

French Red Wine Grape Extract with BioVin® Advanced



INGREDIENTS

French Red Wine Grape Extract contains BioVin® Advanced, an extract sold since 1988 that is prepared from whole red wine grapes of the Rhône Valley region of southern France. In addition to the extract's 5% red wine *trans*-resveratrol, it features a number of useful grape phytochemicals, including 30–35% red wine polyphenols such as flavonoid pigments called anthocyanins, and flavonols like oligomeric proanthocyanidins. Resveratrol is a stilbenoid molecule found in the skin of grapes that has a structure allowing it to donate up to three hydrogen atoms per molecule to reactive oxygen species (ROS), thereby acting as an antioxidant that neutralizes free radicals.¹ It also appears to be especially beneficial in supporting a healthy cardiovascular system, and perhaps even longevity in humans.²

BENEFITS

- Enhances blood antioxidant capacity*
- Promotes healthy cardiovascular function*
- Supports healthy aging*

EXTENDED BENEFITS

Rich in Natural Antioxidants like Resveratrol

French Red Wine Grape Extract with BioVin® Advanced delivers a broad profile of valuable constituents present in wine grapes, including oligomeric proanthocyanidins (OPCs), gallic acid, quercetin, catechin, epicatechin and numerous others.³ The rich polyphenol content of red grapes makes them a potent source of antioxidants that are able to neutralize free radicals in the body.⁴ Accumulation of destructive free radicals such as ROS inevitably leads to oxidative stress in which the body's macromolecules, such as proteins, lipids, and DNA, are targeted and damaged.⁵⁻⁷ The body relies on its own (endogenous) antioxidants to scavenge free radicals in order to minimize cellular damage and consequently act to delay accelerated aging. Dietary antioxidants, such as those found in **French Red Wine Grape Extract**, help to increase the body's antioxidant capacity beyond its endogenous limitations, strengthening the body's defense with powerful free radical scavenging agents.⁷⁻⁹

Enhances blood antioxidant capacity*

In 2006, results from a randomized, controlled trial of 41 participants indicated that polyphenols in red grape juice are readily absorbed by humans.⁴ There was a statistically significant increase in blood antioxidant concentrations (using quercetin as a marker) for individuals consuming red grape juice, compared to control subjects. This confirmed a previous study in which 14 healthy volunteers consumed 375 mg of Biovin® per day for four weeks. The polyphenol content of Biovin® was absorbed in the gut, and it significantly increased blood antioxidant capacities from starting values.³ Additionally, the extract decreased the oxidation of blood proteins, which is notable because proteins comprise important metabolic enzymes and play a critical role in detoxification and DNA maintenance. In a more recent, *in vitro* investigation, red wine polyphenols inhibited the oxidation of polyunsaturated fatty acids—especially omega-3s—in human blood.¹⁰

The French Paradox

Despite the consumption of rich foods high in saturated fats, the French population is known to have relatively superior cardiovascular health. Epidemiological research by the World Health Organization revealed a cardiovascular advantage of two- to three- fold when comparing France to countries such as the USA, UK, and Sweden.² This phenomenon, first reported by Dr. Samuel Black in 1819, is known as the French Paradox.¹¹ The term itself was coined in 1992, about the time when researchers proposed that moderate wine consumption, which makes up over half the alcoholic drink consumption in France, accounted for the phenomenon.² Since then, thousands of studies have been carried out on different aspects of the French Paradox.

Supplement Facts

Serving Size 1 veggie capsule
Servings per container 90 servings

	Amount per serving	% Daily Value
BioVin® Advanced Red Wine Extract	60 mg	†
(containing 5% red wine <i>trans</i> -resveratrol and 30-35% red wine polyphenols)		
† Daily Value not established.		

Other Ingredients: Rice powder, modified cellulose (vegetarian capsule), silicon dioxide, magnesium stearate (vegetable source).

Suggested Adult Use: Take 1 capsule 2 times daily, with or without food, or as recommended by a nutritionally-informed physician.

Non-GMO / Gluten Free / Soy Free / Vegan
Store in a cool dry place

* 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.

A recent clinical trial found that compared to regular alcohol, red wine consumption produced more helpful cardiovascular effects.¹² Such results in conjunction with findings from many other studies have led researchers to attribute the beneficial effects of red wine to its rich polyphenol content, with particular attention given to resveratrol, an important constituent found in French Red Wine Grape Extract.^{2,11} French red wines, including those from the Rhône Valley, contain some of the highest concentrations of resveratrol among wines globally. The resveratrol content of red wines is ~1.0 mg per 1.5 oz. glass of wine. Thus, one capsule of BioVin® Advanced Red Wine Extract contains about 3.0 mg resveratrol which is approximately equivalent to that in 3 glasses of red wine.

Researchers found that healthy volunteers who ingested resveratrol and grape polyphenols before eating a high-fat, high-carbohydrate meal exhibited a reduction in oxidative stress.¹³ In cell cultures of lymphocytes from healthy human donors, resveratrol has been shown as defensive against ethanol-induced oxidative DNA damage.¹⁴ Preclinical research has identified resveratrol to induce SIRT1 gene expression, which is also influenced by caloric restriction, and believed to promote longevity.¹⁵⁻¹⁷

Promotes healthy cardiovascular function*

The French Paradox and research about it suggest that myriad red wine constituents, including the polyphenols and resveratrol, are likely responsible for the observed positive effect on cardiovascular health.¹⁸ One proposed mechanism of action for the vascular effects of red wine polyphenols are their ability to modulate nitric oxide (NO), which is involved in healthy blood vessel function.

An early *in vitro* investigation into the cardiovascular effects of resveratrol found that it induced the production of the nitric oxide synthase (NOS), an enzyme responsible for the production of nitric oxide, a vital signaling molecule in the vascular system.^{19,20} *In vitro* studies have illustrated how red wine and its polyphenols can promote vasodilation (increasing blood flow) by stimulating production of nitric oxide, and can enhance the bioactivity of the NO through antioxidant activity.²¹ Subsequent research revealed that physiologically relevant amounts of resveratrol can significantly enhance the production of NO.²²

During a preclinical investigation into the effect of red grape polyphenols, researchers also found that a red wine polyphenol extract was able to inhibit cardiac voltage-gated sodium channels, a phenomenon that may further contribute to the beneficial effect seen with the consumption of red wine/grape extracts.²³

In comparing the presence or absence of red wine on the effects of a high-fat (approximately 40% of calories from fat) Western diet on the function of blood vessel endothelium (the one cell thick layer that lines the blood vessel on the inside), researchers observed superior endothelial function in the presence of red wine.²⁴ In a controlled, double-blinded trial investigating red wine and dealcoholized red wine versus the effect of cigarettes in 16 healthy non-smokers, smoking 1 cigarette increased oxidative stress in the participants, which in turn significantly impacted endothelial function.²⁵ However, consumption of both regular and dealcoholized red wine was found to support healthy vessel function during smoking, leading the researchers to conclude that the polyphenols in red wine were responsible for the beneficial effects. In a subsequent trial by the same group, cardiovascular advantage seen with red wine consumption in smokers was attributed to the antioxidants in red wine.²⁶

Supports healthy aging*

Oxidative stress has been one of the most widely accepted theories behind aging.⁵ It is generally accepted that managing oxidative stress can

lead to longevity. Preclinical investigations have indicated that polyphenols found in grapes have a beneficial effect on neuronal and behavioral aging.²⁷



Science-Based Nutrition™

SAFETY

The consumption of 375 mg of Biovin per day by healthy human volunteers for a period of four weeks demonstrated that the extract was well tolerated.³ Animal studies further support the safety of resveratrol.²⁸

SCIENTIFIC REFERENCES

1. Caruso F, Tanski J, Villegas-Estrada A, Rossi M. *J Agric Food Chem* 2004;52:7279-85.
2. Catalgol B, Batirel S, Taga Y, Ozer NK. *Front Pharmacol* 2012;3:141.
3. Rao AV, Shen H, Agarwal A, others. *J Med Food* 2000;3:15-22.
4. Castilla P, Echarri R, Davalos A, others. *Am J Clin Nutr* 2006;84:252-62.
5. Salmon AB, Richardson A, Perez VI. *Free Radic Biol Med* 2010;48:642-55.
6. Devasagayam TP, Tilak JC, Bloor KK, others. *J Assoc Physicians India* 2004;52:794-804.
7. Gordon M. *Nat Prod Rep* 1996;13:265-73.
8. Schwedhelm E, Maas R, Troost R, Boger RH. *Clin Pharmacokinet* 2003;42:437-59.
9. Vitseva O, Varghese S, Chakrabarti S, others. *J Cardiovasc Pharmacol* 2005;46:445-51.
10. Cazzola R, Cestaro B. *Food Res Int* 2011;44:3065-3071.
11. Lippi G, Franchini M, Guidi G. *International Journal of Wine Research* 2010;2:1-7.
12. Porteri E, Rizzoni D, De Ciuceis C, others. *Am J Hypertens* 2010;23:373-8.
13. Ghanim H, Sia CL, Korzeniewski K, others. *J Clin Endocrinol Metab* 2011;96:1409-14.
14. Yan Y, Yang JY, Mou YH, others. *Food Chem Toxicol* 2012;50:168-74.
15. Chung S, Yao H, Caito S, others. *Arch Biochem Biophys* 2010.
16. Yoshida Y, Shioi T, Izumi T. *Circ J* 2007;71:397-404.
17. Nakata R, Takahashi S, Inoue H. *Biol Pharm Bull* 2012;35:273-9.
18. Guilford J, Pezzuto J. *Am J Enol Vitic* 2011;62:471-486.
19. Ignarro LJ, Cirino G, Casini A, Napoli C. *J Cardiovasc Pharmacol* 1999;34:879-86.
20. Hsieh TC, Juan G, Darzynkiewicz Z, Wu JM. *Cancer Res* 1999;59:2596-601.
21. Boban M, Modun D, Music I, others. *J Cardiovasc Pharmacol* 2006;47:695-701.
22. Gresele P, Pignatelli P, Guglielmini G, others. *J Nutr* 2008;138:1602-8.
23. Wallace CH, Baczko I, Jones L, others. *Br J Pharmacol* 2006;149:657-65.
24. Cuevas AM, Guasch V, Castillo O, others. *Lipids* 2000;35:143-8.
25. Papamichael C, Karatzis E, Karatzi K, others. *Am Heart J* 2004;147:E5.
26. Papamichael C, Karatzi K, Karatzis E, others. *J Hypertens* 2006;24:1287-92.
27. Shukitt-Hale B, Carey A, Simon L, others. *Nutrition* 2006;22:295-302.
28. Johnson WD, Morrissey RL, Osborne AL, others. *Food Chem Toxicol* 2011;49:3319-27.

* 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.

© Doctor's Best, Inc.
phone: 800-333-6977 • fax: 949-498-3952 • www.drbitamins.com