

## Over-The-Counter Treatment of High Cholesterol

There are a number of safe and effective nonprescription therapies available to patients to help manage cholesterol and the specific lipid components:

- Low Density Lipoproteins-LDL-promote the formation of plaques that clog arteries
- High Density Lipoproteins-HDL-protect against heart attacks
- Triglycerides-high levels can be associated with heart disease

*The following alternatives have a proven benefit:*

**Plant sterols** are substances found in certain plants that inhibit the absorption of cholesterol from the small intestine. They can be found in a number of forms:

- Benecol® spread (sitostanol) (0.5gm plant stanol ester per serving)
  - Dosage: 4 tablespoonsful on food daily can reduce LDL up to 10%
- Minute Maid® Heart Wise orange juice (1gm plant sterol per serving)
  - Dosage: 8oz glass twice daily
- Benecol Smart Chews chocolate flavored (3.4gm plant stanol ester per serving)
  - Chew 4 softchews daily
- Cholest Off® Plus (900mg plant sterol/stanol per serving)
  - Dosage: 2 capsules twice daily.

**If you are taking the prescription drug ezetimibe you will not obtain additional LDL lowering benefits from plant sterols.**

**Soluble fiber** binds cholesterol rich bile so that the body excretes it. It can be found in many foods such as kidney beans, barley, prunes, pinto beans, black beans, lentils and oatmeal. Soluble fiber can also be found in nonprescription products like Psyllium (Metamucil®) and Wheat dextrin (Benefiber®). 5-10 grams of soluble fiber can lower LDL 5%.

**Red yeast rice** is a nutritional supplement with several ingredients that block the body's ability to make cholesterol. The amount of ingredients can be different depending on the brand. Lovastatin is a key ingredient that is also available separately as a prescription cholesterol medication. Because of lovastatin, red rice yeast may cause side effects like prescription cholesterol medications such as muscle pain and liver problems so monitoring of liver function by blood testing is recommended. It should not be taken by women who are pregnant, trying to become pregnant, or breastfeeding. It may also interact with other medications, all of which means it's best to talk to your doctor first before taking red yeast rice.

**Fish oil supplements** which contain omega-3 fatty acids are noted for their triglyceride lowering effect. Eating a diet of salmon, albacore tuna, sardines, and herring can provide this benefit. Fish oil capsules can also be a good source of the Omega-3 fatty acids EPA (Eicosapentanoic Acid) and DHA (Docosahexanoic Acid) which are the active agents that lower triglycerides. 2-4 grams of EPA + DHA per day can lower triglycerides 20-50%. A usual 1000mg fish oil capsule contains 180mg of EPA and 120mg of DHA (can vary depending on brand). Doses of 6-10 capsules per day are necessary to lower triglycerides. It is recommended to gradually increase the dose starting with 1 capsule daily. Freezing capsules can help reduce side effects. There are potential concerns that fish oils can effect bleeding time in patients being treated with a blood thinning medication. Consult your doctor before starting.

References: The Annals of Pharmacotherapy 2006; 40: 1984-1992, Plant Fiber in Foods 2<sup>nd</sup> Ed. HCF Nutrition Research foundation Inc. 1990, Mayoclinic.com