



Age-Related Macular Degeneration

Age-related macular degeneration (ARMD) currently affects more than 8 million Americans and is the most common cause of severe vision loss in Americans over fifty years of age. The main risk factors for developing ARMD include older age, race (Caucasians have the highest risk), family history of ARMD, and smoking. Additional risk factors include high blood pressure and heart disease. After the age of 75, the chances of being affected by ARMD are one in three.

ARMD affects the center of the light sensitive tissue on the back of the eye, which is called the retina. The macula is the center of the retina. While no bigger than a pencil eraser, the macula is responsible for our fine central vision. The macula enables us to read newspaper print and distinguish faces. When damaged, our central vision can become grey and distorted.

In the earliest stage of the disease, yellow deposits called drusen develop. Most people have no symptoms at this point but the drusen can be seen when the eyes are dilated and the macula is examined. ARMD can then develop as either a dry form or a wet form of the disease. The dry form is the most common. In dry ARMD, drusen become more extensive, deposits of pigment occur within the macula, and thinning or atrophy of the tissue that supports the macula can develop. People may begin to experience decreased vision at this point.

At any time, the wet form of the disease may develop. In wet ARMD, abnormal new blood vessels form beneath the retina or beneath the supportive tissue under the macula. These abnormal blood vessels can break and bleed and the macula may become swollen. Vision loss can be sudden and severe when this happens. The type and extent of ARMD can be diagnosed by a retina specialist using a combination of direct examination of the macula through a dilated pupil and using imaging modalities such as the Optical Coherence Tomogram, which uses light to look at a cross section of the macula, or Fluorescein Angiography in which a photograph is taken of the blood vessels in the macula after a dye is injected into a vein in the arm.

A complete eye examination with your doctor is the best way to see if you have macular degeneration or are at risk of developing ARMD. If you are found to be at high risk of developing advanced ARMD then a specific vitamin regimen, the Age Related Eye Disease Study (AREDS) vitamin regimen, can reduce your risk of developing advanced macular degeneration by 25 percent. The Age Related Eye Disease Study is a study that was done by the National Eye Institute and looked at the effect of antioxidant vitamins on the progression of ARMD. While there are over 30 types of 'eye vitamins' on the market, there is only one product, Preservision Eye Vitamins by Bausch and Lomb, which duplicates



Normal vision vs. vision of someone with advanced macular degeneration.

the exact antioxidant vitamin and mineral supplements used in the Age Related Eye Disease Study. It should be noted that this regimen contains beta carotene, which was found to increase the risk of lung cancer in individuals who have smoked in the last 10 years. There is a special formulation that is safe for those who have smoked within the past 10 years – Preservision with Lutein.

If you develop wet macular degeneration, then a number of treatments are now available. Treatments for wet macular degeneration include laser treatment, photodynamic therapy, and the administration of medications into the eye to stop the abnormal new blood vessels.

The most important things you can do to reduce your risk of macular degeneration are: Have an annual eye exam after the age of 50; eat a well balanced diet with plenty of green leafy vegetables; if you smoke cigarettes, stop; be checked regularly by your primary care doctor for elevated cholesterol and high blood pressure and follow your doctor's recommendation for diet and treatment if elevated cholesterol or high blood pressure exist. Also, avoid excessive exposure to sunlight by wearing 100 percent Ultraviolet A and B blocking sunglasses.

For more information on Age Related Macular Degeneration, or to schedule a retinal examination, please contact Dr. George Mayo, an EyeMD at Mayo Retina (714) 531-MAYO (6296). Please visit our website, www.mayoretina.com.