

Summary of Dr Paul Beaumont's Address

Subject: “Macular Degeneration: A recent epidemic and a lesson in nutritional epidemiology”.

How often are we confronted with questioning statements such as “Do you see what I mean?” and “Can you see what I’m driving at?” What on earth eyesight has to do with understanding an oral message I don’t know, but what I do know is that my understanding of eyesight and its problems has increased significantly thanks to Dr Beaumont.

As outlined by Frank Barr-David in his introduction, Paul was the first Australian ophthalmologist to specialise full time in medical retinal disease. Having trained under the late Prof Fred Hollows, he has been involved in patient care, teaching and research for the past 30 years with a special interest in diabetic retinopathy, retinal venous occlusion and macular degeneration. Currently Chairman of the Eye and Vision Research Institute and on the editorial board of journals “Clinical Experimental Ophthalmology” and “Graefe’s Archive for Clinical and Experimental Ophthalmology”, he has frequently addressed international meetings and published over 60 articles in peer reviewed journals. Paul’s excellent video support provided the appropriate means of translating a somewhat complex subject into an understandable format for those of us not so medically enlightened. As a broad summation, he highlighted what macular degeneration is, how prevalent it is, how to detect it, how to minimise its onset and what treatment is available.

Similar to a camera, an image is focused by the lens at the front of the eye on to the retina at the back of the eye, and from there via the optic nerve to be interpreted by the brain. The macula is a spot at the centre of the retina, responsible for detailed central vision. You are using it to read this summary. The peripheral retina enables us to see general shapes and the peripheral environment.

Macular Degeneration (MD) covers a group of degenerative diseases of the retina, causing painless progressive loss of vision, particularly affecting ability to see fine detail, read, drive and recognise faces. MD causes 58% of all blindness.

There is no cure, but there are treatments that can slow progression and early detection is critical to effective treatment. MD begins in the Retinal Pigment Epithelium (RPE), a layer of cells under the retina responsible for passing oxygen, sugar and other essentials **to** the retina and also disposing of waste products **from** the retina to the choroid – blood vessels under the retina. MD occurs when this waste disposal breaks down and the waste products called drusen build up – easily detectable as yellow spots by eye care professionals.

The 2 forms of MD are known as “Dry” and “Wet”. In Dry MD, when the RPE cells die, the retinal cells immediately above them also die causing gradual loss of vision. In Wet MD, the RPE cells fail to stop the choroidal blood vessels growing into the retina where they grow wildly, leaking fluid and blood into the retina causing scarring and rapid loss of vision within a short time.

So what are the causes? The 3 main factors are genetic, age related and environmental. Paul outlined a range of research projects occurring world wide such as the Blue Mountains Eye Study (BMES) and Rotterdam Study which are providing significant outcomes relative to causes and treatments.

Symptoms to alert you:

Difficulty in reading or other activity requiring fine vision
Distortion where straight lines appear wavy or bent
Distinguishing faces becoming a problem
Dark patches or empty spaces appearing in your vision.

So what preventative steps can we take?

We are what we eat, so adhere to a healthy diet

Don't smoke

Exercise regularly

Maintain appropriate weight level

Control blood pressure

Avoid sunlight on eyes – wear sunglasses and a hat

Results from research – what should our diet include?

Dark green vegetables, spinach in particular is very beneficial

Fish – 3 times per week

Fruit and nuts

Olive oil and fruit oil

In consultation with your doctor, consider anti-oxidant and zinc supplements

What we won't hear, due to vested interests, is the importance of reducing fat intake, particularly vegetable oil such as that used in margarine.

What are the treatments available?

As mentioned above, there are no known cures; however there are a variety of treatments resulting in slowing and stabilising the onset. These mainly involve a range of drug and laser treatments, some of which are still in the experimental stage. Paul gave a couple of tips – carrots don't improve eyesight, and you can't hurt your eyes by using them, or by reading in poor light. If you appear to have any symptoms, do not delay professional consultation.

For those wanting more information, he provided the MD Foundation web site – www.mdfoundation.com.au.

Lindsay Thompson's vote of thanks for Paul's excellent and topical presentation was not only supported enthusiastically by all present but also by an excellent sample of anti-oxidant.