



Cholesterol

Cholesterol, a sticky white substance, classified as a fat, is essential to life as it is needed for strong cell walls, as a precursor for hormone production and as a coating around nerves. But high levels of certain forms of cholesterol like LDL, VLDL and triglycerides associated with various predisposing conditions including sedentary lifestyle, stress, obesity, etc have emerged as one of the major risk factors contributing to coronary heart disease by creating sticky deposits called plaque along intima of the artery walls. This plaque can eventually obstruct or even block the flow of blood to the brain, heart, and other organs. New research suggests that prevention and natural treatment offer the healthiest, most lasting and least costly route to recovery. On the basis of our extensive modern and traditional literature search on this subject we are proud to present this range of Herbs from India that can help reduce cholesterol levels, tone the entire circulatory system, providing nutrition, strength and vitality thus reduce the risk of heart disease and atherosclerosis, if consumed as per directions.

Commiphora mukul

Guggul (Commiphora mukul) means “**wards off disease**”. Guggulipid, a traditional Ayurvedic medication used to treat high cholesterol, is widely used in India and was first recommended as a treatment for hardening of the arteries in 600 BC. Its description can also be found in the classical treatise on Ayurvedic medicine, Sushrita Samhita, for a variety of conditions, including arthritis and obesity. One of its primary indications was a condition known as medoroga. This ancient diagnosis is similar to the modern description of atherosclerosis.

The double-blind placebo-controlled study of guggul enrolled 61 individuals and followed them for 24 weeks. The results after 24 weeks of treatment showed that the treated group experienced an 11.7% decrease in total cholesterol, along with a 12.5% decrease in LDL (“bad” cholesterol), a 12% decrease in triglycerides, and an 11.1% decrease in the total cholesterol/HDL (“good” cholesterol) ratio. The combined effect of diet and guggulipid at 36 weeks was as great as the reported lipid-lowering effect of modern drugs. Another double blind study of 228 individuals given either guggul or the standard drug clofibrate found approximately equal efficacy between the two treatments for lowering cholesterol levels.

Ficus bengalensis

‘Banyan tree’ botanically known as Ficus bengalensis occurs throughout the forest tracts of India. Various parts of this plant are considered medicinal. The bark of this therapeutically valuable tree is attributed with tonic, astringent, cooling and diuretic properties in Ayurveda.

In preclinical studies the water extract of the bark of *F. bengalensis* has shown an appreciable hypocholesterolemic effect with its ability to bring down the level of serum cholesterol. In one of the study of five weeks duration involving 3 groups of rabbits, 5 in each group. Two groups served as controls and the treatment group animals received water extract of the bark (50mg/kg bw/day) in addition to cholesterol. At the end of the 5th week, water extract not only prevented the elevation of serum cholesterol in the treated animals (Group 3) but also brought down level to as compared to untreated animals There was also improvement in other parameters of lipid profile namely HDL & LDL+VLDL cholesterol and triacylglycerol.

Myristica fragrans

Jaiphal (*Myristica fragrans*) a tree yielding aromatic fruits is very well known in the Indian subcontinent for various medical properties. Ancient ayurvedic literature has reported its usefulness as tonic for the heart and in brain and sexual and general debility.

Myristica seed extracts administration to hypercholesterolemic rabbits reduced serum cholesterol and LDL cholesterol by 69.1 percent and 76.3 percent, respectively and also lowered cholesterol/phospholipid ratio by 31.2 percent and elevated the decreased HDL-ratio significantly. It also prevented the accumulation of cholesterol, phospholipids and triglycerides in liver, heart and aorta and dissolved atheromatous plaques of aorta by 70.9-76.5 percent. Fecal excretion of cholesterol and phospholipids were significantly increased in seed extract fed rabbits.

Rabbits administered with *Myristica* seed extracts showed significant reduction in the total cholesterol in heart and liver and bad lipoprotein lipid levels without any alteration in High density lipoprotein (HDL) cholesterol levels

Semecarpus anacardium

Semecarpus anacardium is a moderate-sized deciduous tree, found in the outer Himalayas. The fruit of *Semecarpus anacardium* is acrid, hot and anthelmintic. It is considered beneficial in ascites, tumours and warts, acute rheumatism, asthma, neuralgia, epilepsy and psoriasis. The fruit kernel of *Semecarpus anacardium* is well reputed as a good cardiac tonic and respiratory stimulant.

A series of bioefficacy studies have been reported to prove Cholesterol lowering effect of *Semecarpus anacardium*. In one of the studies, administration of *Semecarpus anacardium* nut shell extract to cholesterol fed rabbits resulted in a significant reduction in serum cholesterol (-73.3percent) and serum LDL-Chol. (-80 percent). The extract feeding also prevented the accumulation of cholesterol/triglycerides in liver, heart, muscle and aorta and caused a regression of plaques. These results indicate that *Semecarpus anacardium* is hypocholesterolemic in action and prevents cholesterol induced atheroma.

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