Vitamin E Lowers Risk of Cataracts

In an animal study, vitamin E significantly inhibited the formation of cataracts associated with exposure to ultraviolet light, report researchers at Orebro University Hospital in Sweden.*

Cataracts are the leading cause of blindness worldwide and of visual impairment in the US. Exposure to sunlight, particularly ultraviolet B (UVB) radiation, is a significant risk factor for cataracts.

In the Swedish study, rats were divided into two groups and exposed to UVB light. One group served as controls and received no supplements, while the other was fed vitamin E. At the study’s end, eye lenses were evaluated for opacities and levels of vitamin E and glutathione.

As anticipated, the control group of rats developed cataracts. In contrast, the vitamin E-fed rats exhibited only slight opacities in their eye lenses. Vitamin E and glutathione levels were significantly higher in the lenses of the supplemented rats than in those of the control group.

The researchers concluded that the antioxidant vitamin E helped prevent cataract formation either directly through its own action or indirectly through the modulation of glutathione synthesis. Glutathione is an endogenous (internally produced) antioxidant that, like vitamin E, scavenges free radicals and peroxides that would otherwise oxidize protein, lipids, and nucleic acids.

The risk of cataracts in adults is related to the cumulative dose of UVB light. Because even low levels of UVB light can damage the eye lens, simple measures such as wearing sunglasses and wide-brimmed hats, as well as supplementing with vitamin E, are strongly recommended to help protect against cataract formation and related vision loss.

—Linda M. Smith, RN

Reference


Garlic Slows Growth of Atherosclerotic Plaque

California researchers report that garlic slows the progression of coronary artery calcification, an important marker for determining the severity of atherosclerosis.*

Nearly half of all heart attacks occur in those with no history of heart disease, and laboratory tests for markers such as C-reactive protein, fibrinogen, and homocysteine can help to predict risk. Coronary artery disease can also be determined by CT scans, which enable doctors to quantify the coronary artery calcium burden and use it to estimate the severity of atherosclerosis. Serial determinations of the coronary artery calcium burden can be used to follow disease progression over time.

Garlic has numerous well-established cardioprotective properties. Specifically, garlic inhibits cholesterol biosynthesis, decreases platelet aggregation, reduces lipid peroxidation, and lowers blood pressure.

In their study, researchers at the Harbor-UCLA Medical Center Research and Education Institute enrolled 19 patients receiving statin therapy, who underwent an electron beam CT scan at enrollment and again one year later. During the study period, nine subjects received 4 ml of aged garlic extract daily, with compliance confirmed by active ingredient testing. The garlic group registered a 7.5% increase in calcium scores, while the placebo group’s scores increased by 22.2%, consistent with previous reports. Left untreated, coronary artery calcification has increased by as much as 52% annually in those not treated with statins and by 25% in those ineffectively treated with statins.

The authors concluded that people with known risk factors for heart disease might benefit from garlic supplementation, even if they are currently receiving statin therapy.

—Linda M. Smith, RN

Reference

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