



Importance of Zeaxanthin as an Antioxidant Supplement to Improve Vision

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Description

Zeaxanthin, a non-provitamin A carotenoid belonging to the xanthophyll family. However, zeaxanthin has been shown to have a number of beneficial effects on human health due to its ability to quench free radicals, exert antioxidant effects, and reduce inflammation.

Zeaxanthin is a natural carotenoid, the pigment responsible for the bright colour of some fruits and vegetables. It is found in high concentration in cabbage, spinach, mustard, turnip greens and other leafy green vegetables. The highest concentration is found in goji berries. Like other powerful antioxidants, zeaxanthin minimizes phototoxic stress in the eyes and body. Humans do not produce carotenoids, so they must be consumed. It has powerful antioxidant properties and has been linked to several health benefits, such as reducing the risk of age-related macular degeneration, glaucoma and cataracts.

Zeaxanthin and lutein are present in the lens of the eye, where cataracts form. Oxidative stress is thought to be a cause of cataracts, and zeaxanthin (as well as lutein) may play a protective role in slowing or preventing cataracts, as some studies have shown. The highest level of oxidative stress in the body occurs in the macula (central retina) of the eye. The only carotenoids found in the macula are lutein and zeaxanthin. They are the main component of macular pigment.

Antioxidant and anti-inflammatory properties in the eye

Antioxidants protect the body from oxidative stress caused by highly reactive molecules called free radicals or oxidants. They reduce the level of free radicals and inflammation in the body. Overproduction of free radicals and chronic inflammation in the body is associated with the development of diseases such as;

- Age-related Macular Degeneration (AMD)
- Dementia

- Cancer

Additionally, exposure to blue light waves has been shown to increase free radical production and oxidative stress in the eyes and is a potential threat to eye health. Research has shown that zeaxanthin reduces oxidative stress and eye damage by absorbing blue light, which in turn reduces inflammation and the risk of eye disease.

Food sources

Corn, egg yolks, and breast milk are other bioavailable sources, meaning your body can easily absorb zeaxanthin from these foods. Here is a list of other foods rich in zeaxanthin and lutein, including their amounts per 100 grams;

- Raw spinach: 12.2 mg
- Raw pistachios: 2.9 mg
- Raw green peas: 2.5 mg
- Raw romaine lettuce: 2.3 mg
- Boiled summer squash: 2.3 mg
- Boiled Brussels sprouts: 1.2 mg
- Raw broccoli: 1.4 mg
- Boiled pumpkin: 1.0 mg
- Boiled asparagus: 0.8 mg
- Raw carrots: 0.3 mg

Potential risks

Zeaxanthin appears to be generally safe, although scientific results are inconclusive. There may be some concern about taking xanthophyll's (including zeaxanthin) at higher doses, but more research is needed. Other studies suggest that a daily intake of 0.34 mg per pound (0.75 mg per kg) of body weight may be safe. This is equivalent to 53 mg of zeaxanthin for a 154 lb (70 kg) person. High levels are generally difficult to consume with a single diet. The average daily dietary intake of zeaxanthin is only 1.3 mg.