

# BERGAMOT BPF



## CLINICAL APPLICATIONS

- *Helps Maintain Healthy Cholesterol Levels Already Within the Normal Range*
- *Multidimensional Support for Cardiovascular Health*
- *Preserves Arterial Health and Elasticity*
- *Supports Healthy CoQ-10 Levels*



## CARDIOVASCULAR HEALTH

Bergamot contains a powerful and unique array of cholesterol-balancing and cardio-protective polyphenolic flavonoids. Established clinical research has demonstrated that bergamot polyphenols help maintain healthy total cholesterol (TC), high density lipoprotein (HDL), low density lipoprotein (LDL), very low density lipoprotein (VLDL) and triglyceride (TRI) levels. Research has also demonstrated that Bergamot provides antioxidant-balancing properties and maintains normal inflammatory balance to help preserve coronary arteries.

### Overview

Optimizing cardiovascular health is a leading concern for many adults, and maintaining healthy cholesterol levels, LDL particle size, glucose regulation and inflammatory balance are some of the most important targets of integrative therapies.

Numerous clinical trials have shown the specific polyphenols found in Bergamot work at the level of the liver to help maintain healthy cholesterol levels already within the normal range, metabolic function and preserves coronary arteries by maintaining normal inflammatory balance.

### What are Bergamot Polyphenols?

Bergamot (*Citrus bergamia*) is a citrus plant that grows almost exclusively in the narrow coastal Calabria region in southern Italy. The local population quickly discovered bergamot juice could be used to help support healthy cholesterol levels and optimize cardiovascular wellness.

Bergamot's health benefits derive from its unique profile of phenolic compounds such as, neoeriocitrin, neohesperidin, naringin, rutin, neodesmin, rhoifolin and poncirin. Naringin has been shown to be beneficial in maintaining normal inflammatory balance, while neoeriocitrin and rutin have been found to exhibit a strong capacity to quench free radicals and maintain healthy

LDL cholesterol levels. Also, bergamot is rich in brutieridin and melitidin, which have a unique ability to modulate the HMG-CoA reductase enzyme.

Using a patented extraction technology through collaborative works of various universities and research institutions, Bergamot contains Bergamonte® BPE-C, an industry-leading extract containing the albedo (the white rind material), typically removed during the extraction process, creating a bergamot extract that is true to the whole bergamot fruit.

### Cardiovascular Properties<sup>†</sup>

In a placebo-controlled, clinical trial consisting of 77 patients divided into four treatment groups, 1,000 mg of bergamot polyphenols helped maintain healthy levels of all blood lipid markers (HDL, LDL, TC, TRI).<sup>1</sup> Also, this same clinical trial showed that BPF activated the inflammatory-balancing enzyme AKT and reduced malondialdehyde production in neutrophils.<sup>1</sup> Another clinical trial conducted on 80 patients over six months showed 1,500 mg of BPF maintained normal levels of small density LDL and supported normal carotid IMT thickness.<sup>2</sup> In a placebo-controlled study involving 238 patients, 1,000 mg of bergamot polyphenols maintained healthy cholesterol levels and outperformed the group receiving the traditional therapy.<sup>3</sup>

Following a 60-day wash out phase in patients who had been on traditional therapies, 1,500 mg of bergamot polyphenols maintained normal LDL levels and optimized several other parameters of cardiovascular health.<sup>3</sup> Several other recently published placebo-controlled clinical trials have also documented that bergamot can help maintain many other parameters of cardiometabolic health including healthy levels of fasting glucose, HOMA-IR as well as leptin and ghrelin, and normal inflammatory balance, antioxidant potential and CoQ-10 levels in humans.<sup>4-13</sup>

<sup>†</sup> 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.

## Directions

2 capsules per day or as recommended by your health care professional.

## Does Not Contain

Gluten, corn, yeast, artificial colors or flavors.

## Cautions

If you are pregnant or nursing, consult your health care professional before taking this product.

Supplement Facts <sup>v3</sup>		
Serving Size 2 Capsules Servings Per Container 30 & 60		
2 capsules contain	Amount Per Serving	% Daily Value
Bergamot Orange Extract ( <i>Citrus bergamia</i> Risso)(Fruit) (Bergamonte®) (38% Bergamot Polyphenolic Fraction® comprised of Neohesperidin, Naringin, Neohesperidin, Brutieridin, and Melitidin)	1 g	*
* Daily Value not established		

Other Ingredients: Natural Vegetable Capsules, Magnesium Stearate, Stearic Acid, and Silicon Dioxide.

ID# 598060 60 Capsules

ID# 598120 120 Capsules

## References

- Gliozzi M, Walker R, Muscoli S, Vitale C, Gratteri S, Carresi C, Musolino V, Russo V, Janda E and Ragusa S. Bergamot polyphenolic fraction enhances rosuvastatin-induced effect on LDL-cholesterol, LOX-1 expression and protein kinase B phosphorylation in patients with hyperlipidemia. *International journal of cardiology*. 2013;170:140-145.
- Toth PP, Patti AM, Nikolic D, Giglio RV, Castellino G, Biancucci T, Geraci F, David S, Montalto G and Rizvi A. Bergamot Reduces Plasma Lipids, Atherogenic Small Dense LDL, and Subclinical Atherosclerosis in Subjects with Moderate Hypercholesterolemia: A 6 Months Prospective Study. *Frontiers in pharmacology*. 2015;6.
- Mollace V, Sacco I, Janda E, Malara C, Ventrice D, Colica C, Visalli V, Muscoli S, Ragusa S and Muscoli C. Hypolipemic and hypoglycaemic activity of bergamot polyphenols: from animal models to human studies. *Fitoterapia*. 2011;82:309-316.
- Di Donna L, Iacopetta D, Cappello AR, Gallucci G, Martello E, Fiorillo M, Dolce V and Sindona G. Hypocholesterolaemic activity of 3-hydroxy-3-methyl-glutaryl flavanones enriched fraction from bergamot fruit (*Citrus bergamia*): "In vivo" studies. *Journal of Functional Foods*. 2014;7:558-568.
- Campolongo G, Riccioni CV, Raparelli V, Spoletini I, Marazzi G, Vitale C and Volterrani M. The combination of nutraceutical and simvastatin enhances the effect of simvastatin alone in normalising lipid profile without side effects in patients with ischemic heart disease. *IJC Metabolic & Endocrine*. 2016;11:3-6.
- Cappello A, Dolce V, Iacopetta D, Martello M, Fiorillo M, Curcio R, Muto L and Dhanyalayam D. Bergamot (*Citrus bergamia* Risso) Flavonoids and Their Potential Benefits in Human Hyperlipidemia and Atherosclerosis: an Overview. *Mini reviews in medicinal chemistry*. 2015.
- Giglio RV, Patti AM, Nikolic D, Volti GL, Al-Rasadi K, Katsiki N, Mikhailidis DP, Montalto G, Ivanova E and Orekhov AN. The effect of bergamot on dyslipidemia. *Phytomedicine*. 2015.
- Janda E, Lascalea A, Martino C, Ragusa S, Nucera S, Walker R, Gratteri S and Mollace V. Molecular mechanisms of lipid- and glucose-lowering activities of bergamot flavonoids. *PharmaNutrition*. 2016.
- Mollace V, Ragusa S, Sacco I, Muscoli C, Sculco F, Visalli V, Palma E, Muscoli S, Mondello L and Dugo P. The protective effect of bergamot oil extract on lecithine-like oxyLDL receptor-1 expression in balloon injury-related neointima formation. *Journal of cardiovascular pharmacology and therapeutics*. 2008;13:120-129.
- Risitano R, Currò M, Cirimi S, Ferlazzo N, Campiglia P, Caccamo D, Ientile R and Navarra M. Flavonoid fraction of Bergamot juice reduces LPS-induced inflammatory response through SIRT1-mediated NF-κB inhibition in THP-1 monocytes. *PLoS One*. 2014;9:e107431.
- Trombetta D, Cimino F, Cristani M, Mandalari G, Saija A, Ginestra G, Speciale A, Chirafisi J, Bisignano G and Waldron K. In vitro protective effects of two extracts from bergamot peels on human endothelial cells exposed to tumor necrosis factor-α (TNF-α). *Journal of agricultural and food chemistry*. 2010;58:8430-8436.
- Benson J. ALTERNATIVE MEDICINE CABINET: Bergamot. *Alternative Medicine*. 2015:49.
- Capomolla AS, Janda E, Paone S, et al. Atherogenic Index Reduction and Weight Loss in Metabolic Syndrome Patients Treated with A Novel Pectin-Enriched Formulation of Bergamot Polyphenols. *Nutrients*. 2019;11(6):1271. Published 2019 Jun 4. doi:10.3390/nu11061271.

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