OcularProtect is a robust multinutrient with over 40 key nutrients, including phytonutrients and amino acids designed to help maintain ocular and whole body health. OcularProtect is antioxidant-rich to help counter oxidative stress, a factor implicated in the process of biological aging.

OcularProtect Highlights

- Offers full spectrum antioxidants: high potency vitamins C and E, alpha lipoic acid, taurine, lycopene and a diverse array of beneficial plant-based compounds

- Now contains 10 mg of FloraGLO® lutein and 2 mg of zeaxanthin, reflecting the latest scientific findings for ocular health

- Features potent cell-protecting ingredients: trans-resveratrol, green tea extract and OptiBerry® Mixed Berry Blend

- Delivers highly bioavailable nutrient sources and standardized plant extracts for consistent delivery of active compounds

- Manufactured in NSF®-certified facilities from finest quality, bioavailable ingredients

Optimal Nutrition For Healthy Aging

Most Americans over-consume fat and sugar, while failing to meet recommendations for dark green and orange vegetables, and whole grains – sources of key antioxidant nutrients, lutein and essential minerals. The 2015 Dietary Guidelines Advisory Committee has also identified 9 under-consumed vitamins and minerals. Most experts agree even conscientious consumers find it difficult to get needed nutrients from food alone, and supplements can help fill gaps.

Beyond preventing marginal intakes, supplements are pivotal for optimal health and quality of life. Studies show that healthy older individuals who regularly take multivitamins have reduced mortality risk from cardiovascular disease and better odds of maintaining health. Long-term ‘multi’ use is linked with a protective role in ocular lens health, and research suggests folate, B6 and B12 can reduce AMD risk in women.

Value of Antioxidants, Polyphenols

Free radicals are highly reactive compounds produced through the body’s use of oxygen, and generated by outside sources such as UV light. Oxidative damage over time contributes to the gradual, age-related clouding of the eye’s lens and degeneration of the macula. As integral components of the body’s defense system, antioxidants help neutralize free radicals and defend cellular structures.

Flavonoids and other polyphenols from plant-based foods are the most abundant dietary antioxidants, and are considered key to health benefits of the Mediterranean diet. Diets low in polyphenols are linked to greater cognitive decline, while consuming at least 650 mg daily is associated with decreased mortality in older adults. The polyphenols in OcularProtect (~270 mg daily) make a meaningful addition to overall intake.

Rationale for Key Ingredients

**Vitamins C (400 mg) E (200 IU) and D (800 IU)**

Vitamin C is the major water-soluble antioxidant concentrated in ocular tissues. Levels in the lens are up to 60 times those in blood. Fat-soluble vitamin E is the major antioxidant protecting lipid-rich retinal cell membranes against free radical attack. Evidence suggests long-term vitamin C supplementation may lower odds of developing age-related clouding of the central lens. OcularProtect provides vitamin C at levels consistent with these findings. Recent research has focused on vitamin E’s vital role in cell membrane repair – especially in muscle cells routinely damaged through everyday use. OcularProtect provides a better-absorbed and retained natural source of vitamin E at a safe and appropriate level.

A decade of research suggests low vitamin D blood levels may contribute to a spectrum of conditions like osteoporosis, some cancers, cardiovascular disease and diabetes. Higher blood levels are also linked with lower AMD risk, possibly by reducing inflammation at the interface of the retina’s blood supply (choroid) and pigment-containing (RPE) cells during early disease stages. Many experts advise supplementing to help achieve vitamin D levels linked to better health, and OcularProtect provides a robust and safe amount.

**FloraGLO® Lutein (10 mg) and Zeaxanthin (2 mg)**

Lutein and zeaxanthin (L/Z) compose the macular pigment, the central retinal area where the sharpest central vision occurs. Macular pigment filters out blue (visible) light that can cause photo-oxidative damage. They are also the only carotenoids detected in the eye’s lens.

Recent studies suggest that optimizing macular pigment density with supplemental L/Z supports measures of functional vision in those with early AMD, including retinal sensitivity and contrast sensitivity – especially important in low light, fog or glare conditions when contrast is reduced. Some studies also link higher intake with lower risk of developing early AMD in those at high genetic risk. OcularProtect provides levels consistent with these findings, and in a balanced ratio reflecting dietary intake.

**Zinc (25 mg)**

Zinc is an essential mineral selectively concentrated in the eye, and found in the retina and choroid, ciliary body, iris, optic nerve, sclera, cornea and lens. Within these structures, zinc is believed to interact with vitamin A and taurine to modify photoreceptor membranes, regulate the rhodopsin reaction, help nerve transmission and to serve as an antioxidant. Inadequate intake affects immune function and increases production of pro-inflammatory factors (cytokines). OcularProtect provides bioavailable zinc at about ½ the dose used in AREDS, prudent for eye-healthy individuals.

**More Eye-Essential, Health-Promoting Ingredients:**

**Vitamin A** is provided both as pre-formed vitamin A (retinyl palmitate) and beta-carotene, which functions as an antioxidant and is converted to vitamin A as needed. Vitamin A protects night vision and is vital for the eye’s cornea. It also interacts with zinc and the amino acid taurine in retinal photoreceptors.

**Selenium** is required by glutathione peroxidase, an antioxidant enzyme found in the lens and localized in photoreceptor and RPE cells. As part of glutathione peroxidase,
selenium also aids vitamin E in limiting oxidative damage to lipids.

N-Acetylcysteine provides the major building block for glutathione peroxidase, enabling the body to produce its own supply, since this enzyme is poorly absorbed from food.

Taurine is selectively concentrated in eye tissues, where it is a major component of the aqueous humor and vitreous. It helps stabilize retinal cell membranes and may act as an antioxidant in the lens.

Alpha Lipoic Acid is a fat- and water-soluble antioxidant that can scavenge free radicals and help recharge other antioxidants such as glutathione and vitamin C. Experimentally, it protects against oxidative stress in the eye’s photoreceptors.

Lycopene is the antioxidant pigment that gives tomatoes their vivid color. Studies suggest a potential cardio-protective role for lycopene, though more research is needed. OcularProtect provides 2 mg, increasing typical dietary intakes by 40%.

Green Tea Extract delivers the unique polyphenols found in 1 cup of tea. Absorption of green tea polyphenols and their antioxidant activity in blood is enhanced when taken in capsules versus drinking the beverage. Regular intake of green tea may help repair genetic material (DNA).

Trans-Resveratrol, found in grape skins, blueberries and red wine, is naturally produced by some plants in response to injury. Researchers are investigating whether trans-resveratrol also activates a protective stress response in human cells.

OptiBerry® Mixed Berry Blend is a rich source of healthful anthocyanins, and is equivalent to consuming ½ cup of berries daily. This unique blend of 6 different berries scored highest among many berry combinations tested for antioxidant capacity and ability to thwart the unwanted vessel growth (angiogenesis).

And More ... Additional flavonoids – important health-supporting components of fruits and vegetables – are provided from a wide variety of sources: bilberry, citrus, grape seed, ginkgo, pomegranate and quercetin found in apples and onions. As antioxidants, they support healthy retinal circulation and ocular health.

**References**