



VISION FACTORS WITH 7.5 MG LUTEIN

Supports healthy vision

Eyes are the precious and complex organs that miraculously allow the mind and intellect to perceive the physical world around us. To properly “feed” our eyes on a daily basis we need to eat a variety of wholesome and nutritious foods. Dark green leafy vegetables, deep orange veggies and vividly coloured berries and fruit are the best foods for nourishing the eyes. The diets of our ancestors were replete with these foods, but today most people don’t get enough eye-protecting nutrients from their diet. Natural Factors Vision Factors provides vital nutrients that protect your eyes from within, and fill the dietary gaps that might otherwise lead to eye disease.

Our eyes need good blood circulation to receive essential nutrients on a continual basis. They also need protection from oxidative stress generated by light exposure, other external oxidants, and free radicals generated within cells during metabolic processes. Inadequate levels of antioxidants can lead to oxidative stress, contributing to degeneration of cells and tissues in the eye. Age-related macular degeneration (ARMD) is the leading cause of blindness in adults over 40, with 25% of 65 year olds showing clinical symptoms. Cataracts and glaucoma are the next major causes of adult blindness.

SUPPLEMENTS FOR EYE HEALTH

Eyes require many important “vision factors” to maintain good health. They rely on good blood flow and normal blood pressure to assure a steady supply of oxygen and essential nutrients to all parts of the eyes including the retina and optic nerve. Eyes also require antioxidants to protect them from oxidative stress that can otherwise cause vision loss. A balanced diet to support healthy, nutrient-rich blood and adequate daily anthocyanin and oligomeric proanthocyanidin (OPC) flavonoids that prevent blood platelet stickiness and safely thin blood (better than aspirin) are also important for good eye health. Getting the necessary levels of antioxidants including B, C and E vitamins; lycopene and other carotenoids; and CoQ10 and other nutrients that prevent the oxidation of LDL cholesterol (and therefore thwart hardening of the arteries and reduce the risk of high blood pressure) is also critical. As vitamin C, anthocyanins, and OPCs give structural integrity to collagen and elastin (the building blocks of strong, flexible connective tissues, mucous membranes and blood vessel walls) they are required for good circulation and normal blood pressure.

According to the latest eye research, a healthy eye lens, iris, and cornea requires vitamins C and E, lutein, and zeaxanthin, together with zinc, copper, and selenium to protect against oxidative damage from UV and blue light and other oxidants that can cause cataracts. A healthy retina including the macula

(central retina) and the fovea (central macula) is particularly reliant upon the carotenoids lutein, zeaxanthin and lycopene; these nutrients also increase pigment density in the retina and protect against light damage. Vitamins B, C, and E, and zinc, copper, and selenium, are needed by the retina for visual processes, and zinc is vital for metabolic enzymes in the retina, and for night vision. Bilberry and blueberry anthocyanins increase the production of rhodopsin pigments (retinal purple) needed for night vision.

The Vision Factors formula includes a broad range of healing nutrients from wholesome vegetables, fruit and berries. It combines: colourful blue and purple flavonoids from bilberries and blueberries, known for their powerful vision-enhancing properties; lutein and zeaxanthin, the deep orange-yellow carotenoids from Mexican marigolds, which concentrate in the lens and retina of the eye and protect it against damage from light and other oxidative stresses; red lycopene from tomatoes, a powerhouse antioxidant that protects the cells of the eyes from free radicals; and the antioxidants CoQ10 and vitamins C and E; as well as B vitamins, zinc, selenium, and copper, nutrients shown to be especially important to eye health.

THE MANY BENEFITS OF LUTEIN AND ZEAXANTHIN

The effects of lutein are truly amazing. Some of its many benefits are:

- Preventing and treating advanced degenerative eye conditions such as ARMD, cataracts, glaucoma, and diabetic retinopathy
- Strengthening capillaries that feed the eye oxygen-rich blood
- Protecting the eyes from oxidative stress caused by free radicals
- Protecting the eyes from sun damage
- Maintaining optimal eye health

Recent studies based on 4,519 participants aged 60 – 80, found that dietary lutein/zeaxanthin intake was inversely associated with neovascular ARMD while intake of dietary carotenoids, vitamin A, alpha-tocopherol, and vitamin C was not (San-Giovanni, *et al*).

Lutein and its companion carotenoid, zeaxanthin, are the only carotenoids found in the lens of the human eye. Lutein helps prevent cataracts and improve visual function in people who have cataracts. Three large studies have shown that higher intake of lutein reduces the need for cataract surgery. In another study, patients clinically diagnosed with age-related cataracts were randomly assigned to take 15 mg of lutein/zeaxanthin, or 100 IU of vitamin E, or a placebo, three times a

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week for up to two years (Richer, *et al*). Analysis showed that visual performance (visual acuity and glare sensitivity) improved in the lutein/zeaxanthin group. There was a trend toward maintenance of visual acuity with vitamin E, and visual performance decreased with the placebo.

For decades, eye doctors have identified glaucoma as a loss of peripheral vision and hardening of the surface of the eye due to optic nerve damage caused by elevated fluid pressure within the eye. However, eyes with normal fluid pressure can also lose peripheral vision. Research into glaucoma has discovered a nerve toxin may be involved in the common form of glaucoma. Glaucoma patients exhibit an abnormally high concentration of glutamate in the vicinity of the optic nerve. Glutamate is a key chemical used in the transmission of optic nerve impulses. Risk factors cause optic nerves to die off, releasing more nerve-toxic glutamate, resulting in the accelerated loss of vision typically observed in the last stages of glaucoma. There is evidence that lutein and zeaxanthin help protect the optic nerve. The nerve layer of the retina, near where nerve cells exit the eye and connect to the brain, is protected from oxidative damage by lutein. Researchers have found that a lack of lutein and zeaxanthin in this nerve bundle may be an early sign of glaucoma (Murray).

LYCOPENE

This potent antioxidant helps prevent the ravages of oxidative stress. Lycopene intake is significantly inversely related to the prevalence of pigmentary abnormalities in the retina. Lycopene, lutein and zeaxanthin also prevent LDL oxidation which can cause hardening of the arteries.

BILBERRY, BLUEBERRY AND GRAPE SEED

The key flavonoids of bilberry, blueberry and grape seed, called anthocyanins and oligomeric proanthocyanidins (OPCs), have a very strong affinity for the macula of the eye and the blood vessels of the retina. Clinical studies have shown bilberry extracts improve nighttime visual acuity, adjustment to darkness, and restoration of visual acuity after exposure to glare in normal subjects, as well as for those with poor night vision and hemeralopia (an inability to see as

distinctly in bright light as in dim light) (Murray). Similar results have been observed in experimental studies with grape seed extract (Murray).

VITAMINS AND FOLIC ACID

Several studies have demonstrated that vitamin C supplementation can prevent cataract formation, halt its progression and, in some cases, significantly improve vision. For example, in one study women who used vitamin C supplements for more than 10 years had a 77% lower rate of cataract formation than women who did not take a vitamin C supplement. Folic acid is a B vitamin needed for optimal eye health. Low levels of folic acid also predict cataracts. A number of epidemiological studies show an increased risk of nuclear or cortical cataract in people with low blood levels of vitamin E.

COENZYME Q10

CoQ10 is a key factor in the creation of energy in every cell of the body, including eye cells, oxygenating the tissues and stimulating circulation. In terms of eye health, the mitochondria (cellular power plants) within the retina are especially vulnerable to toxic byproducts of cell metabolism. This makes supplementation with CoQ10 especially important.

B VITAMINS

Poor eyesight can sometimes indicate a B vitamin deficiency. The B-complex "vital amines" that are vital for eyesight include: B1 (thiamine), B2 (riboflavin), B6 (pyridoxine), B12 (cobalamin), and folic acid. B vitamins function in many different ways to help enzymes carry out thousands of molecular conversions in the body and are therefore known as coenzymes. A diet deficient in B vitamins can have a ravaging effect on the eyes and, if prolonged, can cause permanent vision problems.

ZINC, COPPER AND SELENIUM

Zinc is the most important mineral for eye health as it plays an essential role in metabolism of the retina and the visual process. It is also a component of the antioxidant enzyme super oxide dismutase (SOD) and other enzymes important for night vision. Levels of zinc (and copper) have been shown to be greatly reduced in cataracts in over 90% of cases. Zinc is also involved in protecting the eyes against macular degenera-

tion. A two-year double-blind, placebo-controlled trial involving 151 subjects demonstrated that the group taking a zinc supplement had significantly less visual loss than the placebo group (Murray). Selenium has also been shown to have an antioxidant role important for eye health.

DOSAGE

1 capsule, 2 times daily, preferably with meals, or as directed by a health care practitioner.

SAFETY

Data from human and animal studies show all nutrients found in Vision Factors are exceptionally safe.

Pregnancy and Lactation: Do not use if pregnant or lactating.

Children: Suitable for children at half the adult dosage.

Contraindications: None known.

Drug interactions: None known.

Vision Factors can help prevent and combat degenerative eye conditions. Other measures for protecting the eyes include wearing sunglasses and hats when you're in the sun; limiting your alcohol intake; quitting smoking; eating a balanced, nutritious diet rich in wholesome fruits and vegetables, especially leafy greens; consuming beneficial fats and oils, including omega-3 rich fish oils; avoiding bad fats and processed or fried foods; watching your weight; and getting an eye exam at least every two years.

KEY REFERENCES

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