

# Beta-Carotene

25,000 IU (15mg) / Natural Mixed Carotenoids



## DESCRIPTION

Beta-Carotene is extracted from a potent natural source of *Dunaliella salina* sea algae. *D. salina* provides the two main beta-carotene isomers in an approximately equal ratio of all-trans to 9-cis-beta-carotene. In addition, small amounts of 13-cis-beta-carotene and other carotenoids are present, such as alpha-carotene, lutein, zeaxanthin, cryptoxanthin, and lycopene, as well as other natural vegetable sources, such as chlorella and spirulina.

## FUNCTIONS

Beta-carotene is a safe precursor of Vitamin A. Human intestinal enzymes convert dietary beta-carotene into active Vitamin A. The extent of this conversion appears to be based on the need for vitamin A since even very large amounts of beta-carotene do not increase plasma or liver vitamin A levels above normal. One milligram of beta-carotene provides 1,667 IU of vitamin A activity. Beta-carotene not converted to vitamin A is absorbed intact and has other functions in the body.

Beta-carotene is an important antioxidant nutrient that protects healthy cells from oxidative and free radical damage. Free radicals are unstable chemicals formed in the body during metabolism and from exposure to environmental sources such as pollution and cigarette smoke. Free radicals are necessary for energy metabolism and immune function, but when an excessive number of free radicals are formed, they can attack healthy cells, especially their membrane lipids and proteins. This, in turn, is thought to contribute to a number of degenerative diseases.

Beta-carotene efficiently quenches a chemically reactive species of oxygen called singlet oxygen. Singlet oxygen participates in oxidative reactions which can impair or destroy important cellular components, such as membranes, nucleic acids (DNA), and enzymes. In addition, singlet oxygen reactions can generate free radicals which lead to further damage. Beta-carotene's long, conjugated molecule can absorb the energy of singlet oxygen and release it safely as heat. In the process, singlet oxygen is converted to less dangerous, regular oxygen. One molecule of beta-carotene can quench about a thousand molecules of singlet oxygen. Numerous studies have demonstrated the importance of beta-carotene for normal immune function. The immune benefits of beta-carotene are due to its vitamin A precursor role and its antioxidant functions.

## INDICATIONS

Beta-Carotene may be a useful dietary supplement for those who wish to increase their daily beta-carotene intake.

## FORMULA (WW #10012)

### 1 Softgel Capsule Contains:

Vitamin E (as d-alpha tocopherol) .....	1 IU
Natural Mixed Carotenoids (from <i>D. salina</i> ) .....	15 mg
Beta Carotene.....	14,288 mcg
Alpha Carotene .....	450 mcg
Zeaxanthin.....	90 mcg
Cryptoxanthin.....	105 mcg
Lutein .....	67 mcg
Other Ingredients: Capsule (gelatin, glycerin, and water), annatto powder, soybean oil, and beeswax. Contains soy.	

This product contains NO sugar, salt, dairy, yeast, wheat, corn, preservatives, artificial colors or flavors.

## SUGGESTED USE

Adults take 1 softgel capsule daily with meals 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

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- Wei RR, Warner WG, Lambert LA, Kornhauser A. beta carotene update and effects on intracellular levels of retinol in vitro. *Nutr Cancer* 1998;30:53-8.

Manufactured For:

**Good Life Pharmacy**

125 South 16th St.  
Ord, NE 68862  
308.728.3295

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.