

# The see food diet

Nutrition is the latest weapon in the battle against vision loss, writes **Paula Goodyer**.

**F**ish, avocado and olive oil may do more than help keep your arteries in good shape – foods like these may also help preserve your vision as you age, according to preliminary findings from Australian research into eye disease.

Data from the Blue Mountains Eye Study – researching the vision of more than 2000 Blue Mountains residents by the Centre for Vision Research at the University of Sydney – suggests omega-3 fats from fish and monounsaturated fats from the likes of olive oil and avocado may help prevent age-related macular degeneration (AMD), an increasingly common eye disease responsible for about half of all cases of blindness.

This degeneration – which affects the macula, or central part of the retina (the part of the eye we see with) – is the irreversible cause of two-thirds of vision loss in the over 50s.

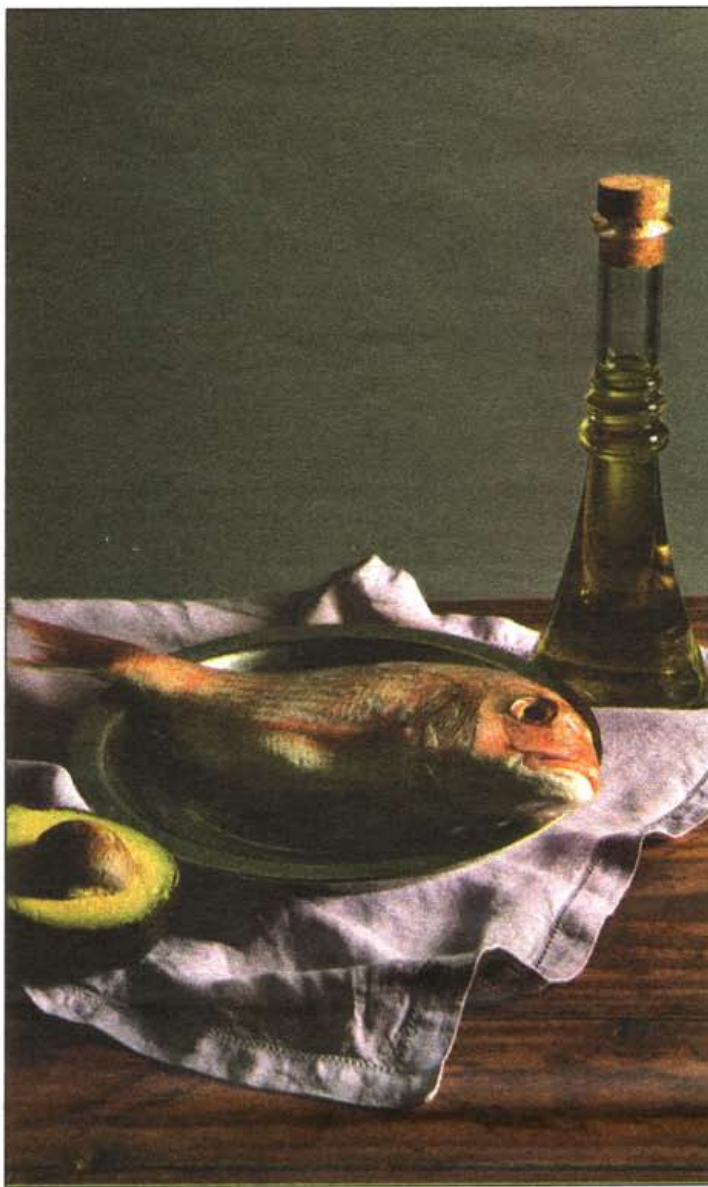
These findings add to other research suggesting that some lifestyle factors, most importantly smoking, but also diet, may influence how well we see as we age. While we can't pick our parents – and eye diseases such as age-related macular degeneration and cataracts have a strong genetic component – there's growing evidence that we have some control over some of the factors that can damage our sight.

Dr Vicki Flood – nutritional epidemiologist at the NSW Centre for Public Health Nutrition and a researcher with the Centre for Vision Research – says other studies suggest that dark leafy greens such as spinach and broccoli, and fruits such as oranges, may also help prevent this degeneration.

These foods contain lutein, an antioxidant from the carotenoid family which acts as a pigment that colours food, and which is also found in high concentrations in the retina, where it's thought to help reduce oxidative damage.

Egg yolks are another potentially good source of lutein. Some eggs are higher in lutein – eggs sold under the Body Egg brand come from chickens fed with marigolds, which are a rich source of the pigment.

But just how omega-3 oils from fish and monounsaturated fats might help isn't clear. Flood says it



Tuck in ... foods that are good for eyes. Photo: Jennifer Soo, styling Samm Moiler

may be that these foods, typical of a heart-healthy Mediterranean diet, may help by keeping blood vessels to the eyes healthy. Omega-3 fatty acids may also protect the retina against oxidation.

As for a possible link between polyunsaturated margarines, some vegetable oils and a higher risk of the degeneration, the findings have been inconsistent, she says. More research needs to be done.

"I think we're getting to the point where we need public health messages saying that, along with not smoking, eating oily fish at least once a week – as well as a variety of vegetables and

fruits – may help protect vision," she says. "It's a safe message because these foods may help prevent heart disease too."

As for whether we should take antioxidant supplements to prevent degeneration, US research has found that although supplements containing 500mg of vitamin C, 400 IU of vitamin E, 15mg of beta carotene and 80mg of zinc reduced the risk of the condition progressing to an advanced stage by about 30 per cent, there's no evidence that it's useful if you don't already have the condition. Nor is there evidence that lower doses of these antioxidant supplements work.

There are also concerns about taking high doses of zinc over the long term. Nutrition is a balancing act, and too much zinc can reduce your levels of another mineral, copper – though some supplements promoted to help vision contain copper, too.

Flood says for those who still smoke, it's important to remember that taking beta carotene in supplement form has been linked to an increased risk of lung cancer – and that, so far, the evidence for preventing vision loss from AMD is far stronger for those who quit smoking than it is for those who change their diet. Smoking also increases the risk of cataracts.

Smoking seems to attack the eye on many fronts – possibly by damaging a layer that helps shield the eye from ultraviolet light by reducing blood flow to the eye and by depleting the pigments that help protect the retina. "We also know that smokers have lower concentrations of lutein in the retina," Flood says, "but once they stop smoking, the concentrations increases."

Professor Paul Mitchell, director of the Centre for Vision Research, says "the effect of smoking on vision is profound – the estimate is that 20 to 25 per cent of cases of new blindness from AMD are caused by smoking".

On average, he says, smokers develop the condition 10 years earlier than non-smokers. Yet, he adds, once someone quits smoking they considerably reduce the risk – even if they've smoked for most of their life.

"Smokers with severe AMD in one eye might reduce their risk of AMD progressing to the second eye if they stopped smoking – and there's a big difference between having vision loss in both eyes rather than just one," he says.

"The lifetime risk of developing AMD for most people is 12 per cent, but for anyone with a family history it's 50 per cent. What we don't know at this stage is whether people with a family history of AMD will reduce their chances of developing it if they make the effort to reduce environmental risk factors. There's still a lot we don't know," Mitchell says.