

# MacularProtect<sup>®</sup> Complete-S Capsules

*New! Improved formulation*

## Description

MacularProtect Complete-S combines a broad foundation of vitamins, minerals and antioxidants to provide powerful protection for macular and whole body health. Based on the AREDS clinical trial and other advanced research, MacularProtect Complete-S works to protect the macula, the area at the center of the retina where the sharpest central vision occurs. It also features a comprehensive multinutrient component that reflects the latest research on nutrition's role in overall body health. It contains no beta-carotene, and can be used by individuals, such as smokers, who should avoid high beta-carotene intake.

## MacularProtect Complete-S Highlights

- ▶ Convenient, all-in-one formula combines high-potency antioxidant protection with full multivitamin and mineral coverage
- ▶ Powerful support for individuals concerned about preserving their eyesight and maintaining overall body health
- ▶ Contains vitamins C and E, zinc and copper at levels found to support eye health in the AREDS clinical trial
- ▶ Provides 10 mg of FloraGLO<sup>®</sup> lutein and 1 mg zeaxanthin, reflecting the latest scientific findings for macular health
- ▶ **New!** Now features trans-resveratrol – a heart-healthy component of red wine, as well as turmeric for colon health, and higher B-vitamins
- ▶ Contains no beta-carotene – can be used by individuals who should avoid high beta-carotene intake, such as smokers
- ▶ Features a diverse array of bioflavonoids and antioxidants in addition to essential vitamins and minerals
- ▶ Made from premium ingredients and manufactured according to the highest quality standards

## Results from the Landmark AREDS Clinical Trial

AREDS, a long-term clinical trial, reported in 2001 that high-risk category patients supplementing with antioxidants and zinc improved the chance of retaining their macular health status by 25% and preserving their vision by 19%<sup>1</sup>.

## Importance of Multinutrients

Staying healthy as we grow older is just

as important as preserving our eyesight. That is one reason why the American Medical Association now advises that all adults take a daily multivitamin<sup>2</sup>. Multi-vitamin and mineral supplements have been shown to play a pivotal role in helping to maintain health and improve quality of life. Several well-controlled trials have demonstrated that healthy, older individuals who regularly take a complete multi-supplement experience fewer days of infection-related illness<sup>3</sup> and better cognitive function compared to those taking a placebo<sup>4</sup>. Long term use of multivitamins has been associated with a protective role in age-related ocular health<sup>5</sup>. Other studies underscore the need for supplementation of such diverse nutrients as folate and vitamin D to maintain a healthy colon and bone health, and selenium for prostate health<sup>6,7</sup>.

MacularProtect Complete-S offers a full range of essential vitamins and minerals, including important trace elements. It also contains key antioxidants such as lycopene, alpha lipoic acid, n-acetylcysteine and taurine that help neutralize free radicals and protect cells. For example, greater lycopene intake is linked to better odds of retaining prostate and pancreatic health<sup>8,9</sup>.

## Rationale for Inclusion of Key Ingredients

### Vitamin A (500 IU)

Vitamin A is essential for protecting night vision and is vital for the health of the eye's cornea. It also works with zinc and the amino acid taurine to support normal function of various eye structures such as retinal photoreceptors. The formula contributes a conservative level of vitamin A (retinyl palmitate) to ensure adequate body stores.

### Vitamin C (750 mg)

Vitamin C is a water-soluble antioxidant that is concentrated

in ocular tissues where it deactivates free radicals. Free radicals are the highly reactive compounds produced through the body's use of oxygen and generated by outside sources such as UV light. Oxidative damage to the retina is believed to be a risk factor for macular degeneration<sup>10</sup>. Vitamin C also aids in the recycling of other antioxidants such as vitamin E. Evidence indicates that the requirements for both vitamin C and E are higher in those who smoke<sup>11,12</sup>. MacularProtect Complete-S supplies the form and level of vitamin C used in AREDS, plus an additional 250 mg.

### Vitamin E (400 IU)

Fat-soluble vitamin E is the major chain-breaking antioxidant present in retinal and macular membranes. As a first line of defense against fatty acid peroxidation, vitamin E helps protect cell membranes against free radical attack. MacularProtect Complete-S uses natural source Vitamin E rather than synthetic, as research shows that natural source offers superior bioavailability and is better retained in tissues<sup>13</sup>. It also delivers broad spectrum vitamin E from alpha to gamma tocopherol, that together play a health-protective role<sup>14,15</sup>. The formula includes 400 IU of vitamin E, the level used in AREDS.

### Zinc (80 mg)

Zinc is an essential mineral that is selectively concentrated in the eye. It is found in the retina and choroid, ciliary body, iris, optic nerve, sclera, cornea, and lens. Within these ocular structures zinc is believed to interact with vitamin A and taurine to modify photoreceptor membranes, to help regulate the light-rhodopsin reaction, to influence nerve transmission, and to serve as an antioxidant<sup>16</sup>. MacularProtect Complete-S provides the same form and amount provided to AREDS participants.



MacularProtect Complete-S delivers a potent blend of nutrients found to protect macular health in the AREDS clinical trial, with the exception of beta-carotene, which has been excluded for those who should avoid high intake, such as smokers. It also features a comprehensive multivitamin component for whole body health.

**Suggested Use:** Take a total of four capsules daily, with meals.

**Note:** Pregnant or lactating women or individuals with medical conditions should consult a physician before using.

MacularProtect Complete-S contains 80 mg of zinc, a level that was found to support eye health in the AREDS clinical trial. Check with your physician prior to taking MacularProtect Complete-S to ensure that this level of zinc is appropriate for you. Keep out of the reach of children.

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.

Supplement Facts	
Serving Size 4 Capsules	Servings Per Container 30
	Amount Per Serving %Daily Value
Vitamin A (from retinyl palmitate)	500 IU 10%
Vitamin C (as ascorbic acid)	750 mg 1,250%
Vitamin D (as cholecalciferol)	900 IU 225%
Vitamin E (from d-alpha tocopheryl succinate and mixed tocopherols)	400 IU 1,333%
Thiamin (vitamin B1 from thiamine hydrochloride)	4.5 mg 300%
Riboflavin (vitamin B2)	5 mg 294%
Niacin (as niacinamide)	10 mg 50%
Vitamin B6 (from pyridoxine hydrochloride)	20 mg 1,000%
Folate (50% from folic acid, 50% from calcium folinate)	400 mcg 100%
Vitamin B12 (as cyanocobalamin)	100 mcg 1,667%
Biotin	100 mcg 33%
Pantothenic Acid (from calcium pantothenate)	12.5 mg 125%
Calcium (from calcium carbonate)	100 mg 10%
Iodine (from potassium iodide)	75 mcg 50%
Magnesium (from magnesium oxide)	100 mg 25%
Zinc (from zinc oxide)	80 mg 533%
Selenium (from selenomethionine)	70 mcg 100%
Copper (from copper oxide)	2 mg 100%
Manganese (from manganese amino acid chelate)	2.5 mg 125%
Chromium (from chromium polynicotinate)	100 mcg 83%
Molybdenum (from molybdenum amino acid chelate)	37.5 mcg 50%
Taurine	100 mg †
Acetylcysteine (N-acetyl-L-cysteine) (NAC)	75 mg †
Lemon Bioflavonoids (50% hesperidin complex)	50 mg †
Quercetin	50 mg †
Turmeric (95% curcuminoids)	25 mg †
Alpha Lipoic Acid	20 mg †
Ginkgo Leaf Extract (24% ginkgolflavone glycosides)	20 mg †
Bilberry Fruit Extract (25% anthocyanidins)	15 mg †
Grape ( <i>Vitis vinifera</i> ) Seed Extract (95% proanthocyanidins)	15 mg †
Lutein (FloraGLO®)	10 mg †
Lycopene	2 mg †
Trans-Resveratrol	1.25 mg †
Boron (from protein hydrolysate)	1 mg †
Zeaxanthin	1 mg †
Vanadium (from vanadyl sulfate)	15 mcg †

† Daily Value not established.

Other Ingredients: Gelatin, Water and Silica.



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## Copper (2 mg)

Copper is a mineral that is necessary for the function of an antioxidant enzyme. It is also needed to produce connective tissue, nerve sheaths, skin pigment, and for the proper utilization of iron. Since high levels of zinc compete with copper for absorption, copper is included in MacularProtect Complete-S to help ensure adequate levels of this essential mineral. The amount of supplemental copper in this formula represents 100% of the Daily Value and is the form and amount administered in the AREDS clinical trial.

## Lutein, FloraGLO® (10 mg) and Zeaxanthin (1 mg)

Lutein and zeaxanthin are two similarly structured carotenoids found in green leafy vegetables like spinach, kale and mustard greens. These carotenoids make up the macular pigment of the retina, the tissue with the highest concentration of lutein and zeaxanthin in the body<sup>17</sup>. As part of the macular pigment, zeaxanthin and lutein filter blue (visible) light that can cause photo-oxidative stress.

Population health studies have noted that macular pigment density is positively associated with age-related macular health<sup>18-20</sup>. Several intervention studies also indicate that consumption of these carotenoids can favorably modify the pigment density of the macula<sup>21,22</sup>. The amount of lutein supplied by MacularProtect Complete-S is consistent with that administered in a one-year clinical trial that reported improvements in visual performance<sup>22</sup>. The balanced ratio of zeaxanthin to lutein within this formula reflects natural dietary levels<sup>23</sup>.

## Other Essential Nutrients for Eye and whole body Health

B-vitamins, according to research, can reduce artery-damaging levels of homocysteine in the body, thus helping to retain normal cardiovascular function<sup>24</sup>. MacularProtect Complete-S provides robust levels of key B-vitamins, particularly vitamin B12, which can be difficult to absorb by those over 50, as well as vitamin B6 and folate for artery and colon health. This B vitamin trio was also found in one intervention trial to reduce AMD risk in women with or at risk for heart disease<sup>25</sup>.

Plant compounds with antioxidant activity such as the flavonoids contribute to the health benefits of eating five or more fruit and vegetable servings daily. Flavonoids support healthy circulation by modifying platelet aggregation<sup>26</sup> and increasing the antioxidant capacity of blood<sup>27</sup>. MacularProtect Complete-S contains a unique array of protective flavonoids from diverse sources: bilberry, citrus, grape seed, Ginkgo biloba and quercetin, which is found in many fruits and vegetables.

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