

Natural Supplements Proven to Lower Cholesterol and Triglycerides

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A few years ago, I wrote an article about the published research that suggests a supplement called policosanol could lower blood cholesterol to a significant degree in patients with hypercholesterolemia. However, recent studies have questioned the validity of this original research, all of which was done by the same Cuban-based research team, showing policosanol failed to produce any cholesterol-lowering effects whatsoever. As such, I have changed my strategy in regards to lowering blood cholesterol by combining gugulipid, which I have always recommended, in conjunction with artichoke leaf extract. This is a more evidence-based combination formula than gugulipid with policosanol, as I had previously suggested.

The Cholesterol-Lowering Game Plan

High cholesterol and/or triglyceride problems are very common in modern society and are known to increase the risk for heart attack, stroke and other cardiovascular diseases. Individuals should strive to achieve a fasting blood cholesterol level below 3.9 mmol/L (150 mg/d) and a fasting triglyceride level below 1.13 mmol/L (100 mg/d) to maximize their protection against heart attack and stroke. Eating less high-fat animal products and consuming foods high in cholesterol-lowering fiber (beans, peas, oats, fruits, vegetables, ground flaxseed, psyllium, etc.) is most beneficial in this regard.

In addition, two natural agents have proven cholesterol- and triglyceride-lowering effects that can complement a diet and lifestyle plan aimed at lowering these two cardiovascular risk factors. These two natural agents are gugulipid and artichoke leaf. When taken at the right dosage and standardized grade, these supplements work synergistically to lower cholesterol and/or triglyceride in people with elevated blood levels.

Gugulipid

Gugulipid has been used for many years to lower cholesterol and triglycerides in India, where it has received prescription drug status due to its high level of efficacy, as determined in human clinical trials. Remarkably, gugulipid is a very safe agent relative to most cholesterol-lowering drugs used in modern medicine (especially when compared to the commonly used statin drugs, which inhibit the HMG-CoA reductase enzyme in the liver and can lead to liver damage). Gugulipid shows a similar therapeutic effect to many cholesterol-lowering drugs without any apparent risk of liver damage.

Gum guggul or gugulipid is derived from the mukul myrrh tree, which is native to India. Upon injury, the tree exudes a yellowish gum resin known as gum guggul, gugulipid or guggulu. The extract isolates ketonic steroid compounds known as guggulsterones have been shown to be the active constituents accounting for its cholesterol- and triglyceride-lowering effects.

Gugulipid was granted approval in India for marketing as a lipid-lowering drug in June 1986. Studies show it lowers total cholesterol and LDL cholesterol while elevating HDL cholesterol (the

good cholesterol). It appears guggulsterones increase the uptake of LDL cholesterol from the blood by the liver. Studies in humans demonstrate that guggulsterone can produce a cholesterol reduction of 14-27 percent within four to 12 weeks, and a 22-30 percent drop in blood triglyceride levels in patients with high cholesterol and/or high triglycerides. A striking feature is its lack of toxicity. Unlike other cholesterol-lowering drugs, the administration of guggulipid has not revealed any significant side effects, liver damage or toxicity in human or animal studies to date.

Artichoke Leaf Extract

Artichoke leaf extract is known to increase bile acid secretion by the liver, which, in turn, increases LDL cholesterol-receptor production in liver cells, clearing more LDL cholesterol from the bloodstream. This results in a lowering of blood cholesterol. Cholesterol is the building block of bile acids. Hence, artichoke enhances the excretion of excess cholesterol (in the form of bile) from the body via the fecal route. It is thought that cynarin, a compound in artichoke called luteolin may play a role in reducing cholesterol. There is also evidence that artichoke leaf extract inhibits cholesterol synthesis in the liver to some degree, which also helps to lower blood cholesterol levels.

In a double-blind, placebo-controlled study involving 143 people with high cholesterol, artichoke leaf extract reduced total cholesterol by 18.5 percent as compared to 8.6 percent in the placebo group. LDL cholesterol dropped by 23 percent vs. 6 percent, and LDL-HDL ratios declined by 20 percent vs. 7 percent. Like guggulipid, artichoke leaf extract is not associated with any significant side effects or toxicity.

Dosage and Standardized Grades

To be effective, guggulipid must be standardized to yield 50-75 mg of guggulsterones per day (example 1,000 mg dose, standardized to 2.5 percent guggulsterone content, taken two to three times per day). Artichoke leaf extract requires a minimum of 400 mg (standardized to 13-18 percent caffeoylquinic acids), taken two to three times per day. Look for products that contain standardized grades of both guggulipid and artichoke leaf and that provide the ideal dosage for cholesterol and triglyceride lowering. The synergistic effect of guggulipid and artichoke leaf extract provides a natural and safe means to help lower cholesterol. This combination can even be taken safely in conjunction with other cholesterol- and triglyceride-lowering medications, if necessary.

Resources

1. Murray MT. *The Healing Power of Herbs 2nd Edition*. Prima Publishing, 1995.
2. Satyavati GV. A promising hypolipidaemic agent from gum guggul (*Commiphora wightii*). *Econ Med Plant Res*, 1991;5:47-82.
3. Nityand S, Kapoor NK. Hypocholesterolemic effect of *Commiphora mukul* resin. *Indian J Exp Biol*, 1971;9:376-7.
4. Kuppurajan K, et al. Effect of guggulu on serum lipids in obese hypercholesterolemic and hyperlipidemic cases. *J Assoc Physicians India*, 1978;26:367-71.
5. Malhotra SC, et al. Long term clinical studies on the hypolipidaemic effect of *Commiphora mukul* (guggulu) and clofibrate. *Indian J Med Res*, 1977;65:390-5.
6. Verna SK, Bordia A. Effect of *Commiphora mukul* (gum guggulu) in patients of hyperlipidemia with special reference to HDL-cholesterol. *Indian J Med Res*, 1988;87:356-60.
7. Agarwal RC, et al. Clinical trial of guggulipid a new hypolipidemic agent of plant origin in primary hyperlipidemia. *Indian J Med Res*, 1986;84:626-34.
8. Nityanand S, et al. Clinical trials with guggulipid, a new hypolipidaemic agent. *J Assoc Physicians India*, 1989;37:321-8.
9. Singh V, et al. Stimulation of low density lipoprotein receptor activity in liver membrane of guggulsterone treated rats. *Pharmacol Res*, 1990;22:37-44.

10. Sharma JN, Sharma JN. Comparison of the anti-inflammatory activity of *Commiphora mukul* (an indigenous drug) with those of phenylbutazone and ibuprofen in experimental arthritis induced by mycobacterial adjuvant. *Arzneimittel-Forsch*, 1977;27:1455-7.
11. Dietary Supplement Information Bureau. www.content.intramedicine.com: Guggul.
12. Natural Health Products Encyclopedia. www.consumerslab.com: Guggul.
13. Healthnotes, Inc. www.healthnotes.com. Guggul.
14. Satyavati GV. Gum guggul (*Commiphora mukul*) - The success of an ancient insight leading to a modern discovery. *Indian J Med*, 1988;87:327-35.
15. Singh RB, et al. Hypolipidemic and antioxidant effects of *Commiphora mukul* as an adjunct to dietary therapy in patients with hypercholesterolemia. *Cardiovasc Drugs Ther*, 1994;8:659-64.
16. Singh K, et al. Guggulsterone, a potent hypolipidaemic, prevents oxidation of low density lipoprotein. *Phytother Res*, 1997;11:291-4.
17. Mester L, et al. Inhibition of platelet aggregation by guggulu steroids. *Planta Med*, 1979;37:367-9.
18. Satyavati GV et al. Experimental studies on the hypocholesterolemic effect of *Commiphora mukul*. *Indian J Med Res*, 1969;57(10):1950-62.
19. Nityanand S et al. Clinical trials with gugulipid. A new hypolipidaemic agent. *J Assoc Physicians India*, 1989;37(5):323-8.
20. Satyavati GV et al. Guggulipid: A promising Hypolipidemic agent from gum guggul (*Commiphora Wightii*). *Econ Med Plant Res*, 1991;5:48-82.
21. Englisch W, et al. Efficacy of artichoke dry extract in patients with hyperlipoproteinemia. *Arzneimittel-Forsch*, 2000;50:260-5.
22. Kraft K. Artichoke leaf extract: recent findings reflecting effects on lipid metabolism, liver and gastrointestinal tracts. *Phytomedicine*, 1997;4:369-78.
23. Englisch W, et al. Efficacy of artichoke dry extract in patients with hyperlipoproteinemia. *Arzneimittel-Forsch*, 2000;50:260-5.
24. Petrowicz O, et al. Effects of artichoke leaf extract (ALE) on lipoprotein metabolism in vitro and in vivo [abstract]. *Atherosclerosis*, 1997;129:147.

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