# 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 Bioactive Polyphenolic Fractions (BPF) contains a powerful and unique array of cholesterol-balancing and cardio-protective polyphenolic flavonoids. Emerging clinical research has demonstrated that BPF 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 BPF 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 balanced cholesterol levels are an important part of that process. Though cholesterol can be consumed through food, circulating cholesterol levels are primarily produced and controlled by the liver using the rate control enzyme, HMG-CoA reductase (HMGCR). Because of its pronounced role in cholesterol synthesis, inhibiting HMGCR has become a primary target of many traditional therapies.

Numerous clinical trials have shown the specific BPF found in Bergamot BPF works at the level of the liver to help maintain and support healthy cholesterol levels and preserve coronary arteries by maintaining normal inflammatory balance.

# What are Bergamot Polyphenolic Fractions?

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 brutieridine and melitidine, which have a unique ability to dampen HMG-CoA reductase.

Using a patented extraction technology through collaborative works of various universities and research institutions, Bergamot BPF contains Bergamonte®, the highest concentration available of these potent phenolic compounds.\*

#### Cholesterol-Balancing Properties<sup>†</sup>

In a placebo-controlled, clinical trial consisting of 77 patients divided into four treatment groups, 1,000 mg of BPF helped maintain healthy levels of all blood lipid markers (HDL, LDL, TC, TRI).¹ Also, this same clinical trial showed that BPF activated the inflammatory-balancing enzyme AKT and reduced malondialdehyde production in neutrophils.¹ 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.² In a placebo-controlled study involving 238 patients, 1,000 mg of BPF maintained healthy cholesterol levels and outperformed the group receiving the traditional therapy.³



Following a 60-day wash out phase in patients who had been on traditional therapies, 1,500 mg of BPF 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 BPF can help maintain normal inflammatory balance, antioxidant potential, healthy cholesterol levels, and CoQ-10 levels in humans.<sup>4-12</sup>

#### **Directions**

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

# **Does Not Contain**

Gluten, corn, yeast, artificial colors and flavors.

# **Cautions**

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

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

ID# 598060 60 Capsules ID# 598120 120 Capsules

#### References

- 1. 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.
- 2. 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.
- 3. 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.

- 4. Di Donna L, lacopetta 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.
- 5. 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.
- 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.
- 7. 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.
- 8. Janda E, Lascala A, Martino C, Ragusa S, Nucera S, Walker R, Gratteri S and Mollace V. Molecular mechanisms of lipidand glucose-lowering activities of bergamot flavonoids. PharmaNutrition. 2016.
- 9. 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 lecitine-like oxyLDL receptor-1 expression in balloon injury-related neointima formation. Journal of cardiovascular pharmacology and therapeutics. 2008;13:120-129.
- 10. Risitano R, Currò M, Cirmi S, Ferlazzo N, Campiglia P, Caccamo D, lentile 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.
- 11. 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.
- 12. Benson J. ALTERNATIVE MEDICINE CABINET: Bergamot. Alternative Medicine. 2015:49.
  - \*Research quoted are based on BPF by H&AD

