

# Clinical Insights

## Patented Supplements for eye health & AMD

Researched by Prof. John Nolan who has spent over 25 years researching carotenoids at the Nutrition Research Centre Ireland. This product range is exclusively distributed by The Body Doctor Ltd.

Macular disease is the biggest cause of sight loss in the UK with age-related macular degeneration (AMD) affecting around 700,000 people\*. The macula is a small, light-sensitive area at the centre of the retina and is responsible for over 90% of vision.

The macular pigment gives the macula its yellow colour and is where the three carotenoids (meso-zeaxanthin, zeaxanthin and lutein) are concentrated, where they protect the retina from light and oxygen damage.

As patients age, the macular pigment decreases, reducing the protection the retina has from oxidative stress and harmful blue light.

We are delighted to be the UK's exclusive distributors of MacuPrime – a daily supplement designed and proven to increase the density of macular pigment and support normal vision.

## MacuPrime for AMD

A high-quality triple carotenoid food supplement containing lutein (10mg), meso-zeaxanthin (10mg) and zeaxanthin (2mg), MacuPrime has been tested in research by Nutrition Research Centre Ireland, at South East Technological University (SETU). It is the first carotenoid supplement in Europe to be approved by the stringent Supplement Certified testing program. This means not only do we know it is an effective supplement but it is also effective and stable over its shelf life.

Research from SETU has shown that MacuPrime successfully nourishes the protective macular pigment and improves a patient's visual function by improving contrast sensitivity and reducing glare disability.



## Q&A

with Prof John Nolan

Nutrition Research Centre Ireland

### Is AMD on the rise and why?

Yes, AMD is on the rise globally and now affects one in eight people 60 years of age or older. AMD remains the most common cause of irreversible blindness in older persons in developed countries. 200 million people worldwide are estimated to have AMD, and by 2040, this number is projected to rise to close to 300 million. Nutrition devolution (the decrease in concentration of nutrients in the food we eat), bad lifestyle, and the ageing population are the main reasons for the rise in cases of AMD.

### What is the link between macular pigment and AMD?

As shown by our research, the established risk factors for AMD: age, family history of disease (genetics), and cigarette smoking are associated with a lack of (deficiency) of macular pigment. Macular pigment is the yellow pigment at the back of the eye (at the macula) that protects this light sensitive tissue. Therefore, people with low levels of macular pigment have a greater risk of developing AMD because they have limited protection against light and oxygen damage at the macula. In other words, the tissue that is responsible for vision gets sick or damaged earlier in life if a person is lacking in macular pigment.

### Why is a triple carotenoid formulation so important?

A triple carotenoid comprising lutein, zeaxanthin and meso-zeaxanthin is essential if we want to enrich/improve all parts of the protective macular pigment. There are 3 parts to this protective nutritional jigsaw. Also, the central part of the protective macular pigment is Meso-zeaxanthin and this carotenoid is lacking in people at highest risk of AMD. Therefore, providing a supplement with only 2 of the 3 carotenoids will result with suboptimal outcomes and a dip in central macular pigment in patients that are lacking in meso-zeaxanthin.



### What clinical results has MacuPrime and MacuPrime Plus demonstrated?

As shown by the MOST<sup>1</sup> and CREST<sup>2,3</sup> trials, we now know that that these supplements give optimal results to:

1. Improve macular pigment volume
2. Enrich central macular pigment
3. Enhance visual performance in the general population
4. Enhance visual performance in patients with early AMD
5. Enhance cognitive function (brain function)

### What is Supplement Certified and why is it so important?

Supplement Certified is a 3rd party independent analysis of a supplement assessing the concentration and stability of the active ingredients of the supplement over its shelf life. This is crucially important for carotenoid supplements because if they are not formulated correctly they will degrade in the supplement. It is known that circa 70% of commercially available carotenoid supplements do not meet their label claim, meaning that patients will not get the benefits of taking the supplement. Supplement Certified approval is essential to provide this confidence of quality for the supplement.

1. Macular carotenoid supplementation in subjects with atypical spatial profiles of macular pigment. Nolan, et al Experimental Eye Research, 2012. 2. Enrichment of Macular Pigment Enhances Contrast Sensitivity in Subjects Free of Retina Disease: Central Retinal Enrichment Supplementation Trials – Report 1, Nolan et al, IOVS, 2016. 3. The Impact of Supplemental Antioxidants on Visual Function in Nonadvanced Age-Related Macular Degeneration: A Head-to-Head Randomized Clinical Trial\* Akuffo, et al IOVS, 2017. Food supplements should not be used as a substitute for a healthy and balanced diet. Zinc supports the maintenance of normal vision.

\*references available on request