Vitamin C Crystals
Pure Ascorbic Acid

DESCRIPTION
Vitamin C Crystals, provided by Douglas Laboratories, contains 100% pure vitamin C (ascorbic acid) in a powder.

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 lipoprotein (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.

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. Maximal absorption is attained by the ingestion of several doses spaced throughout the day rather than in one, larger dose.

INDICATIONS
Vitamin C Crystals may be a useful dietary supplement for those who wish to increase their daily intake of this important antioxidant vitamin.

FORMULA (#82145)
Each teaspoon contains:
Vitamin C ......................................................................................................................... 4,000mg

SUGGESTED USE
Mix ½ to 1 teaspoon in 8 ounces of water or juice or as directed by a healthcare professional.

SIDE EFFECTS
No adverse side effects have been reported.

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

Hennekens CH. Antioxidant vitamins and cancer. Am J Med 1994;97 Suppl. 3A:2S-4S.
Kodama M, Kodama T, Murakami M. Autoimmune disease and allergy are controlled by vitamin C treatment. In Vivo 1994;8:251-258.


Yokoyama T, Sasaki H, Giblin FJ, Reddy VN. A physiological level of ascorbate inhibits galactose cataract in guinea pigs by decreasing polyol accumulation in the lens epithelium: a dehydroascorbate-linked

For more information on Vitamin C Crystals visit douglaslabs.com

† 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.