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, and what types and doses of supplements to take. The doses used in the study were:

- Vitamin C 500 mg
- Vitamin E 400 IU
- Beta-carotene 15 mg (approximately 25,000 IU)
- Zinc 80 mg, as zinc oxide
- Copper 2 mg, 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?

Please feel to contact Goldsboro Eye Clinic and ask for more information.

Disclaimer: The responses provided through this service are not intended to replace consultation with an ophthalmologist. This question and answer service is intended for general educational purposes only and the responses represent the approach of the responding physician given the facts presented, not necessarily the only or best method or procedure in every case. Please refer to the Academy's full disclaimer.

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EASY GUIDE TO MACULAR DEGENERATION

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MACULAR DEGENERATION

What Is Age-Related Macular Degeneration?

Age-related macular degeneration (AMD) is the leading cause of vision loss worldwide and typically affects individuals 50 years of age or older. The disease affects the part of the retina called the macula, which is responsible for central vision. Central vision enables us to read, drive, sew and perform other tasks that require detailed vision. Vision loss from AMD typically occurs gradually and can affect both eyes at different rates. Even though macular degeneration can cause visual impairment, the disease usually does not cause peripheral (side) vision loss or lead to total blindness.

The two common types of macular degeneration are "dry" and "wet." The "dry" form is usually caused by aging and thinning of the tissues of the macula. It develops slowly and usually causes only mild vision loss.

As this form of the disease develops, people often notice a dimming of vision while reading.

"Wet" macular degeneration poses a greater threat to vision loss than the "dry" form. The "wet" form of the disease causes new blood vessels to grow beneath the retina, which leak fluid and blood, often creating a large blind spot in the center of the visual field.

The following signs are possible symptoms of macular degeneration.

- Color perception fades or changes
- Straight lines appear distorted and in some cases, the center of vision appears more distorted than the rest of the scene
- A blurry, dark area or a "white-out" appears in the center of vision

Types

- **"Dry" form** the most common form usually progresses slowly and causes central vision loss.

The Age-Related Eye Disease Study (AREDS) is a major study sponsored by the National Eye Institute (NEI), one of the Federal government's National Institutes of Health, and 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 on those with varying stages and types of age-related macular degeneration (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 doses of antioxidants and zinc can reduce the risk of vision loss from advanced AMD by about 19 percent 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 to 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.

Eye M.D. Even if you don't have a family history of AMD, see an Eye M.D. to prevent future vision loss.

Certain factors other than hereditary seem to play a role in the development of the disease:

- Uncontrolled high blood pressure
- Smoking, including second-hand smoke
- Over-exposure to UV-Rays
- Poor diet

Despite the fact that macular degeneration can cause visual impairment, low vision aids such as brighter reading lights and magnifying glasses have been developed to assist people with the disease. To receive a resource list of companies that specialize in low vision aids, please contact lwalter@aao.org.

Vitamin and Mineral Supplements and Your Eyes Information From Your Eye M.D.

Background

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), although 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 might 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?

- **"Wet" form** rare, and more severe. May progress rapidly causing significant central vision loss.

Who Gets It

Most common in people over 50, but can appear as early as age 40. As life expectancy increases, the disease is becoming a significant problem.

Causes

No conclusive proof exists. However, some scientists believe heredity may play a part, as well as UV light exposure and nutrition. Studies are ongoing.

Symptoms

Blurred or fuzzy vision; straight lines, such as sentences on a page or telephone poles, appear wavy; blind spot in the center of vision.

Prevention

- **Regular eye exams by your Eye M.D.** Your Eye M.D. is specially trained to detect many vision-threatening conditions even before you develop symptoms. The earlier problems are detected, the better the chance of preventing vision loss.
- **Protection from UV-A and UV-B rays.** Some studies have suggested that prolonged or frequent exposure to UV-A and UV-B rays may be a factor in macular degeneration and other eye conditions, so always wear sunglasses that block 99 percent to 100 percent of UV rays when outdoors.
- **Proper nutrition.** High levels of zinc and antioxidants can play a role in slowing the progression of macular degeneration. A healthy diet can't hurt and can prevent many other health problems.

Treatment

- **"Dry" form** No proven effective treatment. Low vision rehabilitation can

help those with significant vision loss to maintain excellent quality of life.

- **"Wet" form** laser surgery or photodynamic therapy may help as well as low vision rehabilitation.

Photodynamic Therapy

Photodynamic therapy (PDT) is one of the most promising new treatments for the "wet" form of macular degeneration. It involves the injection of the FDA-approved drug,Visudyne™, into the bloodstream, followed by a brief laser treatment. The laser "activates" the drug, which helps destroy abnormal blood vessels in the eye that damage the macula. The procedure may be done in the Eye M.D.s' office, and several treatments may be necessary for it to be effective.

Because the US Food and Drug Administration has approved Visudyne use for PDT as safe and effective, PDT may become more widely available to patients. However, it is not a good choice for everyone. Your Eye M.D. can tell you if you might be a good candidate for treatment.

Unproven Treatments

Be wary of any treatment that promises to restore vision, cure or prevent macular degeneration. There are many so-called "miracle cures" advertised (often in magazines or on the Internet) that have not been adequately tested for safety or efficacy. These treatments may be expensive and are generally not covered by insurance. If you are considering trying a new or untested treatment make sure you talk to your Eye M.D. to ensure they are safe and won't interfere with timely and effective treatment of other eye problems.

Current Research

There is a great deal of research and several major scientific studies being conducted to find the causes and develop effective treatments for all types of macular degeneration. Visit the National Eye Institute Web site for additional information www.nei.nih.gov.

Low Vision Rehabilitation

Can help people who have

experienced mild to severe vision loss adjust to their condition and continue to enjoy active and independent lifestyles. Rehabilitation may involve anything from adjusting the lighting in your home to learning to use low vision aids to help you read and perform daily tasks. Your Eye M.D. can arrange rehabilitation or refer you to organizations that can help.

Support

Adjusting to vision loss can be difficult at first. Your Eye M.D. may be able to recommend some support groups for people with low vision. You can support friends and family by encouraging them in their rehabilitation efforts and providing help (such as rides to appointments) when needed.

Resources

Your Eye M.D your best resource for any eye care question or need. (Your Eye M.D. is a medical doctor specially trained to provide the full range of eye care, from eye exams and prescribing glasses and contacts to complex surgery for eye problems.)

Is There a Cure for Macular Degeneration?

At this time there is no cure for the "dry" form of age-related macular degeneration (AMD), but research continues to take place. Some evidence suggests that certain vitamin supplements, such as zinc and antioxidant vitamins, can help slow the progression of the disease. Studies also suggest that wearing appropriate sunglasses to protect your eyes from the sun's ultra-violet rays can be helpful.

If caught early, the "wet" form of macular degeneration can sometimes be treated with photodynamic therapy or laser surgery, which may delay or reduce the severity of the disease.

Macular degeneration appears to be hereditary, in most cases. In the early stages, usually no signs of vision problems appear. Because no symptoms occur at the start of the disease, it is important to have regular eye exams with your