Macular Pigment and Meso-Zeaxanthin

What is macular pigment?
Macular pigment is a yellow pigment at the back of your eye which is obtained from your diet

What foods contain macular pigment?
Lutein and zeaxanthin, two of the three components of the macular pigment, can be found in a variety of fruits and vegetables (e.g spinach, corn, peppers and most leafy greens). *Meso*-zeaxanthin, the third component of the macular pigment, is found in slightly unusual foods (such as salmon and shrimp). However, lutein can also be converted into *meso*-zeaxanthin at the back of the eye.

What does macular pigment do in the eye?
Macular pigment helps protect the retina (back of the eye) from free-radical damage caused by light and oxygen.

Why is reducing free radical damage important?
Protecting against free-radical damage is important as free-radical damage is believed to cause age-related macular degeneration (AMD).

Do we get enough macular pigment from our diets?
On average we consume only between 1 to 1.3mg/day of lutein and zeaxanthin from our diets, considerably less than the amount needed to protect against free radical and light damage. *Meso*-zeaxanthin is not found in a typically diet.

How much macular pigment is enough?
The components of the macular pigment, lutein, zeaxanthin and meso-zeaxanthin, do not have an established recommended daily allowance (RDA), but doses up to 30 milligrams per day are generally considered safe and effective.

What happens if you take Macushield™?
Research has shown that if you take Meso-zeaxanthin , you will significantly increase your macular pigment levels, especially at the center of your retina where it is believed to be most important.

Who should take Meso-zeaxanthin?
The people who should take Meso-zeaxanthin are individuals who are at risk of developing AMD, and have low macular pigment levels. Research has shown that such individuals include people with a family history of AMD, people who smoke cigarettes, people with poor diets lacking in fruits and vegetables, people who are obese. It is important to note that you can have low macular pigment levels at any age (e.g. 20 years upwards).

Why is *meso*-zeaxanthin important?

The importance of *meso*-zeaxanthin for visual health is reflected in the fact that lutein is converted to *meso*-zeaxanthin in the retina only, and also because *meso*-zeaxanthin is only found at the center of the retina, where vision is sharpest. Also, *meso*-zeaxanthin is a more powerful neutralizer of free radicals than either lutein or zeaxanthin. Furthermore, the presence of *meso*-zeaxanthin results in the filtration of a wider range of damaging blue light. Moreover, *meso*-zeaxanthin is more closely related to vulnerable photoreceptors in the eye than either lutein or zeaxanthin, and is therefore ideally located to afford protection against free radical damage of these important cells of vision. And finally, and most importantly, supplementation with *meso*-zeaxanthin will ensure that this component of the macular pigment accumulates at the target tissue (i.e. the central retina) in a way that is not dependent on an enzyme to convert lutein to meso-zeaxanthin. Indeed, it is believed that such an enzyme may be lacking in some individuals.

How long does it take to rebuild your macular pigment levels after taking Meso-zeaxanthin ?

This differs between individuals, but it generally takes up to three months to rebuild the macular pigment. It is important to note that the macular pigment levels will remain increased for up to six weeks after supplementation, but will fall back down after this time once supplementation is stopped. Therefore it is important to routinely have your macular pigment levels checked.