



### AREDS Finds High Dose Antioxidants and Zinc Slow AMD Progression

In a landmark, NEI-sponsored, 10-year trial, researchers determined that patients with at least moderate AMD who took supplemental antioxidants and zinc could significantly lower their risk of progressing to advanced stages of the disease and its accompanying visual loss. The combined antioxidant-zinc group reduced their risk of disease progression by 25%, and decreased their risk of vision loss by 19%. Those in the “zinc alone” or “antioxidant alone” groups also reduced their risk, but at more moderate rates. The antioxidant-zinc combination effectively slowed vision loss and disease progression—a finding of great public health importance, since the incidence of AMD is expected to triple by the year 2025.

**Age-Related Eye Disease Study Research Group. AREDS Report No. 8: A randomized, placebo-controlled, clinical trial of high-dose supplementation with vitamins C and E, beta carotene, and zinc for age-related macular degeneration and vision loss. *Archives of Ophthalmology* 119:1417-1436, 2001.**

### AREDS Participants Given Zinc Have Reduced Risk of Mortality

Because ocular disorders such as cataract, AMD and diabetic retinopathy are reported to be predictors of decreased life span, investigators examined the relationship between AMD, cataract and mortality among AREDS participants. They also analyzed the relationship between mortality and the high-dose supplements used in the trial. Advanced AMD was associated with cardiovascular death. Nuclear opacity and cataract surgery were also associated with higher all-cause mortality and with cancer deaths. Participants randomly assigned to receive zinc, whether alone or

combined with antioxidants, had lower mortality than those not taking the mineral. They report a 27% reduced risk of mortality for zinc alone, and a 12% lower risk for those who took zinc combined with beta-carotene, vitamin C and vitamin E. The beneficial effect of zinc on mortality was associated with less death from respiratory causes. Zinc has been shown to bolster immune response, which is known to decline with aging.

**AREDS Research Group. Associations of mortality with ocular disorders and an intervention of high-dose antioxidants and zinc in the Age-Related Eye Disease Study. *AREDS Report No. 13. Arch Ophthalmol* 122:716-726, 2004.**

### Second AREDS Trial to Evaluate EPA, DHA, Lutein and Zeaxanthin

The AREDS 2 trial, now underway, is a multi-center, randomized study of 4000 participants aged 55-80 who have intermediate or advanced AMD. The recruitment window is 15-24 months, with a minimum 5 year follow-up. Participants will receive 1 of 4 supplements: either placebo, 10 mg of lutein along with 2 mg of zeaxanthin, 1 g of DHA and EPA, or a combination of the lutein, zeaxanthin, DHA and EPA. The effect of these nutrients on cataract and moderate vision loss will also be studied. In addition, investigators will evaluate versions of the original AREDS supplements with reduced zinc and no beta-carotene. While the main focus will be on AMD and cataract, the researchers also hope to learn more about the effects of EPA and DHA on mental function and cardio-vascular disease.

***The Second Age-Related Eye Disease Study (AREDS2)***  
[www.areds2.org](http://www.areds2.org)