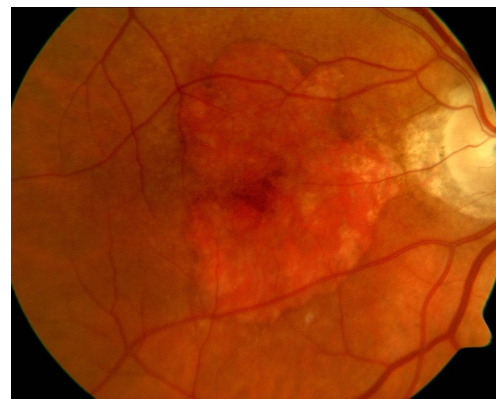


Dry age-related macular degeneration

Age-related macular degeneration (AMD) is a disease that affects the central retina, which is light-sensing tissue lining the back of the eye. It remains the single largest cause of vision loss in people over 65 years of age. AMD usually presents in patients over 55 years of age, although it can present earlier in genetically high-risk individuals.

The **wet** form is the major cause of sudden vision loss and is reviewed in a separate hand-out. The **dry** form is much more common and can cause slow progressive vision loss.



▲ Photograph of advanced dry AMD

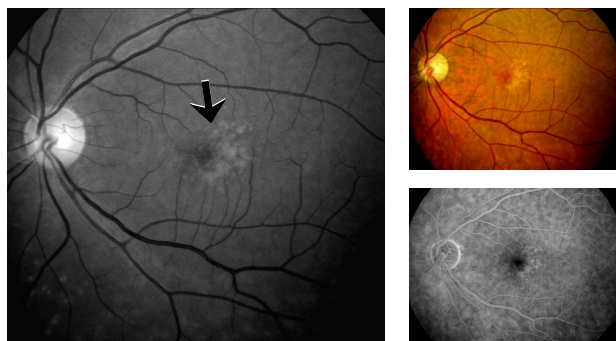
What exactly is dry AMD?

Dry AMD refers to characteristic changes in the retina, which is the sensory tissue in back of the eye responsible for vision. Some of the earliest changes include small *drusen*, which are accumulations of cellular and inflammatory waste products underneath the retina, resulting in distortion of the overlying retinal tissue. Additional dry AMD changes include thinning of the retina itself as well as accumulation of pigment within the retina, which can result in gradual central vision loss. These changes can be detected by careful clinical examination as well as high resolution imaging equipment to document and measure these alterations.

How is dry AMD evaluated?

A test called *optical coherence tomography* (OCT) is employed to determine exactly where these deposits are located as well as whether there is evidence of fluid or blood that may be hallmarks of progression to the wet form of AMD.

Another test called *fluorescein angiography* can also be used to directly photograph the retinal blood vessels and identify abnormal new blood vessels, which would indicate the development of wet AMD.



▲ Fluorescein angiogram images showing drusen under the retina (arrows) in dry AMD.

BayAreaRetinaAssociates



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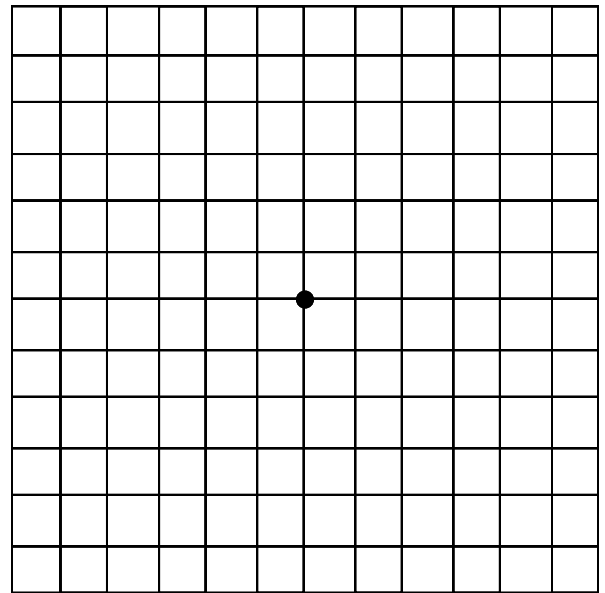
Can dry AMD be treated?

AREDS vitamins. While there are currently no FDA-approved therapies to treat or reverse vision loss from dry AMD, a large multi-center prospective clinical trial (The AREDS Study) demonstrated that a specific combination of vitamins A, C, E, zinc and copper can reduce the risk of developing wet AMD by approximately 25%. Special formulations also exist for current or former smokers that eliminate vitamin A and often replace it with lutein. Not all patients with dry AMD were shown to benefit from AREDS vitamins; speak with your eye care specialist to determine whether your specific findings warrant use of these daily non-prescription medications. New treatments for dry AMD are being tested in clinical trials. If you are interested in participating in studies to treat high risk dry AMD, speak with your retinal specialist.

Smoking. By far the greatest life-style risk factor for vision loss from macular degeneration is smoking. Discontinuing smoking in high risk patients may significantly reduce the risk of vision loss.

Amsler grid monitoring. Because dry AMD can progress to wet AMD in 10-50% of patients depending on clinical findings, patients with dry AMD should carefully monitor their central vision using an Amsler grid (right). Each eye should be independently tested regularly. If any new visual distortion is noted, this should be immediately reported to your retinal specialist for examination and prompt treatment if needed. This exercise may serve as the most important measure to save your sight, since early treatment provides the best visual outcomes if dry AMD progresses to wet AMD.

If you have any additional questions please feel free to ask our doctors.



Amsler grid: To use the Amsler grid, cover one eye at a time. Focus on the central dot and look for any waviness or missing areas in the grid lines. Changes in the Amsler grid examination may indicate activity from wet AMD.

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Bay Area Retina Associates is a group practice of retinal surgeons. All members of the group are board certified by the American Academy of Ophthalmology and have completed fellowship training in vitreoretinal surgery. BARA surgeons have expertise in the treatment of retinal detachment, diabetic retinopathy, age-related macular degeneration, macular hole, epiretinal membrane, and retinal vascular disease. BARA physicians see patients in seven offices and perform surgery at several hospitals and surgery centers around the East Bay.