



Maintains Healthy Visual Function With Lutein

It has been well established that lutein is present in high concentrations in the retinal tissue of the human eye. However, a study was conducted in human volunteers to determine whether taking lutein in supplement form actually increased the density of the carotenoid pigments present in the macula. In this study of eight individuals, researchers estimated the density of the macular pigments prior to having each individual take 10 mg of lutein daily in supplement form for 12 weeks. Plasma lutein concentrations were measured at 4-week intervals. During the first four weeks of the study, plasma levels increased five-fold from pre-supplement measures, and then remained at this level for the duration of the study. It was also shown that, due to increased deposition of lutein in optical tissues, macular pigment density increased by an average of 5.3% at the 4-week mark, and continued to increase until the duration of the study.¹

A study was also conducted to investigate the possible role of specific nutrients in protecting the lens of the eye against aging, a risk factor for compromised visual function. The study was comprised of 376 individuals aged from 18 to 75. Of the nutrients measured, it was found that the lenses of individuals with higher concentrations of lutein and zeaxanthin showed less of an effect from the aging process. The investigators concluded that these carotenoids might play a protective role in supporting the maintenance of healthy vision.²

The Age-Related Eye Disease Study (AREDS) was a landmark study of the effects of diet and antioxidant supplementation on eye health. The study enrolled over 3500 subjects aged 55 to 80 years who were followed for approximately 6 years. Among the data collected in this multi-faceted study was a self-administered Food Frequency Questionnaire (FFQ). The AREDS Report No. 22 examined the data from the FFQs and determined that, of the nutrients evaluated, only lutein and zeaxanthin were directly related to maintaining eye health with statistical significance³. These findings corroborated similar results of an earlier multi-center study published in the Journal of the American Medical Association that also found that those with a higher intake of lutein and zeaxanthin maintained healthier eye function.⁴ These promising results have spurred the design of a second major clinical trial (AREDS2), which is currently enrolling participants to study the impact of supplemental xanthophylls (FloraGLO® Lutein and zeaxanthin) and other nutrients on age-related eye health.⁵

In addition, a double-blind placebo controlled trial was performed in ninety individuals who had signs of compromised visual function. Individuals were divided into three groups and received either 10 mg FloraGLO® lutein, 10 mg FloraGLO® lutein plus a multivitamin/multimineral formulation, or placebo for 12 months. In both the



FloraGLO® lutein and FloraGLO® lutein plus other nutrients groups, improvements were seen in mean eye macular pigment optical density, visual acuity and contrast sensitivity. No improvements were noted in the placebo group.⁶ These results demonstrate FloraGLO® lutein's beneficial effect on maintaining healthy visual function.

Newly published research has demonstrated that lutein and zeaxanthin supplementation may enhance visual performance under glare conditions. Forty healthy subjects took daily doses of 10 mg FloraGLO® Lutein plus 2 mg zeaxanthin for six months. They were evaluated for changes in macular pigment, glare disability and photostress recovery at the onset of the study, and at 1, 2, 4 and six months. After six months, subjects experienced an average increase in macular pigment optical density (MPOD) of 39% compared to baseline, and all but two participants experienced some increase in MPOD. This increase in MPOD was also directly related to measured improvements in visual performance after exposure to bright light, as well as photostress recovery.⁷ This study suggests another way in which lutein and zeaxanthin can help support optimal visual function in healthy individuals.

Potent Antioxidant Protection*

Most of the beneficial effects of lutein are ascribed to its potent free radical scavenging abilities. It is well-known that lutein is a carotenoid related to beta-carotene and possesses antioxidant activity against a number of reactive oxygen species.⁸

More direct evidence for the free radical scavenging activity of lutein is found in studies of its effects on human lens epithelial cells. Cell cultures were exposed to ultraviolet light after pretreatment with lutein or alpha-tocopherol. Both nutrients were found to reduce ultraviolet-induced damage to lens epithelial cells. However, lutein was shown to have significantly higher photoprotective activity than alpha-tocopherol⁹ demonstrating its potential as a high-powered antioxidant.

A further review of the mechanisms of lutein in conferring a protective role reveals evidence for its antioxidant activity in various body tissues. Lutein has been shown to be an effective antioxidant in vitro as well as in experimental models of a number of body systems.¹⁰

Supports Healthy Skin*

A recent randomized, double blind, placebo-controlled study has demonstrated the positive effects of oral and topical administration of lutein on skin health parameters (surface lipids, hydration, photoprotective activity, skin elasticity and skin lipid peroxidation). Forty female subjects were divided into four treatment groups. Treatment options included oral administration of 5 mg of FloraGLO® Lutein twice daily or



placebo and topical administration of 50 ppm FloraGLO® Lutein twice daily or placebo. Each treatment group received either an active oral treatment with a placebo topical treatment, a placebo oral treatment with an active topical treatment, both active treatments, or both placebo treatments. Statistically significant improvements were seen in all five parameters tested in all treatment groups compared to the group receiving only placebos. The greatest overall improvements were seen in the group receiving both active oral and topical treatments, while lesser but still significant improvement was seen in both the active oral only and the active topical only groups. Additionally, oral administration of lutein conferred superior photoprotective activity (as measured by skin surface redness after exposure to ultraviolet light) and prevention of lipid peroxidation (as indicated by levels of malondialdehyde in skin lipids after exposure to ultraviolet light) than either topical lutein or placebo.¹¹

Diverse Clinical Benefits*

Evidence from various experimental trials suggests that lutein may play a protective role on the circulatory and cardiovascular systems. Its antioxidant activity may also extend to the heart, skin, lungs and blood vessels, making it a nutrient with diverse clinical benefits. Lutein possesses the ability to promote the health of many body tissues.¹²

Suggested Adult Use: One softgel daily with food, or as directed by a health care professional.

Does Not Contain: milk, egg, wheat, sugar, sweeteners, starch, salt, or preservatives.

Scientific References

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