

Vitamins for Age-Related Macular Degeneration: Update from AREDS2

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The Age-Related Eye Disease Study (AREDS) has previously demonstrated that daily oral supplementation with antioxidant vitamins and minerals can reduce the risk of developing advanced age-related macular degeneration (AMD) by 25% at 5 years. Advanced AMD was defined as the development of choroidal neovascularization (CNV) or central geographic atrophy (GA).

In the May 2013 issue of the Journal of the American Medical Association (JAMA), the long anticipated results of the Age-Related Eye Disease Study (AREDS2) study were released. The main outcome of this study was to examine if there was any potential benefit in adding lutein, zeaxanthin, and/or omega-3 fatty acids to the original AREDS formulation. Secondary outcomes examined the effect of eliminating beta-carotene and reducing the zinc dose from the original AREDS formulation.

The AREDS2 study results showed that there was no added benefit with the addition of lutein, zeaxanthin, and/or omega-3 fatty acids to the original AREDS formulation. There was an increased risk of lung cancer in patients taking beta-carotene supplementation (mostly in former smokers), and the AREDS2 study found that there was no loss of the protective effect of the AREDS formulation with the elimination of beta-carotene. Furthermore, reducing the zinc dose did not result in any loss of protective effect either. There was some data in AREDS2 to suggest that lutein and zeaxanthin could serve as a substitute for beta-carotene.

Based on the results of both the AREDS and AREDS2 studies, we feel that the following daily oral supplementation is recommended for patients with AMD and multiple intermediate drusen, one or more large drusen, and/or advanced AMD in one eye:

- Vitamin C (500 mg)
- Vitamin E (400 international units)
- Zinc (80 mg as zinc oxide)
- Copper (2 mg as cupric oxide)
- Lutein (10 mg)
- Zeaxanthin (2 mg)