

CholestePure Plus

*Advanced cholesterol and triglyceride support featuring phytosterol esters and Bergamonte™**



Supplements containing at least 0.5 g per serving of phytosterols eaten with meals or snacks for a daily total intake of 2 g as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease. One serving of CholestePure Plus supplies 0.5 g of phytosterols.

Scientific evidence establishes that phytosterols in the diet help to lower blood total and LDL cholesterol levels.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

CholestePure Plus

Phytosterols

Phytosterols are structural homologs of cholesterol that occur naturally in many plant foods, particularly soy beans, grains, nuts, seeds, fruits and vegetable oils. Their mechanism of action involves competition with cholesterol for uptake across the intestinal epithelium.¹ The efficacy of phytosterols in maintaining healthy cholesterol levels has been documented by over 30 years of research.²

Like phytosterols, flavonoids have been thoroughly studied in cardiovascular contexts and are the active constituents of many cardioprotective botanicals.³ Citrus flavonoids have been the focus of many recent studies demonstrating significant efficacy in maintaining cardiovascular health.⁴ These unique compounds target enzymes, transcription factors and genes involved in lipid metabolism.^{5*}



Soybeans

Bergamonte™

Bergamot is a citrus fruit cultivated on the southern coast of Italy. This fruit contains two newly discovered derivatives of the flavonoids hesperidin and naringenin. These compounds are naturally conjugated to a moiety known as hydroxymethylglutarate (HMG, Figure 1). In the liver, this unique molecule binds and modulates an enzyme known as HMG CoA reductase, which plays a central role in lipid biosynthesis.^{6,7} By specifically targeting this enzyme, bergamot flavonoids maintain healthy lipid balance.^{6-8*}

Bioactive Flavonoids of Bergamot

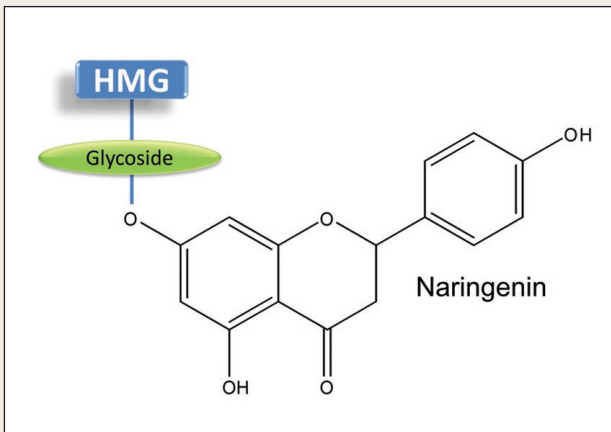


Figure 1. Structure of a bioactive flavonoid in bergamot. Naringenin occurs naturally as a glycoside attached to HMG. The HMG moiety binds and modulates HMG CoA reductase, an enzyme that directs cholesterol synthesis in the liver.*

Clinical Research

Meta-analyses of over 40 clinical trials suggest that **phytosterols** provide significant support for healthy lipid profiles. Well-established benefits of phytosterols on lipid balance stem primarily from competition with cholesterol for occupancy in micelles, particles that carry cholesterol across the intestinal epithelium into the systemic circulation (Figure 2).¹ Through this mechanism, phytosterols promote excretion of cholesterol in the form of bile acids. The soluble phytosterol esters in CholestePure Plus are easily incorporated into micelles.*

The FDA approved health claim states that “Supplements containing at least 0.5 g per serving of phytosterols eaten with meals or snacks for a daily total intake of 2 g as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease,” and that “Scientific evidence establishes that phytosterols in the diet help to lower blood total and LDL cholesterol levels.”

A serving of CholestePure Plus supplies 0.5 g of phytosterols in accordance with the FDA approved health claim.

Phytosterols Support Healthy Micelle Composition

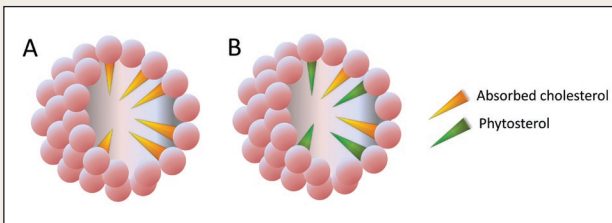


Figure 2. Cholesterol is absorbed from the intestine in the form of micelles. A. Typical micelle delivering cholesterol B. Micelle with phytosterols delivering fewer cholesterol molecules.

Healthy lipid balance depends on the equilibrium between lipid synthesis and excretion. While phytosterols promote excretion, certain flavonoids, such as those found in Bergamonte™, specifically target the process of cholesterol synthesis.^{6,7} In a study involving 192 volunteers, bergamot juice maintained healthy cholesterol and triglyceride levels in the normal range over a 30-day period.⁹ In a separate study of 238 subjects, Bergamonte™ supported healthy lipid, triglyceride and glucose profiles at dosages of 500 mg or 1,000 mg daily over a 30-day period.^{10*}



Bergamot

CholestePure Plus liquid-filled capsule

**Phytosterol esters and flavonoid-rich Bergamonte™ for healthy cholesterol, triglyceride, and glucose metabolism*

Phytosterol esters

- Backed by over 30 years of research
- Compete with cholesterol for absorption in the body
- Supported by approved FDA health claims:


Supplements containing at least 0.5 g per serving of phytosterols eaten with meals or snacks for a daily total intake of 2 g as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease. One serving of CholestePure Plus supplies 0.5 g of phytosterols.

Scientific evidence establishes that phytosterols in the diet help to lower blood total and LDL cholesterol levels.

Bergamonte™

- Provides unique citrus flavonoids that maintain healthy hepatic cholesterol metabolism.*
- In two clinical trials, Bergamonte™ maintained healthy cholesterol, triglyceride and plasma glucose levels in the normal range.*

**CholestePure Plus provides soluble phytosterol esters and clinically studied Bergamonte™ extract for powerful support for healthy lipid metabolism and overall cardiometabolic health*

four Caplique® Capsules contain  00

phytosterol complex 850 mg
providing:

total phytosterols 500 mg

Bergamonte™ Citrus Bergamia 500 mg

Risso Polyphenolic Extract (fruit)

(standardized to contain 25% flavonoids)

Contains soy

other ingredients: glycerin, water, vegetable capsule

2 Caplique® Capsules twice per day, in divided doses, with meals.

Bergamonte™ is the trademark of HP Ingredients.

Caplique® Capsule is a registered trademark used by Pure Encapsulations under license.

Each Caplique® Capsule is preserved with a nitrogen bubble, which may give the appearance of the capsule not being full. Contents may appear cloudy or thick and may settle or separate.
--

Quantity

Order Code

CholestePure Plus

120

CHP1

References

1. Mel'nikov SM, Seijen ten Hoorn JW, Eijkelenboom AP. Effect of phytosterols and phytosteranols on the solubilization of cholesterol by dietary mixed micelles: an in vitro study. *Chem Phys Lipids*. 2004 Feb;127(2):121-41.
2. Lau VW, Journoud M, Jones PJ. Plant sterols are efficacious in lowering plasma LDL and non-HDL cholesterol in hypercholesterolemic type 2 diabetic and nondiabetic persons. *Am J Clin Nutr*. 2005 Jun;81(6):1351-8.
3. Morand C, Dubray C, Milenkovic D, Lioger D, Martin JF, Scalbert A, Mazur A. Hesperidin contributes to the vascular protective effects of orange juice: a randomized crossover study in healthy volunteers. *Am J Clin Nutr*. 2011 Jan;93(1):73-80.
4. Jung UJ, Kim HJ, Lee JS, Lee MK, Kim HO, Park EJ, Kim HK, Jeong TS, Choi MS. Naringin supplementation lowers plasma lipids and enhances erythrocyte antioxidant enzyme activities in hypercholesterolemic subjects. *Clin Nutr*. 2003 Dec;22(6):561-8.
5. Lee EJ, Kim DI, Kim WJ, Moon SK. Naringin inhibits matrix metalloproteinase-9 expression and AKT phosphorylation in tumor necrosis factor-alpha-induced vascular smooth muscle cells. *Mol Nutr Food Res*. 2009 Dec;53(12):1582-91.
6. Leopoldini M, Malaj N, Toscano M, Sindona G, Russo N. On the inhibitor effects of bergamot juice flavonoids binding to the 3-hydroxy-3-methylglutaryl-CoA reductase (HMGR) enzyme. *J Agric Food Chem*. 2010 Oct 13;58(19):10768-73.
7. Di Donna L, De Luca G, Mazzotti F, Napoli A, Salerno R, Taverna D, Sindona G. Statin-like principles of bergamot fruit (*Citrus bergamia*): isolation of 3-hydroxymethylglutaryl flavonoid glycosides. *J Nat Prod*. 2009 Jul;72(7):1352-4.
8. Miceli N, Mondello M, Monforte M, Sdrafkakis V, Dugo P, Crupi M, Taviano M, De Pasquale R, Trovato A. Hypolipidemic effects of *Citrus bergamia* Risso et Poiteau juice in rats fed a hypercholesterolemic diet. *J Agric Food Chem*. 2007, 55, 10671–10677.
9. Mollace V, Romeo F. Bergamot extracts normalize metabolic targets in rats and patients suffering from dyslipidemia and metabolic syndrome. (Unpublished data)
10. Mollace V, Sacco I, Janda E, Malara C, Ventrice D, Colica C, Visalli V, Muscoli S, Ragusa S, Muscoli C, Rotiroti D, Romeo F. Hypolipemic and hypoglycaemic activity of bergamot polyphenols: from animal models to human studies. *Fitoterapia*. 2011 Apr;82(3):309-16.

pure
encapsulations®



490 Boston Post Road
Sudbury, MA 01776 USA

PRSRT STD
U.S. POSTAGE
PAID
DENVER, CO
PERMIT NO. 5377

Pure Encapsulations, Inc., 490 Boston Post Road, Sudbury, Massachusetts 01776 USA
info@PureEncapsulations.com | www.PureEncapsulations.com | T: 800-753-2277 | F: 888-783-2277