

Macular degeneration occurs with the breakdown of the macula, which is the part of the retina responsible for the sharp, central vision needed to read or drive. Central vision loss often occurs.



Macular degeneration, often called AMD or ARMD (age-related macular degeneration) is classified as either dry or wet. The wet form, neovascular, refers to growth of new blood vessels in the macula, where they are not supposed to be. Dry macular degeneration is diagnosed when yellowish spots known as drusen begin to accumulate in the macula. Gradual central vision loss may occur with dry macular degeneration but is not nearly as severe as symptoms associated with the wet form of AMD. The dry form is more common than the wet, with about 85%-90% of AMD patients diagnosed with dry AMD.

Macular degeneration is the leading cause of blindness and low vision in Americans aged 50 and older. *Archives of Ophthalmology* in 2004 estimated that 1.75 million U.S. residents now have significant symptoms associated with age-related macular degeneration, with that number expected to grow to almost 3 million by 2020.

## Treatment

Currently there are no FDA-approved treatments available for the dry form of macular degeneration. A major National Eye Institute study (AREDS) has produced strong evidence that certain nutrients such as beta carotene (vitamin A) and vitamins C and E may help prevent or slow progression of dry macular degeneration.

<http://www.nei.nih.gov/amd/summary.asp>

One treatment for wet AMD is an FDA approved drug called Macugen (pegaptanib sodium injection). Patients with wet AMD have high levels of the vascular endothelial growth factor (VEGF) protein in their affected eyes. VEGF-blocking drugs (Macugen) were able to prevent the growth of these abnormal blood vessels. Also in recent years Lucentis and Visudyne have entered the market.

Another treatment for wet AMD is thermal laser photocoagulation of the abnormal blood vessels. Overall, laser photocoagulation is only helpful in about 7-8 percent of patients with wet AMD. When successfully treated, wet macular degeneration is converted back to dry macular degeneration.

Despite the medical advances that continue to occur there are still no effective therapies for the vast majority of patients with dry or wet AMD.

### **Who's Most At Risk**

Age is only one common factor found among those with AMD. There are many others including, but not limited to Caucasians, females, family history, smoking, high blood pressure, lighter eye color, drug side effects and obesity. Some less common factors may be over-exposure to sunlight and high levels of dietary fat.

Although progress continues to be made, complete recovery of vision lost to AMD is probably unlikely. If you feel you are at risk, or already showing symptoms, talk to your eye doctor about checking your vision with the Amsler grid. It is a simple non-invasive test which helps to monitor vision loss.

We here at the Eye on Vision Foundation are committed to finding more treatments for both wet and dry AMD. Your contribution today goes towards a brighter future tomorrow.