

BORN nutrition

Multidimensional Support for Optimal Blood Pressure
Helps Maintain Endothelial Cell Elasticity | Helps Preserve Coronary
Arteries | Enhances Circulating Nitric Oxide Levels



CitraOPT

This product is formulated specifically to maintain healthy blood pressure levels by enhancing endothelial cell and arterial function. Using a combination of high-dose L-citrulline, quercetin and grape seed extract, this product delivers full-spectrum support to help maintain normal inflammatory balance, arterial elasticity, optimal nitric oxide levels, and blood flow. This product provides a powerful formula for those seeking to optimize several mechanisms of cardiovascular health.

Overview

Stress placed on coronary arteries as a result of normal cardiac function is an expected part of the aging process. This stress can lead to disruptions in arterial function, proliferation of vascular smooth muscle, decreases in circulating nitric oxide (NO) levels, and eventually vasocontraction of key coronary arteries.^{1,2} This product provides a blend of targeted nutrients designed to help dampen this stress by maintaining normal inflammatory balance, balancing NO levels, maintaining smooth muscle integrity, and optimizing vasodilation of key coronary arteries.

L-Citrulline[†]

L-citrulline is one of three dietary amino acids in the urea cycle responsible for converting ammonia into urea as well as for the production of NO, an important cellular signaling molecule. In this process, L-citrulline is the natural precursor of L-arginine, the substrate used by endothelial nitric oxide synthase (eNOS) to produce NO.

As a signaling molecule, NO has been shown to have a very powerful effect on vasodilation and blood flow.³⁻⁵ Because of this, optimizing circulating NO levels has long been a target

of aerobic and anaerobic athletes. In fact, numerous clinical trials have been conducted showing that L-citrulline and L-arginine supplementation have a profound effect on exercise performance and power output.⁶⁻¹⁰

The benefits of circulating NO levels stretch far beyond exercise performance. As a vasodilator, NO improves arterial elasticity, decreases platelet adhesion, scavenges free radicals, and prevents oxidation of LDL cholesterol.¹¹⁻¹³ Studies show low levels of NO are associated with endothelial cell dysfunction, vasoconstriction, and blood flow challenges.¹³⁻¹⁵ Unfortunately, supplemental L-arginine has a small, transient effect, with no long-term benefit on circulating NO levels, because liver metabolism restricts excess arginine from the blood to avoid long-term physiological consequences.^{14,16,17}

However, recent research shows that supplementing L-citrulline bypasses liver metabolism, thus making it more bioavailable in the blood stream and allowing it to significantly impact circulating NO levels.¹⁸ In a direct comparison, a recent study showed 3,000 mg of L-citrulline supplementation increased circulating NO levels 1.6-fold higher than 3,200 mg of L-arginine.¹⁹ Another direct comparison study showed L-citrulline supplementation significantly sustained peak plasma NO levels for upwards of four hours, and NO levels in the L-arginine group begin to decline at 1.5 hours.²⁰

Quercetin Dihydrate[†]

A flavonoid found in a variety of botanicals, vegetables and fruits, quercetin is a potent antioxidant that inhibits inducible ICAM-1 expression, an important pathway for maintaining normal inflammatory balance.²¹ Quercetin has been shown to support normal inflammatory balance by directly inhibiting the

activity of NFkB, similar to turmeric.²² Quercetin is known for its ability to improve endothelial cell dysfunction by maintaining normal inflammatory balance in specific pathways.²³

MegaNatural® BP Grape Seed Extract†

MegaNatural® BP is a premium grape seed extract made in California from a special seed blend extracted with water from a variety of white wine grape seeds. Grapes and grape products contain phenolic compounds found to have health-promoting properties, particularly in cardiovascular wellness.²⁴ Grape seed extract has a high concentration of phenolic compounds, which have been found to support healthy arterial dilation and blood flow. These polyphenols have been shown to activate NOS, the enzyme that facilitates NO production.²⁵

A study examining the effects of MegaNatural® BP grape seed extract in 27 volunteers found that after four weeks of supplementation with either 150 mg or 300 mg, the participants were able to maintain healthy blood pressure levels.²⁶ The participants taking 300 mg also had a significant reduction in oxidized low-density lipoprotein when compared to placebo.

Directions

4 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			V1
Serving Size 4 Capsules			
Servings Per Container 30			
4 capsules contain	Amount Per Serving	% Daily Value	
L-Citrulline	3 g	*	
Grape Seed Extract (MegaNatural®-BP)	200 mg	*	
Quercetin Dihydrate	200 mg	*	
* Daily Value not established			

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† 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.

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