

Macular Degeneration

Age-related macular degeneration (AMD) is a vision disorder caused by abnormalities in a portion of the eye's retina called the macula. Early symptoms of AMD are blurred central vision and a waviness of straight lines. The blurriness may progress to blind spots, affecting reading, TV watching and many other pleasures of independent living. There are two stages of AMD. Early AMD is far more common but late AMD has a far greater impact on vision.

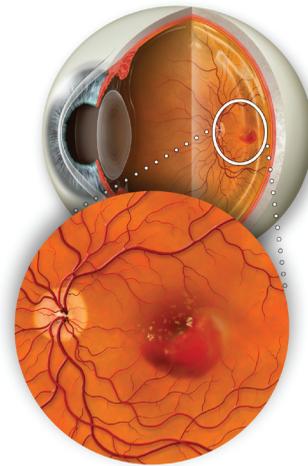
Early AMD is characterized by tiny clusters of soft, plaque-like deposits called drusen. Early AMD progresses slowly and central vision typically remains intact. Early AMD can advance to late AMD.

Late AMD can be subdivided into the dry, or non-neovascular, form and the wet, or neovascular, form (*see illustration*). Dry AMD is characterized by more extensive pigmentary abnormalities in the macula and by a somewhat extensive loss of pigment cells and vision cells in the central macula. It is called dry because it is not associated with abnormal blood vessels or leakage of blood or fluid.

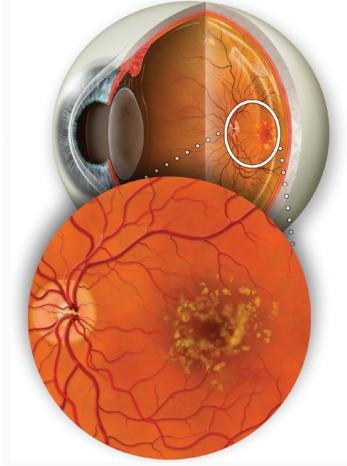
Wet AMD occurs in about 10% of patients who have late AMD. It is characterized by an overgrowth of blood vessels, behind the macula, that leak blood or fluid or both. This leads to damage of the vision cells.

Age is the single greatest risk factor for macular degeneration. An estimated 1.75 million Americans over age 40 have decreased vision from AMD. That number is expected to increase to 3 million by 2020. Research is advancing to understand and prevent macular degeneration, to halt its progression, and to develop optical devices to offset vision loss.

Wet Macular Degeneration



Dry Macular Degeneration



Extensive drusen deposits (right) or leaky blood vessels under the macula can cause changes in vision.

Important Vision Saving News

Studies supported by Research to Prevent Blindness (RPB) show that lifestyle choices may influence the onset and progression of AMD.

- Current and past smokers have increased risk of AMD.
- Moderate or high blood pressure appears to be linked to wet AMD.
- Lowering overall dietary fat while increasing omega-3 essential fatty acids (found largely in fish) may reduce risk of advanced AMD.
- Obesity dramatically increases the risk of developing AMD in those with genes associated with the disease.

Recent Strides by Researchers

- Uncovered the first genetic link to dry AMD and developed a treatment that has entered clinical trials
- Demonstrated ability to grow photoreceptor cells from non-embryonic stem cells
- Identified naturally occurring compounds found in plants that are potentially useful in treating retinal degeneration