

Triplichol

#353

Dose Form: Packets containing Licaps, softgels, and tablets.

Supplement Facts		
Serving Size 2 Packets Servings Per Container 30		
	Amount Per	% Daily
2 packets contain	Serving	Value
Total Calories	13.14	
Calories from Fat	13.14	
Total Fat	1.46 g	2.24%*
Time Release Niacin (Niamax™)	1 g	5000%
Sterol Esters Corowise®	1.3 g	**
Pantethine	900 mg	**
EPA	840 mg	**
DHA	600 mg	**

* % Daily Values are based on 2,000 calorie diet.
** % Daily Value not established

Sources:

Fish Oil: From the cold deep waters off the Coast of Peru. The fish used consist of Anchovy (95-99%), Sardine (1-5%), Mackerel, and other occasional species.

Plant Sterols: Derived from soy beans. Sterols included are: Cholesterol, Brassicasterol, Campesterol, Campestanol, Stigmasterol, B-Sitosterol, Sitostanol, delta 5-avenasterol, delta 7-stigmasterol, delta 7-avenasterol.

Niamax: Derived from crude virgin oil combined with a unique wax matrix.

Pantethine: Derivative of pantothenic acid (Vitamin B5).

Product Rationale:

Dyslipidemia is characterized by the abnormal concentrations of lipids or lipoproteins in the blood. Triplichol has included studied natural lipid modifying agents in clinical doses in convenient packets for easy patient compliance.

Ingredient Information

Pantethine:

- Pantethine is an intermediate in the transformation of pantothenic acid to Co-Enzyme A. Co-Enzyme A helps in metabolizing amino acids, carbohydrates, and lipids (3).
- Pantethine supplementation increases cysteamine in the bloodstream. It is the increase in cysteamine that is believed to be primarily responsible for lowering cholesterol (4).
- Pantethine is used in the liver where it slows production of cholesterol and supports lipid metabolism, resulting in a reduction of LDL and triglycerides and an

increase in HDL and apolipoprotein A1 levels (3,5).

- A double-blind, cross-over study evaluating the effects of pantethine on CVD was carried out. 48 patients (36 men and 12 women) were given either placebo, 600mg or 900mg of pantethine. The three doses were administered for six weeks, after the six weeks the patients were crossed over and given a different dose. There was a significant decrease in total cholesterol, LDL, and triglycerides with 600 mg of pantethine and an even more significant decrease in the 900mg dose. There was a significant increase in HDL₂ in the 900mg dose. Apolipoprotein A1 levels were increased with both doses of pantethine, while apolipoprotein B was decreased (4).

Niacin:

- Niacin lowers LDL and triglyceride levels and raises HDL (6).
- Niacin decreases production of the LDL precursor, VLDL. Niacin reduces mobilization of free fatty acids from adipose tissue resulting in a decrease in triglyceride levels. The decreased triglyceride levels reduce liver synthesis and triglyceride content of the VLDL. Niacin also inhibits apolipoprotein B which is needed for assembly of VLDL particles (6).
- Niacin reduces the amount of apolipoprotein A1 taken from HDL during liver uptake, maintaining the integrity of HDL (6).
- Study investigating the effect of sustained release nicotinic acid on patients with coronary heart disease found that niacin (1500-2000mg) was able to lower total cholesterol, triglycerides, and LDL levels comparable to that seen with using Lovastatin (7).

Fish Oil:

- Long-chain omega 3 fatty acids from fish including EPA and DHA have been shown to have consistent triglyceride lowering effects (1).
- The American Heart Association recommends patients who need to lower triglycerides consume 2 to 4 grams (3-6 capsules) EPA+DHA per day provided as capsules under a physician's care (2).
- A meta-analysis of 65 reports showed that fish oil consumption (average dose 4 g/day EPA+DHA) had an average reduction of 25% on triglycerides in normolipidemic and hypertriglycerolemic people (8).

Plant Sterols:

- Plant sterols are structurally similar to cholesterol (10). Sterols compete with

cholesterol and inhibit the absorption of dietary cholesterol and the reabsorption of endogenous cholesterol from the GI tract (11).

- Plant sterols lower LDL and total cholesterol (9,10,11)
- The FDA has recognized that plant sterol esters may reduce the risk of CHD by lowering cholesterol levels and has authorized the following claim: Foods containing at least 0.65 grams per serving of plant sterol esters, eaten twice a day with meals for a daily total intake of at least 1.3 grams, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease (9).
- A meta-analysis of 41 trials showed that an intake of 2 g/day of sterols reduced LDL by 10% (12).

Dose

2 packets per day, taking one in the AM and one in the PM.

Contraindications, Adverse or Other reactions:

Allergy or sensitivities to fish may occur. Patients using coumadin should use caution. Flushing occurs in 3-12% of subject and is dose dependent. Smaller initial doses and avoidance of hot drinks after niacin ingestion can help reduce this effect. Liver enzymes should be checked and monitored, especially in patients using 1500 mg or more per day. Certain diabetic and metabolic syndrome patients may see a change in fasting blood sugar with the use of niacin.

References:

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4. Keenan J, Pins J, First S. Pantethine: a review of it's CVD-related effects. Daiichi Fine Chemicals, Inc.
5. PDR health. Home page. Pantethine. <http://www.pdrhealth.com>
6. Lonza. Sustained-Release Niacin Tablets Dietary Supplements. 2004.
7. Aronov D, Keenan J, Buobnova M, Perova N, Olfieriev F, Golubev M. Effect of Sustained Release Nicotinic Acid on Post-Prandial Lipids in Patients With Coronary Artery Disease. 2000.

8. Harris WS. N-3 fatty acids and serum lipoproteins: human studies. *Am J Clin Nutr*. 1997; 65(5):1645S-1654S.
9. Food and Drug Administration. Home page. FDA Authorizes new coronary heart disease health claim for plant sterol and plant stanol esters. <http://www.fda.gov>
10. Yang C, Yu L, Li W, Xu F, Cohen J, Hobbs H. Disruption of cholesterol homeostasis by plant sterols. *J Clin Invest*. 2004; 114:813-822.
11. PDR health. Home page. Phytosterols. <http://www.pdrhealth.com>
12. Katan M, et al. Efficacy and Safety of Plant Stanols and Sterols in the Management of Blood Cholesterol Levels. *Mayo Clin Proc*. 2003; 78:965-978.

Disclaimer: These statements have not been approved by the FDA, they are not meant to be used to treat, cure, diagnose or in anyway recommend any product for any disease or condition.