New from Biotics Research Corporation

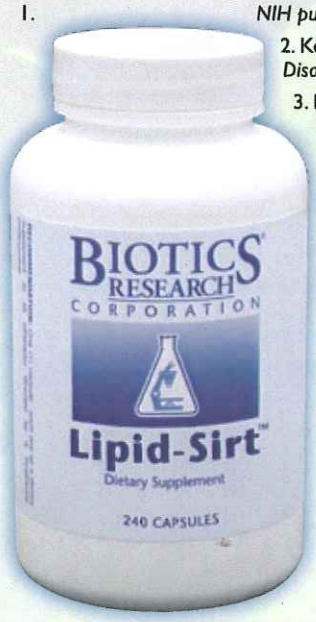
Lipid-Sirt™

Lower Cholesterol, Naturally*

Dr. Mark Houston, Associate Clinical Professor of Medicine at Vanderbilt Medical School and Director of Hypertension Institute and Vascular Biology in Nashville, in conjunction with Biotics Research Corporation, have developed Lipid-Sirt™, a specialized formula designed to lower cholesterol, naturally! *

High cholesterol, exists when the amount of cholesterol present in blood is at levels that are deemed unhealthy. Safe levels of cholesterol depends on individual risk factors such as antioxidant status, exercise, stress, tobacco use, genetics and other cardiovascular risk factors such as blood pressure or established coronary heart disease. Although there is some controversy as to what the ideal level of total cholesterol is, most agree that a total cholesterol level above 240 is bad, and a level below 200 is desirable.

Management of high cholesterol should begin with a combination of exercise and a dietary program that reduces saturated fat intake, and to the greatest extent possible, eliminates trans-fats, hydrogenated fats and refined carbohydrates. Additionally, specific nutritional supplements have been found to have a positive impact on cholesterol levels. [1,2,3,4]



Lipid-Sirt™ supplies specific nutrients which have been shown to modify the production of cholesterol in the liver by reacting with hepatic enzymes, increase cholesterol excretion via the bile, inhibit cholesterol uptake from the intestine, and support increased levels of HDL.

Pantethine, a natural compound, is a stable disulfide form of pantetheine, a precursor of coenzyme A, and is the coenzymatic form of vitamin B5 (pantothenic acid) and cysteamine. Pantethine may increase levels of coenzyme A, which can increase the beta oxidation of fatty acids directly, while its metabolite cysteamine may decrease the hepatic synthesis of cholesterol by inhibiting HMG-Co reductase. Pantethine has been shown to significantly increase HDL levels in as little as six weeks.[5,6,7]

*** Phytosterols** (plant sterol esters) are structurally similar to cholesterol and have been shown to reduce the intestinal absorption of cholesterol by 30 to 40%. Clinical studies have shown that phytosterols can lower total cholesterol by an average of 6 to 10% and LDL cholesterol by 8 to 15%. Phytosterols are a safe, natural, effective intervention for the reduction of cholesterol. Foods or dietary supplements containing at least 400 mg per serving of free phytosterols taken twice a day with meals, for a daily total intake of at least 800 mg, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease.[8,9]

1. *NIH publication No 01-3290*

2. Kessinger, J. *Diagnosis and Management of Internal Disorder, module 4 session 9, 2004*

3. Blum CB, Levy. Current therapy for hypercholesterolemia. *JAMA, June 23/30. 1989- vol 261, No.24; 3582-3587*

4. *Alternative Medicine Review, volume 3, Number 5, 379-381*

5. Pinns JJ, First S, *et al.* Pantethine beneficially affects apolipoprotein A-1, apolipoprotein B, low-density lipoprotein particle size but not high sensitivity C-reactive protein in a dyslipidemic population. *Circulation, 2004; 110(17 supp 3): III-778.*

6. Binaghi P, *et al.* Evaluation of the cholesterol–lowering effectiveness of pantethine in women in perimenopausal age. *Minerva Med. 1990 Jun; 81(6):475-9*

7. Gaddi A, *et al.* Controlled evaluation of pantethine, a natural hypolipidemic compound, in patients with different forms of hyperlipoproteinemia. *Atherosclerosis. 1984 Jan; 50(1): 73-78*

8. Micallef MA and Garg ML. The lipid-lowering effects of phytosterols in (n-3) polyunsaturated fatty acids are synergistic and complementary in hyperlipidemic men and women. *J Nutrition 2008;138; 1086-1090*

9. International food information council. *Functional foods fact sheet: plant stanols and sterols. July 2007*

*To place your order for **Lipid-Sirt™** or for additional information contact us:*

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BIOTICS RESEARCH CORPORATION

"The Best of Science and Nature"

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Green Tea extract – Epigallocatechin gallate (EGCG) is the most abundant catechin (44-55%) supplied by green tea, and possesses the most potent antioxidative activity of the green tea polyphenols. The potential protective health effects from catechins have been attributed to antioxidant, antithrombogenic and anti-inflammatory properties.

EGCG increases endothelial nitric oxide activity. Nitric oxide release from the endothelium results in vasodilation. Impaired vasodilation is associated with the progression of CVD. Widlansky examined the effects of EGCG on endothelial function in patients with coronary artery disease, and found that EGCG improved endothelial function in patients with endothelial dysfunction. EGCG is also an inhibitor of xanthine oxidase, an enzyme that produces the purine uric acid. Xanthine oxidase inhibition has been shown to improve endothelial vasodilation in hypercholestrolemic individuals.

In animal models, Green tea catechins have been shown to decrease the solubility of cholesterol in micelles, thereby reducing the intestinal absorption of cholesterol.[14, 15, 16, 17, 18]

14. Chow S, *et al.* Phase I Pharmacokinetic study of tea polyphenols following single dose administration of epigallocatechin gallage and polyphenon E. *Cancer Epidemiology, Biomarkers and Prevention vol 10, 53-54, Jan 2001*

15. Lorenz M, *et al.* A constituent of green tea, epigallocatechin-3-gallatte, activates endothelial nitric oxide synthesis by a phosphatidylinositol-3-OH kinase, cAMP dependant protein kinase and Akt-dependent pathway and leads to endothelial-dependant vasorelaxation. *J Biological Chemistry 2004, vol 279, No. 7, 6190-6195*

16. Widlansky ME, *et al.* Acute EGCG supplementation reverses endothelial dysfunction in patients with coronary artery disease. *J Am College of Nutrition, vol. 26, no. 2, 95-102, 2007*

17. Yang TT and Koo MW. Chinese green tea lowers cholesterol level through an increase in fecal lipid excretion. *Life Sci. 2000; 66(5): 411-23*

18. Unno T, *et al.* Effect of tea catechins on postprandial plasma lipid responses in human subjects. *British J Nutrition 2005 Apr; 93(4): 543-7*

Supplement Facts

Serving Size: 4 Capsules — **Servings Per Container: 60**

	Amount Per Serving	%Daily Value
Pantethine	450 mg	*
Plant Sterols (from soybean)	400 mg	*
Green Tea Extract (50% EGCG) (leaf)	300 mg	*
Delta-tocotrienol (from annatto) (seed)	37.5 mg	*
Phytolens® ** (lens esculenta extract) (husk)	2.5 mg	*

***Daily Value not established**

Other Ingredients: Capsule shell (gelatin, water and glycerin) and magnesium stearate (vegetable source).

Contains ingredients derived from soybean.

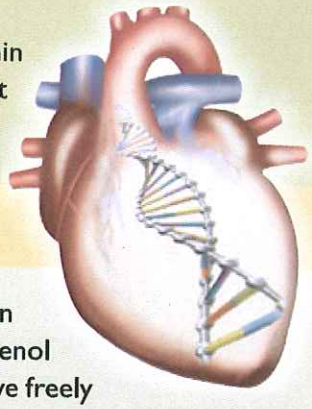
** **Phytolens®** is a registered trademark of Biotics Research Corporation. U.S. Patent No. 5,762,936 Biotics Research Corporation.

RECOMMENDATION: Four (4) capsules two (2) times each day as a dietary supplement or as otherwise recommended by your healthcare professional.

Caution: Not recommended for pregnant or lactating women.

KEEP OUT OF REACH OF CHILDREN
Store in a cool, dry area.
Sealed with an imprinted safety seal for your protection.

NDC# 55146-02935 Rev. 6/08



Delta tocotrienol – Natural vitamin E includes two groups of similar fat soluble compounds - tocopherols and tocotrienols, with each group consisting of four separate isomers: alpha, beta, delta and gamma. While tocopherols have a side tail that allows the molecule to anchor itself in the membrane of cells, the tocotrienol side chain allow the molecule to move freely in and through the membrane allowing it to hunt down free radicals across a much larger area.

Tocotrienols have been shown to inhibit HMG-CoA reductase, the first rate limiting enzyme in the biosynthetic pathway for cholesterol synthesis, with delta and gamma tocotrienol possessing the greatest ability to inhibit cholesterol synthesis. Unlike other HMG-CoA reductase inhibitors, tocotrienols do not inhibit the synthesis of coenzyme Q10.[10, 11, 12, 13]

10. Sen CK, Khanna S and Roy S. Tocotrienols: Vitamin E Beyond Tocopherols. *Life Sci. 2006 March 27; 78(18): 2088-2098.*

11. Chin SF, *et al.* reduction of DNA damage in older healthy adults by Tri E Tocotrienol supplementation. *Nutrition. 2008 Jan; 24(1): 1-10*

12. Qureshi AA, *et al.* The structure of an inhibitor of cholesterol biosynthesis isolated from barley. *J Bio Chem 1986, vol.261, No. 23, Aug15, pp 10544-10550*

13. Qureshi AA, *et al.* Dose-dependent suppression of serum cholesterol by tocotrienol-rich fraction (TRF 25) of rice bran in hypercholesterolemic humans. *Atherosclerosis, 2002 Mar; 161(1): 199-207*

Phytolens® is a patented extract from the seed coat of lentils containing a rich mixture of condensed tannins (procyanidins). Polymeric Procyanidins have been shown to increase endothelial nitric oxide synthase to a greater extent than monomers in aortic endothelial cells. **Phytolens®** possesses significant antioxidant activity, and has been shown to positively impact inflammatory mediators *in vitro*.[19]

19. Phytolens, United States Patent 5,762,936. Antioxidant derived from lentil and its preparation and uses.

Product #: 2935 • Contains: 240 Capsules • NDC #: 55146-02935

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