

# MacularProtect<sup>®</sup>

## Capsules

*New! Improved formulation*

### Description

MacularProtect is an antioxidant vitamin and mineral supplement designed to help maintain the health of the macula, the area at the center of the retina where the sharpest central vision occurs. The nutrients in MacularProtect reflect the findings of the Age-Related Eye Disease Study (AREDS), advanced research on lutein's role in eye health, as well as new evidence of the protective role of B-vitamins.

### MacularProtect Highlights

- ▶ Scientific nutritional formulation for individuals concerned about preserving macular health
- ▶ Contains blend of antioxidants and zinc at levels found to support eye health in the AREDS clinical trial
- ▶ Contains 10 mg of FloraGLO<sup>®</sup> lutein and 1mg of zeaxanthin, consistent with the latest scientific findings
- ▶ **New!** Now with B vitamins for greater macular health protection
- ▶ Delivers broad spectrum of natural source vitamin E, from alpha to gamma tocopherol
- ▶ Made from premium ingredients and manufactured according to the highest quality standards
- ▶ Effective stand-alone formulation for macular health

### 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>.

### Rationale for Inclusion of Key Ingredients

#### Beta-Carotene (15 mg, 25,000 IU)

Beta-carotene functions primarily as a fat-soluble antioxidant. It can also be

converted to vitamin A as needed but only in limited and safe amounts. 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 the normal function of various eye structures such as the photoreceptors of the retina. The formula provides 15 mg of beta-carotene in the same form and potency as that used in the AREDS clinical trial.

#### 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 ultraviolet light. Oxidative damage to the retina is believed to be a risk factor for macular degeneration<sup>2</sup>. Vitamin C also aids in the recycling of other antioxidants such as vitamin E. MacularProtect supplies the form and level of vitamin C used in the AREDS clinical trial, 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 through its free radical-scavenging activity. MacularProtect provides the natural source rather than the synthetic form of vitamin E, as studies demonstrate that this form offers superior bioavailability and is better retained in tissues<sup>3,4,5</sup>. It also delivers broad spectrum vitamin E from alpha to gamma

tocopherol, that together play a health-protective role<sup>6,7</sup>. MacularProtect 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>8</sup>. MacularProtect provides 80 mg of zinc in the form and amount administered in the AREDS clinical trial.

#### Copper (2 mg)

Copper is a mineral that is necessary for normal development of 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 to help ensure an adequate level of this essential mineral in the body. The amount of supplemental copper in MacularProtect represents 100% of the Daily Value and is the form and amount used in the AREDS clinical trial.

#### Lutein, FloraGLO<sup>®</sup> (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>9</sup>. As part of the macular pigment,





MacularProtect is a scientific nutritional formulation to help preserve macular health. MacularProtect is based on the latest research supported by the National Eye Institute and other advanced science.

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

**Note:** Pregnant or lactating women or individuals with medical conditions should consult a physician before using. **Smokers should consult their eye care professional about the risks associated with smoking and using beta-carotene.**

MacularProtect Complete 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 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 2 capsules  
Servings Per Container 30

	Amount Per Serving	% Daily Value
Vitamin A (from 15 mg of beta-carotene)	25,000 IU	500%
Vitamin C (as ascorbic acid)	750 mg	1,250%
Vitamin E (as d-alpha tocopheryl succinate and mixed tocopherols)	400 IU	1,333%
Vitamin B6 (from pyridoxine hydrochloride)	20 mg	1,000%
Folate (50% from folic acid, 50% from calcium folinate)	200 mcg	50%
Vitamin B12 (as cyanocobalamin)	100 mcg	1,667%
Zinc (from zinc oxide)	80 mg	533%
Copper (from copper oxide)	2 mg	100%
Lutein (FloraGLO®)	10 mg	†
Zeaxanthin	1 mg	†

† Daily Value not established.

**Other Ingredients:** Gelatin, Water, Silica and Magnesium Stearate.



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## Lutein and Zeaxanthin (continued)

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>10-12</sup>. Several intervention studies also indicate that consumption of these carotenoids can favorably modify the pigment density of the macula<sup>13,14</sup>. The amount of lutein supplied by MacularProtect is consistent with that administered in a one-year clinical trial that reported improvements in visual performance<sup>14</sup>. The balanced ratio of zeaxanthin to lutein within this formula reflects natural dietary levels<sup>15</sup>.

## Folic Acid, Vitamin B6 and Vitamin B12

B-vitamins, according to research, can reduce artery-damaging levels of homocysteine in the body, thus helping to retain normal cardiovascular function<sup>16</sup>. MacularProtect 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>17</sup>.

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