Macular pigment optical density (MPOD) is a measure of retinal concentrations of lutein and zeaxanthin, two antioxidants acquired from the diet. Docosahexanoic acid (DHA) is an omega-3 fatty acid found in the retina of the eye. New research shows that supplementing with lutein and DHA may help reduce the risk of age-related macular degeneration (AMD) by increasing MPOD.

Supplemental lutein and DHA may help prevent macular degeneration

In a study recently conducted at Tufts University in Boston, researchers randomly assigned 49 women (between 60 and 80 years old) to one of four groups: placebo, DHA (800 mg/d), lutein (12 mg/d), or a combination lutein + DHA supplement. The objective of this four month study was to determine the effects of lutein and DHA on the women's serum concentrations and macular pigment optical density (MPOD).

In all supplement groups, blood nutrient levels were higher at two and four months than at the beginning of the study. DHA supplementation resulted in central increases of macular pigment density, while lutein was associated with eccentric, or away from the center, increases.

Supplementing lutein and DHA may help reduce the risk of age-related macular degeneration by increasing MPOD, helping protect the macula from oxidative damage, and increasing lutein transport into the macula.

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