

Esterol Ester-C®

Calcium Ascorbate with Bioflavonoids

Esterol contains vitamin C in the form of Ester-C® calcium ascorbate, and the bioflavonoids quercetin, rutin, and proanthocyanidins from grape seed extract. Several studies suggest that the unique structure of Ester-C® may make it more readily absorbed and less rapidly excreted than other forms of vitamin C.* Rapid cellular uptake and delayed renal excretion of ascorbic acid are conducive to providing optimum cellular concentration for biochemical activity.* Ester-C® has a pH of 7.0, potentially reducing acidity and improving bowel tolerance.* Bioflavonoids work synergistically with vitamin C.*

Key Benefits

- Provides Ester-C® vitamin C, which may be more readily absorbed and less rapidly excreted than other forms of vitamin C*
- Supports a wide variety of biochemical reactions throughout the body, including antioxidant activity, detoxification process, immune system functions, and collagen integrity*



SKU #70070 · 100 capsules
SKU #70080 · 200 capsules

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Researchers at the University of Mississippi School of Pharmacy compared the effects of ingesting Ester-C® and L-ascorbic acid, using special rats that lack the L-gulonolactone oxidase necessary for the synthesis of vitamin C (a trait shared with human beings). Ester-C® showed slower excretion and higher plasma values of ascorbic acid, providing increased cellular concentration for biochemical activity.* A human study showed similar results for Ester-C®, including: significantly higher serum levels than L-ascorbic acid at 4, 8 and 24 hours after ingestion, as well as after 7-10 days of continuous ingestion; significantly higher white blood cell levels at 8 and 24 hours after ingestion and after 7-10 days of continuous ingestion; substantially less oxalate excretion in the first 24 hours after ingestion, as well as after 7-10 days of continuous ingestion; and substantially less urinary ascorbate loss in both the first 24 hours of ingestion and after 7-10 days of continuous ingestion.* A 2009 randomized, double-blind, crossover study at the University of Michigan Medical Center in Ann Arbor found that Ester-C® significantly reduced urine oxalate levels compared to ascorbic acid.*

Vitamin C is an important water-soluble antioxidant nutrient, involved in a wide variety of biochemical reactions. It is stored in tissues throughout the body, and is especially concentrated in the adrenal glands, where it is crucial for the production of adrenal hormones involved in responding to stress.* The body uses vitamin C in immune system functions including white blood cell production, histamine release and degradation, the reduction of glutathione, and the metabolism and protection of several other nutrients.* Vitamin C is involved in the body's detoxification process, assisting in the elimination of heavy metals such as lead, cadmium, mercury and nickel.* It is involved in the production of collagen and elastin, important connective tissue proteins.* Vitamin C may also support HDL cholesterol within normal levels, and bone mineral density.*

Calcium is important for skeletal health, with 99% of calcium occurring in the bones and teeth, and the rest found in cells and body fluids. Calcium is involved in many functions in the human body, including initiation of muscle contractions, the blood clotting process, and the regulation of nutrient and waste product transport through cell membranes.* It also is involved with enzymes that control fat digestion and metabolism, blood pressure, cholesterol, hormones, and nerve impulse transmission.*

Rutin can help strengthen capillaries and may support circulation.* Rutin also has powerful antioxidant activity, with the ability to disarm reactive oxygen species including superoxide radicals and ferrous cations.* It modulates the respiratory burst of neutrophils, helps maintain levels of reduced glutathione, prevents oxidation of vitamin C, and may inhibit lipid peroxidation.*

Quercetin is an antioxidant bioflavonoid found in many foods. Quercetin supports the body's ability to inhibit the release of histamine and other important signaling pathway metabolites. It can enhance the strength and permeability of the capillaries, support coronary vaso-relaxation, and help protect cholesterol and tissues in the body from oxidative damage.*

Grape Seed Extract contains flavonol proanthocyanidins, which have undergone extensive clinical and toxicological studies. Grape seed proanthocyanidins are the main phenolic antioxidants found in red wine, and exhibit powerful antioxidant activity, due to their diphenol components and related structures.* They can protect against peroxy free radicals in the tissues, inhibit the peroxidation of ingested lipids during the digestive process, and support the integrity of collagen structures and the capillaries.*

Supplement Facts

Serving Size 2 Capsules
Servings Per Container 100

Amount Per Serving	% Daily Value*
Vitamin C (as Calcium Ascorbate)	
1.35 g	1500%
Calcium (as Calcium Ascorbate)	
150 mg	12%
Rutin	100 mg †
Quercetin	50 mg †
Grape Seed Extract (92% Proanthocyanidins)	5 mg †

†Daily Value not established. *Percent Daily Value are based on a 2,000 calorie diet.

Other ingredients: Hydroxypropyl methylcellulose, magnesium stearate, silicon dioxide.

Suggested Use: As a dietary supplement, 1 or 2 capsules one or two times daily between meals, or as directed by a healthcare practitioner.

Esterol is better tolerated by some individuals than pure ascorbic acid.* However, Esterol may not be suitable for the severely allergic, because the Ester-C it contains is ultimately prepared from corn.

Ester-C® U.S. Patents: 4,822,816; 4,968,716; 5,070,085; 6,197,813; 6,468,980 and corresponding foreign patents. Other patents are pending.

References

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