

## **Lutein zeaxanthin good for healthy eyes**

3/5/2008 By Stephen Daniells

**Supplementation with the carotenoids lutein and zeaxanthin could boost retinal health in the eyes, and have benefits for people with seemingly healthy eyes, says a new study.**

The human macular pigments (MPs), lutein (L) and zeaxanthin (Z), most commonly linked to protection from age-related macular degeneration (AMD), were found to reduce the deleterious effects of glare on a test group of people with normal eyesight, report researchers in the journal *Optometry and Vision Science*.

The study adds to an ever-growing body of science supporting the role of lutein and zeaxanthin for eye health, with the majority supporting their role against AMD, the leading cause of legal blindness for people over 55 years of age in the Western world, according to AMD Alliance International.

James Stringham and Billy Hammond from the Vision Science Laboratory at the University of Georgia, Athens (USA), recruited 40 healthy subjects with an average age of 23.9 and assigned them to receive daily supplements of lutein (10 mg, FloraGlo, Kemin and now sold by DSM) and zeaxanthin (2 mg, OptiSharp, DSM) for six months.

The researchers looked at the effects of glare - as experienced in many everyday situations, from being outdoors on bright, sunny days, to lengthy periods looking at computer monitors, and nighttime exposure to the intense beam of oncoming headlights - on the subjects' eyes.

Stringham and Hammond report that the macular pigment optical density (MPOD) of the eyes had increased from an average value of 0.41 at the start of the study, to 0.57 after six months of supplementation. MPOD is a measure of the eye's ability to filter short-wave light.

When the volunteers were tested for their performance in visual tasks following glare, the supplements of lutein and zeaxanthin were found to significantly reduce the deleterious effects of the exposure.

*"Four to six months of 12 mg daily lutein and zeaxanthin supplementation significantly increases MPOD and improves visual performance in glare for most subjects,"* stated the researchers.

*"If macular pigment (MP) does improve some aspects of vision as a direct function of increases in MP, then supplementing lutein and zeaxanthin could, indeed, be palliative,"* they continued.

*"Because many elderly and AMD patients suffer disability due to glare, further study of whether lutein and zeaxanthin supplementation could reduce these problems is warranted,"* they concluded.

### **Beyond AMD**

Earlier this year, researchers from Brigham and Women's Hospital and Harvard Medical School reported that a higher intake of the carotenoids, as well as vitamin E, could reduce the risk of developing cataracts by about 15 per cent.

Over 35,000 women took part in the study, which showed that a high intake of the two

carotenoids reduced the risk of cataracts by 18 per cent, while vitamin E was associated with a 14 per cent reduction, reports the study in the *Archives of Ophthalmology* (Jan. 2008, Vol. 126, pp. 102-109).

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*"Macular Pigment and Visual Performance Under Glare Conditions"*

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