

MACULAR DEGENERATION



Age-related macular degeneration is the leading cause of vision loss in the United States for people over 65 years of age. It is the result of a deterioration of the absolute center of the retina, an area called the macula. With the macula, the eye sees detailed visual sharpness and colors, and can detect 3-D vision. AMD results from deterioration of the sublayers of the retina. There are two types of AMD, Dry and Wet, both of which cause loss of central vision that glasses cannot improve.

In Dry AMD, excess metabolism causes waste material to develop under the retina through a process called oxidation. This is similar to the rusting process that happens to the side of a car. This results in deterioration of a layer of darkly pigmented cells at the bottom of the retina and loss of the photoreceptor cells that give the eye clear and distinct sight. A person suffering from Dry AMD may notice that straight lines become wavy. Eventually the retina can become very irregular or wavy resulting in serious loss of central, detailed vision.

Eventually, Dry AMD can lead to severe retinal damage that causes the body to attempt to grow new blood vessels under the retina. These new vessels are very weak and typically bleed under the retina, causing Wet AMD. Wet AMD comprises about 10% of AMD cases. People who have Wet AMD see very large dark or empty spots in their vision.

Research has been focused on preventing the advancement of Dry AMD and on the treatment of Wet AMD. Studies have shown that high doses of vitamins and minerals can stabilize the retinal damage seen in Dry AMD. The recommendation for people with advanced stages of Dry AMD signs are: Zinc 80 mg, Beta Carotene (Vitamin A) 15,000 IU, Lutein 10 mg, and Omega-3 (from fish oil, 1000 mg.) Please note that high doses of Beta Carotene are not recommended for people who smoke.

In cases of Wet AMD, immediate examination by a retinal specialist is critical to preserve any remaining vision. Injections can be made directly into the center of the eye with drugs that block the formation of blood vessels. The goal of this treatment is to reduce the bleeding which typically occurs over many weeks or months of treatments.

People who have suffered visual loss from AMD can benefit from "low vision" eye examinations that result in prescriptions for visual aids such as magnifiers and telescopes that increase the size of viewed images to allow them to be seen despite the central blindspot that exists. Other devices such as specialized computer-attached cameras can provide magnified views of printed materials. Finally, special items such as talking watches and large-button calculators can be recommended to improve a person's independent daily living.

Since family history and medical conditions can contribute to AMD, eye doctors frequently counsel about the steps needed to reduce AMD risk and use examining processes and equipment designed to detect the earliest signs of AMD. The doctor may also recommend a simple at-home visual testing with a grid of straight lines that can make a person with early AMD aware of vision changes that should be examined by the eye doctor before significant vision loss occurs.

Please make time to have a complete eye and vision examination annually.