

# OVER 30?

Age-related Macular Degeneration  
THE LEADING CAUSE OF BLINDNESS

An opportunity to remove a major risk factor of going blind. The MacuScope is a new test to measure macular pigment density

MacuScope

THE WORLD'S FIRST  
SCREENER FOR AMD



TAKE A TEST

[www.eyecare-plus.co.uk](http://www.eyecare-plus.co.uk)

IF YOUR MACULAR PIGMENT IS LOW IT CAN BE RE-BUILT

## New technology to combat leading cause of blindness

Waterford was chosen because of ground-breaking research being carried out at Waterford Institute of Technology as the location for the world launch of new technology which could lead to the early detection of the leading cause of blindness which affects over 30 million people worldwide.

Mr Stephen Beatty, Consultant Ophthalmic Surgeon at Waterford Regional Hospital and Dr. John Nolan, BSc, PhD, director and assistant director respectively of the Macular Pigment Research Group at WIT, were guest speakers at the launch where a new product, 'MacuScopeTM', which allows optometrists to detect and measure a protective pigment in the eye, was revealed. People with low levels of this pigment are believed to be at increased risk of developing a condition known as age-related macular degeneration (AMD).

Optometrists from Ireland attended the launch, where a new patented supplement 'MacuShieldTM', a formulation of nutrients that help to maintain normal eye-function and protect against AMD, was also showcased.

Dr Nolan, whose PhD study on preventative measures for AMD 'Determinants of Macular Pigment in Healthy Subjects' was the largest cross-sectional study of its type in the world, said: "The centre of the retina, known as the macula, is responsible for central vision. As we get older, blue light and free radicals damage central vision, and can cause the commonest cause of blindness in the western world, a condition known as AMD. People with AMD lose the ability to read, recognise faces, watch television and drive, and therefore lose their independence.

"Only some cases of visually consequential AMD can be treated," said Mr Beatty. "Furthermore, all treatments are costly, and often inappropriate for sufferers of AMD who are elderly, and tend to be infirm. As the incidence of AMD increases exponentially with age, and because the elderly section of the population becomes an ever increasing proportion of the overall population, prevention or even delay of its onset would profoundly reduce its prevalence, with consequential benefits in terms of reduced suffering and a reduced burden on healthcare providers," said Mr Beatty.

Further information on the Macular Pigment Research Group at WIT: [www.wit.ie/mprg](http://www.wit.ie/mprg)

Warning : Only the European version of MacuShield contains the helpful MZ supplement.

From May 2007, for the first time in Scotland, we are introducing the MacuScope test for the over 30s. The MacuScope is the first commercially available device that can measure and monitor macular pigment density. By investing in this new technology, patients will be able to remove one of the major risk factors of developing Age-Related Macular Degeneration (AMD), the number one cause of untreatable blindness in the UK.

There is now compelling evidence that people with low pigment levels are at risk later in life. It has been advised that people have their macula pigment levels checked from the age of 30 years onwards because macular pigment depletes with age and any protection that macular pigment may provide against AMD will need to be exerted throughout the middle years of life.

Dr. Richard Bone and Dr. John Landrum, professors of the Departments of Physics and Biochemistry respectively, at Florida International University in Miami USA, have been investigating the macular pigment and its involvement with AMD for over two decades. Bone and Landrum have demonstrated that the macular pigment is composed of the three carotenoids; Lutein (L), Zeaxanthin (Z), and Meso-Zeaxanthin (MZ). These carotenoids protect the macula because of their antioxidant and light filtering properties.

Unlike L which is present in spinach and other green vegetables, and Z which is the yellow pigment found in corn, MZ is not found in common food sources.

If all people had to do was consume adequate L & Z, then AMD would theoretically disappear as an age-related disorder. Regrettably, AMD still occurs in ageing individuals, even in some of those who regularly eat spinach.

Research now suggests that MZ may be more important than L in protecting against macular degeneration. MZ is found only in the central macula where vision is sharpest and normally comprises 25% of the total macula pigment. Bone and Landrum conducted autopsy research on donor eyes with AMD and found MZ to be the most depleted of the three macular carotenoids.

Their findings have revealed the critical importance of L being converted to MZ in the retina in order to maintain the density of the macular pigment. It is now thought that some individuals may lack the converting enzyme.

Exciting research, ongoing at the Macular Pigment Research Centre, in Waterford, Ireland, the largest research centre in Europe, shows that since MZ has been introduced into a dietary supplement, people have re-pigmented by up to 40% in 140 days.

Scientists now believe that people who have a high intake of L and Z (from either diet or dietary supplements) plus take supplemental MZ will have a very low incidence of AMD.

The MacuScope measures macular pigment in a simple, safe, none invasive and painless way. It only takes a few minutes to perform and may save you the misery of losing your sight.

We at Eyecare-Plus have always invested in the best available technology and used it for our patients. Good preventative care costs, both in time and money but eyesight is priceless. We think that the MacuScope greatly enhances the level of care we can offer you and that is why we would encourage you to take advantage of the improvement in technology.

The cost of the MacuScope test is £25 alone and when part of your regular eye care £20.

