Anti-Cholesterol Herbs

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There are over 50 million Americans with high cholesterol. High cholesterol is a risk factor for heart disease, stroke and Alzheimer’s disease. Cholesterol is a fatty substance necessary for hormone production and insulating nerve fibers.

When there is too much cholesterol, it builds up on the arterial wall, causing narrowing of the arteries and impeded blood flow. "Bad," or LDL, cholesterol represents cholesterol moving through the body. Elevated levels of LDL increase the risk of heart disease. "Good," or HDL, cholesterol protects against heart disease as it measures cholesterol being cleared from the body. Triglycerides are also associated with a risk of heart disease and diabetes. It is ideal to keep triglyceride levels below 150 mg/dL; total cholesterol below 200; LDL below 130; and HDL above 40.

Although drugs can be used to lower cholesterol, side-effects are common and include digestive complaints; dizziness; headaches; rashes; and muscle and liver damage. Exercise and diet recommendations are extremely important in treating high cholesterol. We also recommend that patients with high cholesterol have a daily stress reduction and exercise program. This is believed to be protective against heart disease, and has many other health benefits, such as lowering high blood pressure and diabetes risk.

Dietary Recommendations

Eat plenty of fruits and vegetables. These contain fiber and antioxidants. Soluble fiber has been shown to reduce LDL and total cholesterol if you consume five grams to 10 grams daily. Good sources of soluble fiber include beans; lentils; oats; barley; apples; citrus fruits; pears; brussels sprouts; carrots; and flaxseed. If you are not allergic to soy products, they also reduce cholesterol levels. It is also important to avoid trans fats, which are found in many margarine and processed foods, such as vegetable shortening, hydrogenated fats or partially hydrogenated fats. Similarly, refined carbohydrates, such as those found in cookies; cakes; crackers; chips; and sodas should be avoided, as they can increase triglycerides and may lower HDL cholesterol. Dairy products are not advised, as they contain saturated fat. All meat and poultry consumed should be lean.
Must You Avoid All Fat?

Olive oil has been found to lower LDL cholesterol. Extra virgin olive oil is rich in antioxidants that protect LDL cholesterol from oxidation, an early step in plaque formation. Fish oil and flax oil also appear to protect the heart, and may support normal cholesterol levels. Fish containing omega-3 fatty acids, such as salmon, tuna, mackerel and sardines, can be eaten as much as desired. The dosage of flax is one to three tablespoons per day in the form of freshly ground seeds or oil, which can be used as a salad dressing or cooked vegetable garnish. Finally, moderate intake of nuts may also protect against heart disease, high triglycerides and cholesterol levels. A handful of almonds, walnuts or cashews are recommended.

Gugulipid

Gugulipid is derived from a species of myrrh called *commiphora mukul*. This plant is traditionally used to treat obesity and fat obstruction. This has led scientists to study gum guggul and its extracts in order to lower cholesterol and triglycerides, and to aid in weight loss. In scientific studies, gugulipid has been shown to lower bad LDL cholesterol and triglycerides, and raise beneficial HDL cholesterol. As reported in the May 30, 2002 issue of *Science*, a research team at Baylor School of Medicine found that the plant sterol guggulsterone may block a receptor in the liver cells involved with cholesterol metabolism. This receptor is known as FXR (farnesoid X receptor). FXR plays a crucial role in cholesterol metabolism by mediating the rate of bile acid produced by the liver (cholesterol is eliminated from the body through bile release). For example, in a 12-week study with a controlled diet, gugulipid significantly reduced total cholesterol and triglycerides levels in 78.9 percent of patients.

In human experiments, cholesterol levels typically drop 14 percent to 27 percent in four to 12 weeks, while triglycerides drop 22 percent to 30 percent. Typical dosage in clinical studies corresponds to 25 milligrams of guggulsterone three times per day. Gugulipid performs similar to cholesterol-lowering medication without side-effects. It appears that gugulipid helps the liver metabolize cholesterol and stimulates thyroid function. This extract may also prevent the development of atherosclerosis and inhibit platelet aggregation, thus preventing stroke or embolism. It also has anti-inflammatory properties in laboratory experiments.

Gugulipid is found along with policosanol in a compound called polilipid, which is processed to be rich in guggulsterones. The general dosage is one to two tablets per day before meals, although better results may be obtained using three to four tablets per day.
Policosanol

Policosanol is a plant product derived from rice bran or sugar cane that has been demonstrated in multiple clinical studies to safely reduce LDL ("bad") cholesterol while significantly raising HDL ("good") cholesterol. In addition, it can be used to improve pain-free walking distance for people with intermittent claudication (hardening of the arteries). Policosanol is comprised of the long chain fatty acids octacosanol; hexacosanol; tricontanol; tetracosanol; and dotricontanol.

At the University of Bonn, Germany, a review of scientific studies was conducted. At doses of 10-20 mg/day, policosanol lowered total cholesterol by 17 percent to 21 percent; LDL cholesterol was reduced by 19 percent to 21 percent; and HDL cholesterol was raised 8 percent to 15 percent. In a six-month study, 10 mg of policosanol per day reduced total cholesterol by 16 percent and LDL cholesterol by 24 percent, and increased HDL cholesterol by 29 percent. In another study, participants received either 20 mg/day or 40 mg/day of policosanol, or a placebo for six months. LDL cholesterol dropped and HDL cholesterol increased in both groups that received policosanol. There was no change in the placebo group. Researchers found that there was little difference between the two dosage levels.

Policosanol has also been compared with drugs. For example, in a trial involving 113 patients, 59 patients received 10 mg per day of policosanol with a low-cholesterol diet, and 54 patients were given besafibrate at 400 mg per day while on a low-cholesterol diet for eight weeks. In policosanol-treated subjects, LDL cholesterol fell by 18 percent and triglycerides by 15 percent, while in the drug group, LDL fell 11 percent and triglycerides by 6 percent. To test the effects with coronary heart disease (CHD) and high cholesterol, a 23-patient, double-blind study was conducted. Electrocardiogram (ECG) and serum blood samples were followed for 14 months. The policosanol group showed a reduction of total and LDL cholesterol, and five of 12 patients exhibited a tendency to improve their CHD. Further studies have indicated equal effectiveness to the chemical drugs lovastatin, simvastatin and provastatin. It is hypothesized that policosanol inhibits cholesterol synthesis in the liver. Not all studies show a triglyceride-lowering effect.

Herbal Formulas

One very successful formula incorporates garlic (da suan); astragalus (huang qi); polygonum (he shou wu); red ganoderma (ling zhi); cratageus (shan zha); angelica (dang gui); salvia (dan shen) and white atractylodes (bai zhu). It is used primarily to treat and prevent hyperlipidemia, atherosclerosis and degenerative disorders of the cardiovascular system. In China, much research has been conducted on the circulatory system.
The main ingredient in this formula is garlic, which has been found to have vasodilatation effects on peripheral blood vessels, as well as anti-atherosclerosis and anti-hypertensive effects. In a study in which 800 mg per day of garlic in pill form were administered, 261 patients showed a 12 percent reduction in cholesterol, compared with a 3 percent reduction in a control group taking a placebo. It should be mentioned that the garlic has been concentrated and prepared so that it does not cause breath odor.

Astragalus is known to tonify qi and stabilize the exterior. Animal experiments have shown a decoction of astragalus injected intravenously to have a strong blood-pressure-lowering effect through vasodilatation, and an increase in cardiac output.

Research on he shou wu has found this herb to possess properties that lower blood cholesterol levels. In vitro studies of filtered decoctions of he shou wu have shown sedimentation to occur when cholesterol was added to the decoction. Experimental animals fed high cholesterol diets, then given preparations of he shou wu, showed decreased levels of fibrous plaque formations as opposed to control group animals. In a clinical trial composed of 86 patients whose overall serum cholesterol level was 295, a he shou wu preparation was administered for two months, resulting in an average drop of 38.2 mg. There were no side-effects.

Ganoderma is known to have immune enhancing effects. Research has found it to also possess certain effects on the circulatory system, primarily in treating angina and other accompanying symptoms of coronary heart disease. Its anti-cholesterol activity is still being investigated.

Crataegus is known in Chinese medicine for removing food stagnation. It has also been shown to have anti-cholesterol properties. In a clinical trial of 20 patients whose average cholesterol level was 252.2 mg, crataegus was administered daily for six weeks. All patients showed a decline in cholesterol levels, with the average decrease for the entire group being 46.2 mg. Other research has found crataegus leaves and flowers to possess anti-hypertensive properties.

Angelica is a strong tonifier of blood. It also reduces blood pressure effectively. In animal studies angelica preparations, including decoctions and tinctures, reduced blood pressure. Other animal studies have found that angelica may protect blood vessel walls against plaque adhesion.

Salvia activates blood and removes blood stasis. In a clinical trial, 34 patients were treated for thromboangitis obliterans using powdered salvia soaked in wine, for 15 days. Fifteen patients experienced complete relief from their symptoms; nine showed marked improvement; three showed some improvement;
and seven patients experienced no changes in symptoms. Most patients remarked that after taking the salvia wine, their pain was alleviated and they had sensations of heat spreading (or even rushing) into their extremities. Most individuals did not experience side-effects, although a few suffered itching of the skin. In another clinical trial of 323 patients who had coronary heart disease, salvia tablets (20 mg of herb each) were administered orally for 10 months. About 80 percent of these patients experienced complete relief from their angina.

The final herb in the formula is white atractylodes. In Chinese medicine, it is known to tonify the Spleen/Stomach and dry dampness. Research has shown white atractylodes to possess anticoagulative properties. Healthy volunteers who took one tablespoon of a 1:20 solution of atractylodes decoction, three times daily for four days, showed an increase in prothrombin time. This returned to normal 10 days after administration was stopped.

**Conclusion**

While the garlic formula and the gugulipid/policosanol combination are effective at reducing cholesterol levels, it is important that they be combined with a stress reduction and exercise program, and a diet rich in fresh fruits and vegetables. The usual dosage of the gugulipid/policosanol combination is one to two tablets a day before meals, however, for a stronger effect, two tablets twice per day before meals is recommended. The average dose of the garlic formula is three tablets three times per day, before or between meals. For relatively healthy individuals with high cholesterol, the gugulipid/policosanol formula may be the best choice. For individuals suffering from degeneration of the cardiovascular system, the garlic formula or a combination of garlic formula with the gugulipid/policosanol compound may prove to work best. Clinical experience has revealed that these preparations, if used correctly, are compatible with pharmaceutical drugs. However, any reduction in medication should be supervised by the patient’s physician.

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