

Vegetable oils and age-related macular degeneration

Age-related macular degeneration is a problem affecting the eyes of older people that can lead to loss of clear vision. The leading risk factor for this condition is age. As the average life expectancy of Australians has increased, the number of people with macular degeneration has steadily climbed. Some lifestyle factors are known to increase the risk of age-related macular degeneration. Smoking is the best-recognised lifestyle risk factor and being overweight may also increase risk. Little is known about whether diet affects the risk of macular degeneration in older people.

Several years ago it was suggested that vegetable oils in the diet may play a role. These claims were based on only a few studies, conducted mainly in the United States. The studies investigated whether the total amount of fat or different types of fat in the diet affect the risk of macular degeneration, but there were no consistent findings. As the types of fats and oils in the American and Australian diets are different (the US diet has historically been higher in trans fatty acids), studies conducted in Australia are more likely to provide an accurate picture of whether fats pose any risk in this country.

Australian studies

Recently, two Australian studies into whether the amount or type of fat in the diet affect the risk of macular degeneration were published – the large Melbourne Collaborative Cohort Study (1) and the Blue Mountains Eye Study (2). The findings of both studies were similar:

- Neither study found that the total amount of fat in the diet was linked to increased risk for macular degeneration.
- Neither study found that saturated, monounsaturated or polyunsaturated fat affected risk.
- Neither study found that butter or margarine consumption was linked to increased risk.
- In both studies there was a suggestion that omega 3 fats from fish may offer some protection against macular degeneration.

Diet and lifestyle advice

If you want to avoid macular degeneration the most important message, by far, is 'don't smoke'. From the dietary point of view, eat a balanced diet including fish 2-3 times each week; eat plenty of green vegetables; watch your weight and get plenty of physical activity. The best advice about fats is that provided by the Heart Foundation and the National Health & Medical Research Council:

- Consume fat in moderation
- Replace saturated fats with unsaturated fats, such as polyunsaturated and monounsaturated vegetable oils and margarines
- Enjoy a wide variety of nutritious foods including plenty of different coloured fruits and vegetables for natural antioxidants,
- Consume vegetable oils rich in monounsaturated and polyunsaturated fats, while limiting your intake of saturated fats and reducing your total fat intake.
- Enjoy nuts and fish which may offer protection.
- Combine a healthy diet with exercise each day to achieve and maintain a healthy body weight and blood pressure.
- And finally - stop smoking.

References

1. Chong EW, Robman LD, Simpson JA, et al. Fat consumption and its association with age-related macular degeneration. *Arch Ophthalmol*. 2009; **127**: 674-80.
2. Tan JS, Wang JJ, Flood V et al. Dietary fatty acids and the 10-year incidence of age-related macular degeneration: the Blue Mountains Eye Study. *Arch Ophthalmol* 2009; **127**: 656-65.

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