

# Nutritional Supplements and Vision



For the last decade, there has been mounting evidence that dietary supplements can help prevent the onset and progression of cataracts and age-related macular degeneration (AMD). However, clinical trials had proven inconclusive, until October 2001, when the National Eye Institute (NEI) released new findings in their Age-Related Eye Disease Study (AREDS).

The nine-year study tracked about 4,700 patients, ages 55-80 in 11 clinical centers nationwide. Participants were given one of four treatments: 1) zinc alone; 2) antioxidants alone; 3) a combination of antioxidants and zinc; or 4) a placebo, a harmless substance with no medical effect.

## What were the major results of the study?

AREDS suggested that pharmacological-level doses of zinc, vitamins C and E, and beta-carotene may help slow the progression of age-related macular degeneration (AMD). Unfortunately, the nutrients did not lower the risk of cataract development.

The benefits of the nutrients were seen only in people who were at high risk of developing advanced AMD, those with intermediate AMD and those with advanced AMD in one eye. Among these people, those taking antioxidants plus zinc had the lowest risk of developing advanced stages of AMD and the vision loss associated with it. Those who took the zinc alone or antioxidant alone also reduced their risk of developing advanced AMD, but more moderately. Those in the placebo group had the highest risk of developing advanced AMD.

Other research has suggested that lifelong good nutrition may lower the risk of some eye diseases. A lifetime diet rich in certain dark green vegetables may reduce the risk of AMD. You can also help your general eye health by avoiding smoking, staying active and controlling your blood pressure.

Caution is advised when considering taking supplements. The following points should be kept in mind:

- > There is **no** evidence from this study to suggest that taking nutritional supplements can prevent people who currently have no vision problems from getting AMD in the future.

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## Nutritional Supplements and Vision—Continued

- > The results are restricted to the supplements evaluated (zinc, vitamins C and E, and beta-carotene).
- > There are other supplements on the market for eye health such as lutein, zeaxanthin, ginkgo biloba and bilberry extract, that were not available when AREDS began and thus were not included in the study. It is still unknown if these products are helpful to people with AMD or other vision problems.
- > The high doses of supplements used in the study are several times greater than those found in most multi-supplement formulations and may have some risks. Smoking increases these risks.
- > If you are like many older Americans and take prescription and over-the-counter medications, you must be careful. High-dose supplements can interfere and interact with other drugs, decreasing the nutrients' absorption into the body.
- > The zinc concentration in the AREDS formulation is very high and could cause copper deficiency anemia. To prevent this, copper was added to the AREDS formulation. The AREDS formulation was developed by Bausch & Lomb, who now markets the drug under the name Ocuvite® PreserVision™. There are similar products on the market with a variety of names, made by other companies.
- > AREDS participants reported few side effects from the treatments. About 7.5% of participants given the zinc treatments, both antioxidants plus zinc or zinc alone, needed to be hospitalized for problems including urinary tract infections, kidney stones, incontinence and enlarged prostate. This compares with 5% of participants who did not have zinc and were hospitalized for the same problems. Yellowing of the skin, a well-known side effect of large doses of beta-carotene, was reported slightly more often by those taking antioxidants.
- > Supplements are not a cure. You should NEVER stop taking your medication or other treatment in favor of taking supplements, without first consulting your doctor.

***Prevent Blindness America recommends periodic dilated eye exams as the best way to ensure that your vision is healthy and to keep it that way. If you have AMD, or any vision problems, you should visit your eye doctor every 1 or 2 years.***

