SUSTAINED RELEASE

ENDUR-C®

VITAMIN C WITH ROSE HIPS

Promotes vascular health & antioxidant defense

endurance products COMPANY

Since 1978

WHAT IS IT?

ENDUR-C® Vitamin C with Rose Hips is a sustained-release dietary supplement that features high-potency vitamin C in a unique wax-matrix tablet with slow, steady release of ascorbic acid over 5 to 7 hours.

By releasing small amounts of vitamin C as the tablet travels through the intestine, ENDUR-C allows the body to slowly absorb vitamin C. In this way, it not only helps maintain optimal blood and tissue levels, but avoids excess loss in the urine that is typical of immediate-release delivery forms of high-dose vitamin C.

HOW DOES IT WORK?

ENDUR-C provides antioxidant support for whole body health, including immune, skin, and nerve health, and healthy blood vessel function.

WHO CAN BENEFIT?

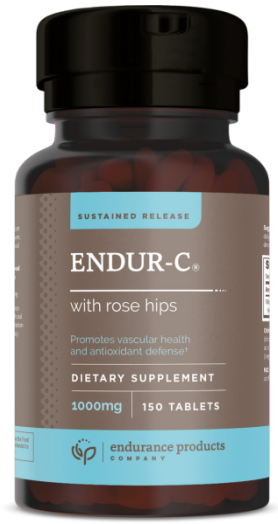
For adults who need to fortify the body's antioxidant defenses and promote optimal immune, skin and nerve health. People interested in healthy blood vessel function and optimal blood flow can also experience benefits.

PRODUCT AVAILABILITY

Bottle Size(s):
200, 500 tablets (500mg)
150, 300 tablets (1000mg)

PRACTITIONER DISTRIBUTION

- Emerson® Ecologics (www.emersonecologics.com)
- Fullscript™ (www.fullscript.com)
- WholeScript™ (www.wholescript.com)



Supplement Facts

Serving Size 1 Tablet

Amount Per Tablet		% DV
Vitamin C (as ascorbic acid, rose hips)	500 mg	556%

Supplement Facts

Serving Size 1 Tablet

Amount Per Tablet		% DV
Vitamin C (as ascorbic acid, rose hips)	1000 mg	1111%

Other Ingredients: Vegetable wax (rice bran and/or carnauba), stearic acid (vegetable), magnesium stearate (vegetable), and silica.

Suggested Use: Take one (1) tablet daily, preferably with a meal, or as directed by your healthcare provider.

This information is for healthcare professionals only to inform patient treatment and is not intended for consumer use.

RESEARCH HIGHLIGHTS

Supports whole body health

Every cell in the body needs vitamin C to work at peak performance. It acts as a protective antioxidant and plays a role in immune, skin and nerve health, and iron metabolism. Key functions include:[1]

- **Protects the body against free radical damage.** As an antioxidant, vitamin C has the ability to neutralize free radicals that, when produced in excess, can damage cells. The body produces free radicals as a byproduct of normal metabolism, but production can increase in response to exposure to smog, smoking, other environmental toxins, sunlight and other sources of oxidative stress. In the blood, vitamin C also helps recycle and reactivate another antioxidant, vitamin E.
- **Supports healthy immune function.** Vitamin C helps maintain the protective mucous membranes that line the nose, mouth, throat and intestinal tract. It also plays a role in the production or activation of key immune cells and helps ensure a healthy inflammatory response.
- **Promotes healthy skin.** Vitamin C is essential for collagen formation. Collagen forms the base for all of the connective tissues in the body — skin, bones, teeth and tendons. The integrity of the skin and underlying capillaries relies directly on healthy collagen production.
- **Promotes a healthy nervous system.** Vitamin C plays a role in the synthesis of neurotransmitters. The central role of vitamin C in neurotransmitter synthesis likely explains its high level in the brain.
- **Supports iron metabolism.** In the intestine, vitamin C converts the type of iron found in plant foods (non-heme iron) into a form that the body is better able to absorb. Vitamin C also helps move iron from the blood to the liver for storage.

Supports healthy endothelial function

The known functions of vitamin C in collagen synthesis, endothelial growth and survival, and free radical scavenging make it important in supporting the vascular bed, promoting blood vessel tone, and maintaining healthy endothelial function.[1] By helping to maintain endothelial function, vitamin C helps promote a healthy inflammatory response and overall blood vessel health.

In one meta-analysis[2] of 44 randomized, controlled clinical trials, vitamin C supplementation was shown to have a significant positive effect ($P<.001$) on endothelial function in healthy and diseased populations. The meta-regression showed a significant positive association ($P=.03$) between vitamin C dose and improvement in endothelial function. These findings suggest that vitamin C supplementation improves endothelial function with stronger effects in those at higher cardiovascular disease risk.

Helps restore endothelial function during vaccine-induced acute inflammation

In one pilot study,[3] supplemental vitamin C (2 g) was found to restore endothelial function during acute inflammation in generally healthy young and older adults, with no effect on aortic stiffness. Vitamin C restored brachial flow-mediated dilation (FMD) to initial values prior in inflammatory challenge (typhoid vaccine) ($P<.01$) with no change in inflammatory markers or carotid-femoral pulse wave velocity (PWV). This finding suggests that the ability of vitamin C to eliminate vascular dysfunction during acute inflammation is unrelated to reductions in inflammatory markers. Rather, the authors suggest it may be related to changes in antioxidant capacity and/or potential alterations in nitric oxide bioavailability.

1. Combs GF, et al. Vitamin C. In: *The Vitamins: Fundamental Aspects in Nutrition and Health*. 5th ed. Academic Press; 2017: 267-295.
2. Ashor AW, et al. *Atherosclerosis*. 2014;235(1):9-20.
3. Lefferts EC, et al. *Physiol Rep.* 2021;9(21):e15104.