

# NATURAL SUPPLEMENTS PROVEN TO LOWER CHOLESTEROL AND TRIGLYCERIDES

JAMES MESCHINO, DC, MS, ND

## Introduction

A few years ago I wrote an article that highlighted the published research showing that the natural health product known as policosanol, could lower blood cholesterol to a significant degree in patients with hypercholesterolemia. However, more recent studies have questioned the validity of this original research (all of which was done by the same Cuban-based research team), showing that 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. I am suggesting to you that this is a more evidence-based combination formula than gugulipid with policosanol, as I had previously suggested.

## The Natural Cholesterol-Lowering Game Plan

High cholesterol and/or triglyceride problems are very common in modern society and are known to increase 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/dL) to maximize their protection against heart attack and stroke. Eating less high fat animal products and consuming foods high in cholesterol-lowering fiber is most beneficial in this regard (beans, peas, oats, fruits, vegetables, ground flaxseed, psyllium). In addition, there are two natural agents that have proven cholesterol and triglyceride lowering effects that can be used to complement a diet and lifestyle plan aimed at lowering these two cardiovascular risk factors. These two natural agents include Gugulipid and Artichoke Leaf. When taken at the right dosage and standardized grade these two supplements work synergistically to lower cholesterol and/or triglyceride to a significant degree, in persons with elevated blood levels

## Gugulipid

Gugulipid is a natural health product that has been shown to reduce elevated blood cholesterol and triglyceride levels, in the prevention of cardiovascular disease. It has been used for many years for this purpose in India, where it is has received prescription drug status, due to its high level of efficacy, as determined in human clinical trials. Remarkably, Gugulipid is a very safe drug 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 that have been shown to be the active constituent that accounts 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 that it lowers total cholesterol, LDL –cholesterol, while elevating HDL–cholesterol (the good cholesterol) levels. (Agarwal RC, 1986 and Nityanand S, 1989). It appears that 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%, in 4-12 weeks, and a 22-30% 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 Gugulipid 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 cell, clearing more LDL cholesterol from the blood stream. 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 of 143 people with high cholesterol, artichoke leaf extract reduced total cholesterol by 18.5% as compared to 8.6% in the placebo group; LDL cholesterol dropped by 23% vs. 6%; and LDL-to-HDL ratios declined by 20% vs. 7%. (Englisch W et al. 2000). Like Gugulipid, Artichoke leaf extract is not associated with any significant side effects or toxicity.

### **Dosage and Standardize Grades:**

To be effective, Gugulipid must be standardized to yield 50-75 mg of guggulsterones per day (example 1,000 mg dose, standardized to 2.5% guggulsterone content, taken two to three times per day). Artichoke leaf extract requires a minimum of 400 mg (standardized to 13-18% caffeoylquinic acids), taken two to three times per day. Look for products that contain standardized grades of both Gugulipid and Artichoke Leaf, and provide the ideal dosage for cholesterol and triglyceride lowering. The synergistic effect of Gugulipid and Artichoke Leaf Extract provide 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.

*For more information on this or other related topics, visit Dr. Meschino's website at: <http://www.renaissance.com>*

### **Gugulipid References:**

1. Murray MT, The Healing Power of Herbs (2<sup>nd</sup> edition), Prima Publishing, 1995.
2. Satyavati GV, A Promising Hypolipidaemic Agent from Gum Guggul (Commiphora Wightii), Econ Med Plant Res 5, 1991, 47-82.
3. Nityand S and Kapoor NK, Hypocholesterolemic Effect of Commiphora Mukul Resin, Indian J Exp Biol 9, 1971, 376-377.

4. Kuppurajan K, et.al., Effect of Gugglu on Serum Lipids in Obese Hypercholesterolemic and Hyperlipidemic Cases, *J Assoc Physicians India* 26, 1978, 367-371.
5. Malhotra SC, Ahuja MMS, and Sundaram KR, Long Term Clinical Studies on the Hypolipidaemic Effect of Commiphora Mukul (Guggulu) and Clofibrate, *Indian J Med Res* 65, 1977, 390-395.
6. Verna SK and Bordia A, Effect of Commiphora Mukul (Gum Guggulu) in Patients of Hyperlipidemia with Special Reference to HDL –cholesterol, *Indian J Med Res* 87, 1988, 356-360.
7. Agarwal RC, et.al., Clinical Trial of Gugulipid a New Hypolipidemicagent of Plant Origin in Primary Hyperlipidemia, *Indian J Med Res* 84, 1986, 626-634.
8. Nityanand S, Srivastava JS, and Asthana OP. Clinical Trials with Gugulipid, a New Hypolipidaemic Agent, *J Assoc Physicians India* 37, 1989, 321-328.
9. Singh V, et.al., Stimulation of Low Density Lipoprotein Receptor Activity in Liver Membrane of Guggulsterone Treated Rats, *Pharmacol Res* 22, 1990, 37-44.
10. Sharma JN and Sharma JN, Comparison of the Anti-inflammatory Activity of Commiphora Mukul (an indigenous drug) with those Pphenylbutazone and Ibuprofen in Experimental Arthritis Induced by Mycobacterial Adjuvant, *Arzneimittel-Forsch* 27, 1977, 1455-1457.
11. Dietary Supplement Information Bureau. [www.content.intramedicine.com](http://www.content.intramedicine.com): Guggul.
12. Natural Health Products Encyclopedia. [www.consumerslab.com](http://www.consumerslab.com): Guggul.
13. Healthnotes, Inc.200.[www.healthnotes.com](http://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, Niaz MA, Ghosh S. 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, Chander R, Kapoor NK. Guggulsterone, a potent hypolipidaemic, prevents oxidation of low density lipoprotein. *Phytother Res* 1997;11:291-4
17. Mester L, Mester M, Nityanand S. 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

### Artichoke Leaf References:

1. Englisch W, Beckers C, Unkauf M, et al. Efficacy of artichoke dry extract in patients with hyperlipoproteinemia. *Arzneimittelforschung*. 2000;50:260–265.
2. Kraft K. Artichoke leaf extract—recent findings reflecting effects on lipid metabolism, liver and gastrointestinal tracts. *Phytomedicine*. 1997;4:369–378.
3. Englisch W, Beckers C, Unkauf M, et al. Efficacy of artichoke dry extract in patients with hyperlipoproteinemia. *Arzneimittelforschung*. 2000;50:260–265.
4. Petrowicz O, Gebhardt R, Donner M, et al. Effects of artichoke leaf extract (ALE) on lipoprotein metabolism in vitro and in vivo [abstract]. *Atherosclerosis*. 1997;129:147.
5. Kraft K. Artichoke leaf extract—recent findings reflecting effects on lipid metabolism, liver and gastrointestinal tracts. *Phytomedicine*. 1997;4:369–378.