liver enzymes should be monitored every six months. The effects of niacin are enhanced by vitamin C. Flush-free niacin (to prevent a reddened face) should be used.

One of vitamin C's many wonders is that it helps to lower cholesterol; anywhere from 1000 to 10,000 mg are needed each day (requirements increase in colder months and during periods of illness and stress). Vitamin C is best used in combination with bioflavonoids, especially rutin and quercetin. When combined with lecithin, it helps to dissolve arterial plaque. (Encapsulated liquid lecithin should have a phospholipid-choline content of at least 35 percent, and should deliver a minimum potency of 51.5-percent phosphatides. Granulated lecithin should be labeled 25-percent phosphatidyl choline, and should not have soy flower added to it.)

Vitamin E (400-800 IU daily) should not be overlooked. Vitamin E slows aging, and it is a known protector against several dozens of diseases. It will also improve circulation to the heart.

Vitamins B6 and methionine balance triglyceride levels, and ultimately help to normalize cholesterol.

Studies reveal the best cholesterol-lowering minerals to be chromium, calcium, magnesium, zinc and selenium. Selenium may be taken in the amount of 200-600 mcg per day.

Warning: monitor the use of supplements to reduce cholesterol. Have a cholesterol blood test 45 to 60 days after beginning the regimen. If supplements fail, drugs may be considered.

Herbs

Ginger and cayenne decrease liver production of cholesterol and triglycerides, according to studies. In addition, plenty of garlic should be eaten, as it lowers cholesterol and thins the blood, lessening the chances of dangerous blood clots. Raw garlic is most effective, but even cooked, this herb has a therapeutic effect. Deodorized capsules and pills are least effective, though, because it is the allicin, the smelly part of the garlic, that makes it useful. The ganoderma mushroom helps reduce cholesterol, triglycerides and total number of fats in the bloodstream.

Exercise

Exercise seems to help raise HDL and lower LDL levels, although it may take several months before there is a noticeable change.

The Many Benefits of Exercise

You probably know that exercise helps you increase your muscle mass and reduce your body fat levels. Aerobic exercise in particular helps you improve your cardiovascular health. As you learned, another of benefit of exercise is that it aids in your whole body detox and cleansing program.

In addition to all of these benefits, exercise also helps you increase your HDL cholesterol and lower your LDL cholesterol – the very goal we are trying to accomplish in your cholesterol treatment plan. Getting 20 – 30 minutes of aerobic exercise every day is sufficient to better balance your HDL and LDL cholesterol. What is even more amazing is that the benefit to helping you achieve normal cholesterol levels is gained even if this exercise is broken down into smaller events – such as walking for 15 minutes in the morning and another 15 minutes at lunch time. I started walking my dog once a day for about 30 minutes - fortunately, my dog likes brisk walks. The pros and cons of various types of aerobic exercises that should be part of your cholesterol treatment plan are provided in exercise benefits .

What to Avoid

Many people replace cholesterol-rich foods with artificial ones—fake eggs, margarine, imitation bacon, nondairy cream, etc. But there is no evidence supporting that these fake foods prevent heart trouble, and they are associated with a higher incidence of cancer.

Foods containing refined sugars lead to an unhealthy buildup of fats in the liver and tissues. They also lower the level of healthy HDLs and increase the unwanted LDLs. Refined foods should be replaced with complex carbohydrates—fruits, vegetables and whole grains. Note that alcohol is high in refined sugar and should be avoided.

Many medications, including steroids and contraceptives, can increase cholesterol and triglyceride levels and destroy the nutrients needed for maintaining normal levels. In fact, studies reveal that people on steroid medications have a 50 percent increase in blood cholesterol levels. Excessive amounts of protein and cooked foods can also destroy cholesterol-controlling nutrients. Another factor that tends to raise cholesterol levels is stress, which is one of the reasons that stress avoidance—or management—is so important.

Liver Cleanse

A liver cleanse is an important part of a natural cholesterol treatment plan. Your liver creates 3 to 8 times the cholesterol that a normal diet contains. If you cut your cholesterol intake completely, you would still be getting 75% to 95% of the cholesterol you are getting today. Performing a liver cleanse will make your liver more efficient and effective at performing all its functions, including making cholesterol. Therefore, cleansing your liver is one of the best things you can do to regain balance of your cholesterol. With one liver cleanse, I was able to lower my LDL cholesterol by 10 mg/dL (in addition to what I was able to accomplish with all of the other steps). By lowering your LDL cholesterol level, a liver cleanse helps you achieve one of the goals of your cholesterol treatment plan.

Blood Sugar Changes and LDL Cholesterol

Controlling your blood sugar is increasingly recognized as a key element in a cholesterol treatment plan. Rapid changes in your blood sugar and the presence of excess insulin in your blood increase the LDL cholesterol levels in your blood.

Foods such as simple sugars that rapidly raise your blood sugar are said to have a high glycemic index. Foods such as complex carbohydrates that take longer to digest, and thus do not as quickly affect your blood sugar level, are said to have a low glycemic index.

Recent studies have found that high glycemic index foods tend to raise your LDL cholesterol level. High glycemic index foods cause your body to generate excess insulin. This excess insulin causes your cells to generate cholesterol, rather than consume it from your bloodstream. This leads to an increase in LDL cholesterol in your blood.

Therefore, eating low glycemic index foods is a key part of a cholesterol treatment plan.

Food to Lower Cholesterol

Avoiding high cholesterol food completely will likely not be an effective cholesterol treatment plan to lowering cholesterol levels. Remember, your liver makes far more cholesterol than you induce in your diet. Moreover, so-called high cholesterol foods contain nutrients that help you fight other ailments. Completely eliminating these foods deprives you of these essential nutrients. Therefore, eating certain high cholesterol foods in moderation is good for you and will not adversely affect your cholesterol levels.

Instead of avoiding high cholesterol foods completely, a better alternative for your cholesterol treatment plan is to eat foods that lower cholesterol. Certain foods, such as soluble fiber, have properties that have been proven to increase your HDL cholesterol and also lower your LDL cholesterol. For example, I recently ran across a fiber supplement that has been clinically trialed and proven to lower LDL cholesterol twice as effectively as oat fiber (25 mg / dL vs. 11 mg / dL). It also helped control blood sugar spikes in Type 2 diabetics. If you do nothing else recommended on this page, I suggest that consider this product and the science behind it.