

Evidence for protection against age-related macular degeneration by carotenoids and antioxidant vitamins.

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Epidemiologic data indicate that individuals with low plasma concentrations of carotenoids and antioxidant vitamins and those who smoke cigarettes are at increased risk for age-related macular degeneration (AMD). Laboratory data show that carotenoids and antioxidant vitamins help to protect the retina from oxidative damage initiated in part by absorption of light. Primate retinas accumulate two carotenoids, lutein and zeaxanthin, as the macular pigment, which is most dense at the center of the fovea and declines rapidly in more peripheral regions. The retina also distributes alpha-tocopherol (vitamin E) in a nonuniform spatial pattern. The region of monkey retinas where carotenoids and vitamin E are both low corresponds with a locus where early signs of AMD often appear in humans. The combination of evidence suggests that carotenoids and antioxidant vitamins may help to retard some of the destructive processes in the retina and the retinal pigment epithelium that lead to age-related degeneration of the macula.

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I dati epidemiologici indicano che individui con basse concentrazioni plasmatiche di carotenoidi e vitamine antiossidanti ed i fumatori hanno un rischio maggiore di degenerazione della macula senile.

I dati suggeriscono inoltre che i carotenoidi e le vitamine antiossidanti possono aiutare a ritardare alcuni dei processi distruttivi che colpiscono la retina ed il pigmento epiteliale della retina che portano alla degenerazione della macula senile.