

Keep Your Eyes Fit and Young, Part II

MINERALS AND FLOWER PRODUCTS FOR THE EYES

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Zinc is an important nutrient suggested to prevent or slow cataracts and delay the progression of age-related macular degeneration and vision loss. Doctors recommend between 15-50 milligrams of zinc a day; however, too much zinc can deplete your body of copper. You should take about one milligram of copper for every 10 milligrams of zinc. The daily value of zinc is two milligrams without medical supervision. Natural sources of zinc include brewer's yeast; wheat germ; seeds; whole grains; nuts; egg yolks; lecithin; mushrooms; onions; peas; seafood; oysters; soybeans; sprouted spinach; sunflower seeds; and pumpkin seeds.

Selenium is a mineral involved in the body's production of glutathione peroxide, another protective enzyme found in the eye. This enzyme is an antioxidant, and is important in DNA and protein synthesis. It affects retinal vessel proliferation, retinal vessels and tissue elasticity. A lack of it can increase the severity of a cataract and cause hemolytic problems. Additionally, glutathione, a naturally occurring compound in the lens of the eye, is an important enzyme that helps prevent the formation of cataracts.

Individual selenium supplements are not usually recommended. A multivitamin/mineral product that contains 40 micrograms of selenium is recommended instead. Doctors who recommend selenium supplements suggest taking between 50-200 micrograms a day, but no more. Selenium can be toxic even in small amounts, so watch your intake. Garlic is a rich source of selenium, as are onions; mushrooms; cabbage; whole grains; wheat germ; brazil nuts; brewer's yeast; broccoli; eggs; tomatoes; turnips; and fish.

Recently published studies in the *Archives of Ophthalmology* (July 2001, vol. 119) examined 478 nondiabetic women between the ages of 53 and 73 who did not have previously diagnosed cataracts. The studies found that the prevalence of nuclear opacification was significantly lower in the highest nutrient intake category relative to the lowest category for vitamin C, vitamin E, vitamin B2 (riboflavin), beta-carotene and lutein/zeaxanthin.

In 1992, Susan E. Hankinson, ScD and coworkers from Harvard University examined the prevalence of cataracts in 50,000 nurses. Their results found that women who consumed five servings of spinach per week had a significantly lower risk of cataracts compared to women who consumed five servings per week of carrots, sweet potatoes or winter squash. Spinach is a rich source of lutein, while carrots, sweet potatoes and winter squash are a rich source of beta-carotene, but are very poor in lutein. However, both beta-carotene and lutein are vital nutrients for a healthy retina. Other excellent sources of lutein are kale, collard greens and mustard greens.

A 1995 study from Tufts University on the presence of carotenoids in the eye and the lens of the eyes found that lutein and its isomer, zeaxanthin, are the only carotenoids found in the tissue of the eye.

Lutein in the lens may retard the oxidation of the lens protein, which leads to cataracts.

A 1993 study conducted by Harvard University showed a significantly lower risk of age-related macular degeneration (AMD) when associated with serum carotenoid levels. Drs. Khachik and Bone, in 1993 and 1995, respectively, found that lutein could be converted to zeaxanthin in the blood serum.

Lutein is the key carotenoid. In 1994, Harvard University examined the role of antioxidants in the blood serum for the onset of AMD. Individuals with the highest carotenoid serum levels had a 30% lowered risk for AMD. Also in 1994, Dr. Johanna Seddon found that an intake of six milligrams per day of lutein led to a 43% lower prevalence of this disease. The studies concluded that diet plays a key role in the amount of lutein found in the macular region, and that a diet high in lutein was recommended.

These studies and findings recommend a sustained healthy diet with nutritional supplements high in vitamin A and beta-carotene; vitamin E; vitamin C; vitamin B2 (riboflavin) and B12; lutein; zeaxanthin; selenium; glutathione; zinc; copper; and the amino acid cysteine, to reduce the risk of age-related eye diseases and help keep your eyes young and vibrant along with the rest of your body.

Flowers for Good Vision

Marigold

Botanical Name: *Calindula Officinalis*

English Common Name: Marigold

Homeopathic Name: Calendula

Medicinal Parts: Leaves and flowers

Properties and Uses: Antispasmodic, aperient (mild laxative), diaphoretic (producing perspiration), vulnerary (used in the treatment of wounds)

Marigolds have numerous medicinal properties. They are high in lutein and zeaxanthin, the prime carotenoids and naturally occurring antioxidants found in the tissue of the eye. Studies have shown that a diet high in lutein may slow the oxidation of the lens protein that can lead to cataracts and age-related macular degeneration. Marigolds are also good for gastrointestinal problems such as ulcers; cramps; colitis and diarrhea; menstrual difficulties; fever; and abscesses. Its essence can be taken in a juice preparation or as a topical salve for wounds, bruises, sprains, pulled muscles, sores, boils and warts.

Chrysanthemum

Botanical Name: *Chrysanthemum Morifolium* Ramat

Pharmaceutical Name: *Flos Chrysanthemi Morifolii*

Mandarin Name: *Ju Hua*

Japanese Name: *Kikuka*

Korean Name: *Kukhwa*

English Common Name: Chrysanthemum Flower

Medicinal Parts: Flowers

Chrysanthemums have a beneficial effect on fever, headache, clearing the liver and brightening the eyes. Chrysanthemum clears the liver channel, manifested by red, painful dry eyes and excessive tearing or deficient yin of the kidneys and liver, with symptoms such as spots in front of the eyes, blurry vision or dizziness.

Antibiotic effect: preparations of *flos chrysanthemi moriflorii* (*ju hua*) have an *in vitro* inhibitory effect against staphylococcus aureus, B-hemolytic streptococcus and shigella sonnei.

Treatment of hypertension: preparations of *flos chrysanthemi moriflorii* (*ju hua*) and *flos lonicerae* (*jin yin hua*) were used in a study for 46 patients with essential hypertension and/or atherosclerosis. Within one week, symptoms such as headache, dizziness and insomnia began to improve, and 35 of the subjects had normal blood pressure.

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