

# Vitamin C Crystals

## Pure Ascorbic Acid

### DESCRIPTION

Vitamin C Crystals, provided by Douglas Laboratories, contains 100% pure, corn-free 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 ..... 4,000 mg

### SUGGESTED USE

Mix ½ to 1 teaspoon in 8 ounces of water or as directed by a physician

### 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

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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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