

VITAMIN & MINERAL SUPPLEMENTS AND YOUR EYES

Scientists have long debated whether taking vitamin and/or mineral supplements could help prevent, treat, or cure certain eye conditions. Some early scientific studies seemed to show that supplements had the potential to prevent or slow the progression of cataract and age-related macular degeneration (AMD). A more complete study was needed to answer some important questions:

- Which supplements are helpful for which condition(s)?
- Which patients will benefit from supplementation?
- What doses of supplements would benefit patients?
- What other effects might these supplements have on the body?

A recent study, the Age-Related Eye Disease Study (AREDS), sought to address these questions and seems to have given us some, but not all of the answers to these questions.

What is AREDS?

AREDS is a major study sponsored by the National Eye Institute (NEI) (one of the federal government's National Institutes of Health) conducted at 11 major medical center research facilities around the country.

In the study, scientists looked at the effects of zinc and antioxidants and a combination of both on patients with cataracts and those with varying stages and types of AMD. They also studied patients without evidence of cataract or AMD to determine if zinc and/or antioxidants can prevent the development of these conditions.

What were the results?

The study showed a number of important things:

- High levels of antioxidants and zinc can reduce the risk of vision loss from advanced AMD by 19% in high-risk patients (patients with intermediate AMD or advanced AMD in one eye but not the other).
- Supplements do not provide significant benefit to patients with minimal AMD.
- These nutritional supplements do not prevent the initial development of AMD, nor do they improve vision already lost to AMD.
- Nutritional supplements do not seem to prevent cataracts or keep them from getting worse over time.
- While most patients in the study experienced no serious side effects from the doses of zinc and antioxidants used, a few taking zinc alone had urinary tract problems that required hospitalization. Some patients taking large doses of antioxidants experienced some yellowing of the skin. The long-term effects of taking large doses of these supplements are still unknown.

Should I take nutritional supplements?

If you have intermediate or advanced AMD in one eye only, talk to your physician about taking nutritional supplements. He or she can help you determine if they may be beneficial and safe for you. He or she can also help you determine what types and doses of supplements to take. The doses used in the study were:

- Vitamin C 500mg
- Vitamin E 400iu
- Beta-carotene 15mg
- Zinc 80mg, as zinc oxide
- Copper 2mg, as cupric oxide (Copper should be taken with zinc because high-dose zinc is associated with copper deficiency.)

It is very important to talk with your physician before taking large-dose supplements and to follow his or her dosage recommendations carefully. Some supplements may interfere with each other or other medications.

Smokers and ex-smokers probably should not take beta-carotene as studies have shown a link between beta-carotene use and lung cancer among smokers.

Where can I get more information?

More information on AREDS is available from the National Eye Institute of the National Institute of Health. www.nei.nih.gov/amd

Your ophthalmologist is your best source of information about eye care.



Retina & Glaucoma Associates is a fulltime ophthalmology practice specializing in the diagnosis and treatment of retinal diseases and glaucoma.

John R. Nordlund, M.D., PhD is a former University of Virginia School of Medicine Faculty Member who has fellowship training in Medical Retina from the Mayo Clinic and Glaucoma from the Johns Hopkins School of Medicine.

Retina & Glaucoma Associates

113-A Bulifants Boulevard
Williamsburg, VA 23188

Phone: (757) 220-3375

Fax: (757) 220-3380