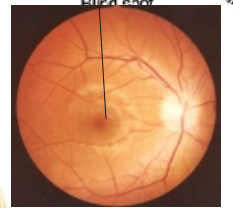
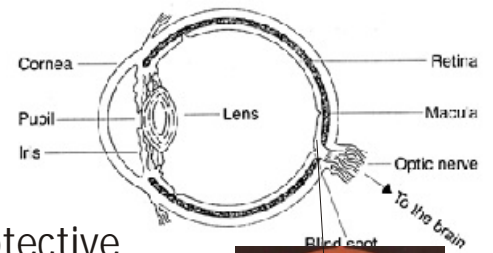




# FACT SHEET

## Nutrition and Eye Health

A healthy diet is considered important because specific nutrients protect tissues from damage by chemicals called oxidants. Exposure to bright light, particularly blue light, can overpower the protective antioxidative nutrients in the retina which can contribute to the development of Age Related Macular Degeneration (AMD). The macula is the central part of the retina used for accurate vision, such as reading. Protecting your eyes from UV light can be a first line protection of the delicate retinal tissues. Many of the protective chemicals within the retina, Lutein, Zeaxanthin and Zinc, in particular, can only be obtained from our diet, we cannot synthesise them. These nutrients act as sunblocks for the macula and counteract the effects of oxidants.



Studies suggest the macula needs 10mg of Lutein per day while the average western diet only supplies 3mg! While it is important to eat a wide range of foods, the vegetables with the highest amount of Lutein are:



### Lutein in (FRESH) vegetables (mg/100g)

Kale: 11.4mg, Red Pepper 8.5mg, Spinach 7.9mg,

Lettuce 4.7mg, Leek 3.6mg, Broccoli 3.3mg, Peas 1.7mg



Eggs contain both Lutein and Zeaxanthin which may be more easily absorbed by the body because they are contained in the egg fat. Zeaxanthin is also found in orange and Yellow fruits and vegetables such as sweetcorn and orange peppers. These also contain Vitamins C and E.



Omega-3 fatty acids, particularly in cold-water fish, have also been found to have a protective effect against macular degeneration.





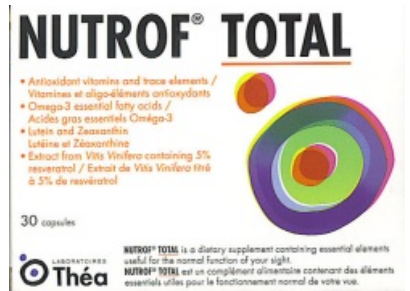
In the western world the daily consumption of nutrients is generally well below the levels beneficial to macular pigment health.

Despite this:  
It is widely agreed a healthy diet, including at least 5 portions of fruit and vegetables a day, supplies enough macular nutrition without supplements.

So while supplements shouldn't replace healthy eating they can be helpful for western diets. BUT not all supplements are supported by sound clinical research. AREDS1 and AREDS2 were large scale studies giving evidence

- AREDS 2 Formula**
- Vitamin C 500mg
  - Vitamin E 400IU
  - Copper 2mg
  - Lutein 10mg
  - Zeaxanthin 2mg
  - Zinc 25mg

certain nutritional supplements in a specific 'recipe' can slow down the progression of AMD by approximately 25%. Beware of any supplement claiming to be a 'cure' or which does not adhere to the AREDS2 formula which is the only evidence based recipe. We recommend Thea's NUTROF TOTAL.

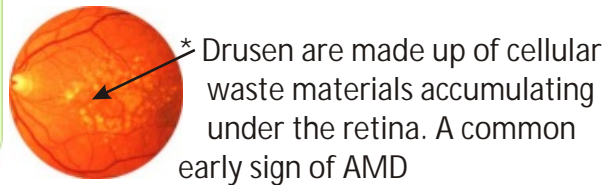


So should we all be taking AREDS 2 formula to avoid AMD? The evidence does not support this (See AREDS2 outcomes in the green panels). There may be benefits

**Evidence of AREDS2 benefit if:**

1. You have many medium sized Drusen\*
2. One or more large Drusen\*
3. You have 'WET' AMD in one eye and 'DRY' AMD in the other
4. You have a diet low in green leafy vegetables and fruit.

taking the AREDS formula for other people, perhaps those with very early signs of macula change, a family history of AMD or those with poor diets. We can simply say these results were not identified in the 5 years of the AREDS1 or AREDS2 studies.



**No evidence of AREDS2 benefit if:**

1. There are only early signs of AMD; several small Drusen\*
2. You have advanced AMD in both eyes.
3. You have active 'WET' AMD



**Smoking and General Health:** Smoking increases the production of oxidants making smokers four times more likely to develop AMD. Diets high in saturated fats, high cholesterol, high blood pressure and obesity also represent higher risks of developing AMD.

Final note: It is important to note healthy eating and nutritional supplements cannot guarantee the prevention of AMD. But the current advice represents good practice for your general health and well being and as such should be considered by everyone.