

# Buffered Vitamin C

1000 mg / Antioxidant and Immune Support



## DESCRIPTION

Buffered Vitamin C contains 100% pure, corn-free vitamin C (L-ascorbic acid), specially buffered with calcium and bioflavonoid complex.

## FUNCTIONS

Vitamin C (ascorbic acid) has numerous biological functions. Foremost, it is essential for the synthesis of collagen and glycosaminoglycans which are the building materials of all connective tissues, such as skin, blood vessels, tendons, joint cartilage, and bone. Vitamin C is the required coenzyme for two groups of enzymes that catalyze the crosslinking of collagen fibers - lysyl hydroxylases and prolyl hydroxylases. As such, vitamin C is essential for normal wound healing and capillary health.

Vitamin C participates in the biosynthesis of carnitine, serotonin, and certain neurotransmitters, including norepinephrine.

Vitamin C is among the most powerful antioxidants in humans and animals. It is a water-soluble, chain-breaking antioxidant that reacts directly with superoxide, hydroxyl radicals, and singlet oxygen. Laboratory studies show that vitamin C completely protects lipids in plasma and low-density lipoproteins (LDL) against atherogenic peroxidative damage. In addition, vitamin C interacts with glutathione and alpha-lipoic acid, and regenerates vitamin E. The antioxidant functions of vitamin C appear to have clinical significance in providing protection from free radical damage to the eyes, lungs, blood, and the immune system.

Research has also demonstrated ascorbic acid's ability to positively affect function of the immune system by optimizing synthesis of integral components of our immunological defenses.

Vitamin C is absorbed in the small intestine by a sodium-dependent transport process that is intake dependent. At normal dietary intakes of 60 to 100 mg, up to 80 or 90% of the vitamin C is absorbed. At higher intakes, absorption becomes less efficient. Absorption efficiency and vitamin C utilization may be greatly enhanced during conditions of physiological stress, such as trauma or infection.

## INDICATIONS

Buffered Vitamin C tablets may be a useful dietary supplement for individuals who wish to obtain the antioxidant action of vitamin C in a buffered mineral ascorbate form that may minimize stomach irritation associated with the acidity of regular vitamin C preparations.

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.

## FORMULA (WW #10328)

### 1 Vegetarian Tablet Contains:

Vitamin C (as calcium & sodium ascorbate) ... 1,000 mg  
Calcium (as calcium ascorbate) ..... 125 mg  
Sodium (as sodium ascorbate) ..... 22 mg  
Citrus Bioflavonoids ..... 200 mg  
Other Ingredients: Cellulose, vegetable stearin, cellulose gum, magnesium stearate, and silica.

Calcium and Sodium Ascorbate are non-acidic forms of Vitamin C and are gentler than regular Vitamin C on the stomach and teeth.

This product is vegetarian and contains NO sugar, dairy, yeast, wheat, gluten, corn, soy, preservatives, artificial colors or flavors.

## SUGGESTED USE

Adults take 1 tablet daily or as directed by a healthcare professional.

## SIDE EFFECTS

No adverse effects have been reported.

## STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

## REFERENCES

- Allard JP, Aghdassi E, Chau J, et al. Effects of vitamin E and C supplementation on oxidative stress and viral load in HIV-infected subjects. *Aids* 1998;12:1653-9.
- Anderson JW, Gowri MS, Turner J, et al. Antioxidant supplementation effects on low-density lipoprotein oxidation for individuals with type 2 diabetes mellitus. *J Am Coll Nutr* 1999;18:451-61.
- Campbell JD, Cole M, Bunditratavorn B, et al. Ascorbic acid is a potent inhibitor of various forms of T cell apoptosis. *Cell Immunol* 1999;194:1-5.
- de la Fuente M, Ferrandez MD, Burgos MS, et al. Immune function in aged women is improved by ingestion of vitamins C and E. *Can J Physiol Pharmacol* 1998;76:373-80.
- Del Rio M, Ruedas G, Medina S, et al. Improvement by several antioxidants of macrophage function in vitro. *Life Sci* 1998;63:871-81.
- Hughes DA. Effects of dietary antioxidants on the immune function of middle-aged adults. *Proc Nutr Soc* 1999;58:79-84.
- Paolisso G, Tagliamonte MR, Rizzo MR, et al. Oxidative stress and advancing age: results in healthy centenarians. *J Am Geriatr Soc* 1998;46:833-8.
- Park E, Wagenbichler P, Elmadfa I. Effects of multivitamin/mineral supplementation, at nutritional doses, on plasma antioxidant status and DNA damage estimated by sister chromatid exchanges in lymphocytes in pregnant women. *Int J Vitam Nutr Res* 1999;69:396-402.
- Schwager J, Schulze J. Modulation of interleukin production by ascorbic acid. *Vet Immunol Immunopathol* 1998;64:45-57.
- Simon JA, Grady D, Snabes MC, et al. Ascorbic acid supplement use and the prevalence of gallbladder disease. Heart & Estrogen-Progestin Replacement Study (HERS) Research Group. *J Clin Epidemiol* 1998;51:257-65.
- Victor VV, Guayerbas N, Puerto M, et al. Ascorbic acid modulates in vitro the function of macrophages from mice with endotoxic shock. *Immunopharmacology* 2000;46:89-101

Manufactured For:

**Fireside Pharmacy**

73847 Hwy III

Palm Desert, CA 92260

760.346.1113