

## Macular Degeneration & Vitamins

Age-related Macular Degeneration (AMD) is a condition that causes damage and loss of function of the central part of the retina called the macula. Patients develop drusen, atrophy, and pigmentary changes in the macula which can lead to central vision loss for both near and far vision. Unfortunately, AMD is the leading cause of severe vision loss in people 65 years of age and older.

There are two main types of AMD - **Wet** and **Dry**. Ninety percent of patients who have AMD have the “dry” form. Dry AMD causes gradual vision loss over many years. Wet AMD is much less common and much more aggressive. Wet AMD can cause sudden vision loss over days to weeks. Treatment for wet AMD involves laser or injections.

There is no cure for AMD. Treatment options for AMD are intended to prevent future vision loss. The most significant study involving AMD was the **AREDS** or **Age Related Eye Disease Study**. Published in 2001, the National Eye Institute reported that people who have intermediate or advanced AMD benefit significantly (reduce their risk of progression to advanced AMD by 25%) by taking high doses of antioxidant/zinc supplements.

New information has since been discovered, showing benefits from **Lutein, Zeaxanthin, and Omega-3 fatty acids** supplements and potential risk for lung cancer linked to Beta-Carotene. In 2006, **AREDS2**, a follow-up study, was initiated which has showed promising results. The study will conclude in 2013. **AREDS2** formula includes daily doses of the following:

- Vitamin C 500 mg
- Vitamin E 400 IU
- Lutein 10 mg
- Zeaxanthin 2 mg
- Omega 3 fatty acids 1000 mg
- Zinc (as zinc oxide) 70 mg
- Copper (as cupric oxide) 1.6 mg

(over)

AREDS and AREDS2 formula vitamins are sold over the counter as **Preservision** or **Icaps**. Until the final results of AREDS2 are complete, AREDS remains the standard; however, given the promising preliminary results of AREDS2, the new formulation is available and recommended. If you have a history of smoking, you should take a formulation without Beta-Carotene (or Vitamin A). Beta-Carotene supplements may increase the risk for lung cancer in smokers or patients with a history of smoking.

It is safe to continue a daily multivitamin while taking the AREDS or AREDS2 formula. However, you should not take any additional vitamin A, C, E, zinc or copper. Patients with a history of prostate disease may have side effects related to the zinc. All patients should check with their primary doctor prior to starting any AREDS or AREDS2 formula.

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