



## Macular Degeneration and Vegetable Oils

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A recent media campaign has suggested the consumption of vegetable oils and margarine increases the risk of age-related macular degeneration. There is little scientific support for this view and no authoritative health organisation in Australia agrees with it.

Macular degeneration is a problem affecting the eyes that can lead to loss of clear vision. The macula is part of the back of the eye and plays a role in focussing the images the eyes receive. With age the macula can slowly start to wear out (macular degeneration), leading to fuzzy vision and, ultimately, some loss of sight. Among people over 75 years of age, about a quarter will have some signs of macular degeneration and 6-8 per cent will have some loss of vision. Age-related macular degeneration is becoming more common in Australia as the population ages.

The causes of macular degeneration are poorly understood. The most important risk factor, by far, is age. Some aspects of lifestyle may also increase risk. Smoking is the best recognised lifestyle risk factor. Overweight, high blood pressure and high blood cholesterol also appear to increase the risk of macular degeneration slightly. The link with blood cholesterol led researchers to investigate whether fats in the diet had any effects on the risk of age-related macular degeneration.

To date, only a handful of scientific studies have been conducted into dietary fats and age-related macular degeneration. All of these studies are epidemiological and therefore are not able to prove cause and effect. The results are contradictory. Some studies suggest animal fats increase risk; some studies suggests vegetable fats increase risk; and some studies suggest dietary fat is not associated with macular degeneration at all. The only study to investigate links between dietary fat and macular degeneration in Australia, the Blue Mountains Eye Study, found no association with vegetable oils. The only studies suggesting an association with vegetable fats were conducted in the United States where the fats in the diet are significantly different from those used in Australia - soybean oil is used extensively.

No authoritative nutrition organisation in Australia or overseas accepts that the consumption of vegetable oils increases the risk of age-related macular degeneration. The dietary recommendations about fats from the World Health Organisation, the National Heart Foundation, the National Health & Medical Research Council and the CSIRO are intended to reduce the risk of cardiovascular disease and are all essentially the same:

- limit total fat intake
- limit saturated and animal fat in particular
- choose unsaturated margarines and vegetable oils - use in moderation.

The Australian Oilseeds Federation accepts the recommendations of these expert organisations. The Federation is of the view that the suggestion that vegetable oils, or any component of vegetable oils, increase the risk of age-related macular degeneration is unproven.

#### **Further reading**

1. Smith W et al. Arch Ophthalmol 2000;118:401-4.
2. Mares-Perlman JA et al. Arch Ophthalmol 1995;114:235-6.
3. Heuberger RA et al. Arch Ophthalmol 2001;119:1833-8.
4. Seddon JM et al. Arch Ophthalmol 2001;119:1191-1199.
5. Cho E et al. Am J Clin Nutr 2001;73:209-18.
6. Seddon JM et al. Arch Ophthalmol. 2003;121:1728-37.