



Optometrists

Tel: 01394 382 718

<http://www.eyeppractice.co.uk>
e-mail: orders@eyeppractice.co.uk

Nutrition and the eyes

Nutrition is important for your general health and the health of your eyes. This leaflet provides information about essential nutrients and their sources.

Nutritional supplements should be considered if you are at risk of **cataracts** (a clouding of the lens in the eye that affects vision) or **macular degeneration** (loss of vision directly in front of you). This is particularly important for people over 50 years old with a poor diet. Carotenoids, Vitamins C and E and foods rich in antioxidants such as fruits and vegetables (at least 3-4 servings per day, preferably 5 servings) reduce the risk of cataract and macular degeneration. Decreased levels of selenium in the eye have been linked to cataract formation, macular degeneration and **diabetic retinopathy** (damage to blood vessels in the retina of the eye).

Vitamin E, zinc and Omega-3s (essential fatty acids) may lower the risk of suffering from **dry eyes**, and **meibomian gland dysfunction** (not enough oil produced by glands in the eyelids).

Glaucoma (increased pressure in the eye) sufferers may be able to reduce their intra ocular pressure (IOP) by regular exercise such as 40 minutes, 4 times a week. Vitamin C may reduce IOP, (500 mg day or more). Vitamin B12 may halt visual field loss and Ginkgo biloba may improve visual field loss.

A study published in 2013 (AREDS2) has shown that taking nutritional supplements can reduce the progression of **Age Related Macular Degeneration** (ARMD). The supplements recommended by this study were:

- | | | | |
|-------------|--------|-----------------------|-------|
| • Vitamin C | 500 mg | Zinc (as zinc oxide) | 25 mg |
| • Vitamin E | 400 iu | Copper (cupric oxide) | 2 mg |
| • Lutein | 10 mg | Zeaxanthin | 2 mg |

Nutritional supplements in doses similar to those recommended by AREDS2 are commercially available under the trade names of “**I.Caps Eye Vitamin Lutein & Omega-3 formula**”, “**Ocuvite Eye Vitamin Adult 50+ formula**”, “**Viteyes2**”, “**Macushield Gold**”, **MacuLEH**” and “**Altacor EyeBar**” (chocolate).

Cooking food generally reduces its vitamin content; alcohol reduces the beneficial effects of nutrients, as does smoking. Some antibiotics, antacids, and non-steroidal anti inflammatory drugs, e.g. ibuprofen, can reduce the body’s ability to absorb nutrients.

Reducing alcohol consumption, stopping smoking, and wearing sunglasses outside may reduce the rate of macular degeneration and cataract formation.

Please **consult your GP before starting any supplements**. Supplements containing beta-carotene may increase the risk of lung cancer in people who smoke (or have smoked in the past). Do not take supplements containing beta-carotene if you have ever smoked. High doses of zinc (80mg) may increase the risk of genitourinary infections.

Natural sources of essential nutrients

Vitamin A (May help prevent **cataracts** and **macular degeneration**)

Liver, cod liver oil, dairy products, eggs, oily fish

Carotenoids (May help prevent **cataract** and **macular degeneration**)

Kale, spinach, fresh parsley, broccoli, peas, collard greens, brussel sprouts, carrots, watercress, sweet potato, squashes, spinach, fresh parsley, lettuce, pumpkin, green beans, corn, tomato (raw), cantaloupe melon, dried apricot. Carotenoids are important for a healthy retina (back of the eye). Beta-carotene, lycopene, lutein and zeaxanthin are all types of carotenoid, found in different plants.

Lutein and **zeaxanthin** can offer protection against **macular degeneration** and are abundant in spinach, turnip greens, collard greens and kale. High levels of lutein may reduce the risk of **cataract**. At least 2-4 portions a week is recommended.

Vitamin C (May help prevent **cataract**, **glaucoma**, and **macular degeneration**)

Strawberries, kiwi fruit, blackberries, citrus fruits, spinach, broccoli, potatoes, peppers

Vitamin E (May help prevent **cataract**, **dry eyes** and **macular degeneration**)

Vegetable oils, soya beans, peas, wheat germ, egg yolk, nuts, seeds, meat, animal fat

Selenium (May help prevent **cataract**, **macular degeneration**, and **diabetic retinopathy**)

Tuna, brazil nuts, mushrooms, chicken, onions, tomatoes, nuts, meat, cereal grains, fish

Zinc (May help with **dry eye** symptoms and **macular degeneration**)

Oysters, shellfish, red meat, eggs, peas, turnip, cereals, green leafy vegetables, nuts, seeds.
Zinc levels in the body are reduced by the consumption of wheat, bran, and alcohol.

Lycopene (May help prevent **macular degeneration**)

Pink grapefruit, dried apricot, tomato juice, cooked tomatoes

Omega-3s - essential fatty acids (May reduce **dry eye** symptoms)

A good balance of omega-3 to omega-6 (e.g 1:4) can help dry eyes. Omega-3 is found in oily fish such as salmon, mackerel, herring, trout, and sardines, and also in linseed oil, rapeseed oil and walnuts. Omega-6 is excessively consumed and is found in vegetable oils and nuts. If your diet cannot be changed, taking daily supplements of 1000mg omega-3 may help improve dry eyes, but this should be discussed with your GP first (especially if you are taking “statins”) because they could increase your blood cholesterol.

Other supplements

- Bilberry (Contains high levels of antioxidants, which improve blood circulation to the eyes)
- Ginkgo (Improves circulation, may reduce **macular degeneration**)
- Grapeseed extract or pine bark extract (antioxidant)
- Polyphenols (antioxidant found in green tea)

June 2014