

The Partially Sighted Society



Information Sheet

Macular Degeneration and Vitamins – Do they Help??

There has been much written in the media recently about the use of vitamin supplements in conjunction with age related macular degeneration (ARMD) In this article we will attempt to clarify some of this information, and give a balanced view on the use of vitamin supplements.

Age related macular degeneration is one of the leading causes of visual impairment in the over 55 year age group. Macular degeneration affects the central, detailed vision, leading to difficulties with tasks such as reading, writing and recognising faces. The peripheral vision usually remains intact, enabling 'side viewing' in most cases. This condition does not cause blindness. Unfortunately, at this time there is no completely successful treatment for macular degeneration. Argon Laser photocoagulation treatment remains suitable in only 10-15% of patients with wet ARMD. It aims to discourage further deterioration rather than restore visual acuity already lost. There is no standard treatment available for dry ARMD.

Research is ongoing into the causes and risk factors in developing ARMD. At this time it is thought that smoking, sun exposure, high blood pressure and high cholesterol may increase the risk of ARMD.

Put very simply, certain areas of research have shown that these factors may produce 'free radicals'.

Free radicals are molecules, which are believed to harm healthy body cells. They do so by carrying an unpaired electron, and seek out other molecules to correct this imbalance. Therefore,

free radicals carry an electrical charge and need another molecule to neutralise this charge. This is where the diet and vitamin supplement discussion is brought in.

Anti-oxidants eliminate this electrical charge, stabilise and neutralise the free radicals.

Anti-oxidants are normally derived mainly from our diet. The type thought to be most beneficial in the case of macular degeneration are carotenoids. These are the pigments that give fruit and vegetables their colour. Two such carotenoids are found in the macular. (Lute-in and Zeaxanthin).

Obviously, an easy way to obtain some of these anti-oxidants is to eat a healthy, balanced diet, high in fresh fruit and vegetables. Vegetables listed that are high in natural sources of carotenoids are:

**Kale Greens
Spinach Parsley
Celery Leaks
Broccoli Sprouts
Green Pepper and Tomato**

Registered dieticians and Nutritionists generally agree that the best way of getting anti-oxidant vitamins is from whole foods as part of a balanced diet, rather than supplement pills. Part of the reason for this is that whole foods provide many healthy compounds in addition to specific anti-oxidants, yet do not have any risks associated with overdosing on supplements. Obviously, a healthy diet offers benefits all round, but not everyone likes vegetables!

There are several products on the market, which contain these anti-oxidants and other supplements. These may be found in health food shops or via mail order from 'natural health' companies. From the research found, there does seem to be some conflicting theories and claims on just how successful supplements can be. A recent paper to be presented at the ARVO 2002 meeting 'The Lutein Antioxidant Supplementation Trial (LAST)' showed promising results.

This was a 12-month study on patients with dry ARMD. It measured both the macular pigment optical density and the visual

function. The main findings were that average eye Macular pigment Optical density increased 50% in both the Lutein and Lutein plus antioxidant treatment groups. They also found significant improvement in multiple measures of visual function, including near / distance and contrast sensitivity in both treatment groups.

Other research appears more cautious and seems to suggest antioxidants may slow down any further progression of ARMD in certain individuals. Although this ongoing research is certainly positive news, and worth considering if you have been diagnosed with ARMD, we would point out that this research has not lead to the conclusion that vitamin supplements can 'cure blindness' as suggested in some newspaper reports.

However, I would urge anyone considering this course of action to check with their GP before taking any supplements.

**©The Partially Sighted Society
7/9 Bennetthorpe
Doncaster
DN2 6AA**