

Eye Facts

Age-related Macular Degeneration

Age-related Macular Degeneration (AMD) is the leading cause of vision loss in the United States and is reaching epidemic proportions. Fortunately, great progress is being made in understanding and treating this retinal condition.

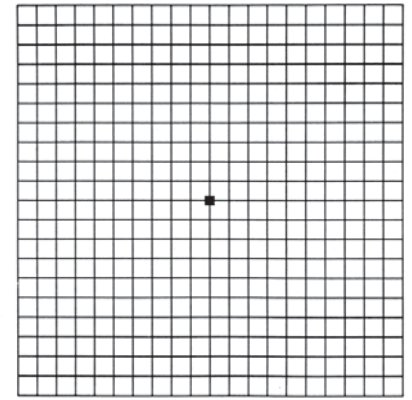
The retina is the inner lining of the back of the eye and contains cells that send visual information to the brain. The macula is the part of the retina that provides detailed central vision. There are two types of AMD, dry AMD and wet AMD. Most cases begin as the dry type, where the macula thins out and changes in its blood supply develop; inflammation often follows. Frequently, small yellow spots called drusen are seen on examination. There may also be changes in retinal pigments. Dry AMD slowly worsens with progressive vision loss over years. In the most advanced cases, dry AMD is associated with deterioration of the macula and poor central vision. There is no good treatment for dry AMD. In some



cases, taking a special ocular vitamin formulation can decrease the risks of vision loss by about 25%. In general, however, the management of dry AMD should involve risk factor reduction (to be discussed later).

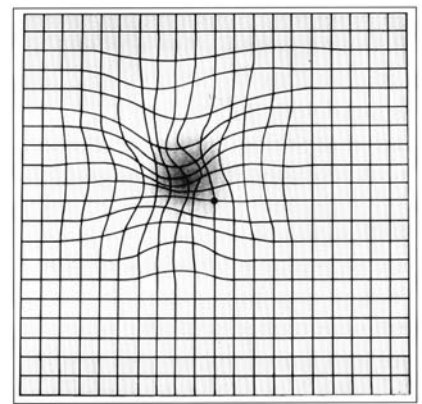
Wet AMD typically occurs in an eye that already has dry AMD and worsens more rapidly. About 25% of patients with dry AMD will eventually change to the wet type. It is important to identify patients undergoing this change because wet AMD can lead to vision loss over weeks or months, as opposed to over years in dry AMD. Changes associated with the transition from dry to wet AMD include a sudden worsening or blurring of vision, or

the development of distorted or wavy vision. For example, a door frame will appear curved instead of straight. Patients with dry AMD should monitor the clarity of vision in each eye on a weekly basis, using an Amsler grid. Patients with dry AMD who notice these changes should contact their primary eye doctor or a retina specialist at once.

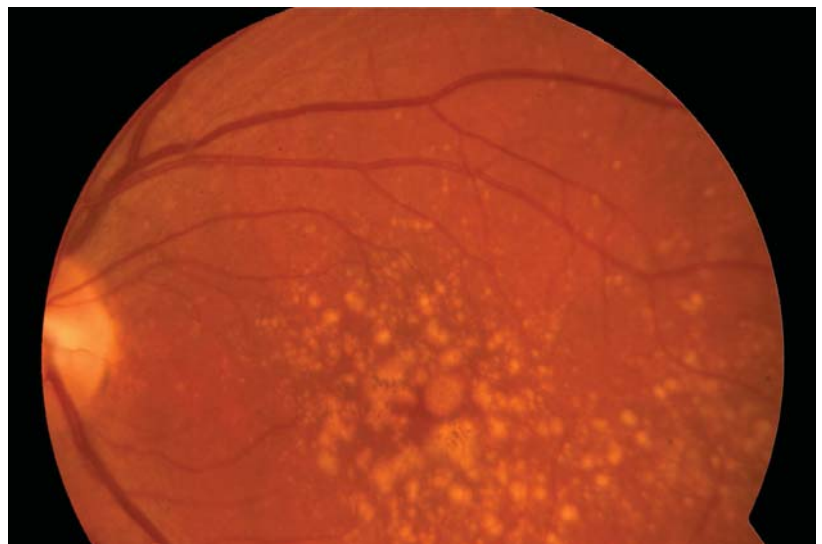


"normal" vision and simulation of how an amsler grid might look

The diagnosis of wet AMD can be made on examination and with the use of special retinal imaging technology. It is important to identify new cases of wet AMD (or changes in stable cases of wet AMD) because there are now very good treatments available. A new drug called Lucentis™ is now used in wet AMD and with it, 35% of patients with new onset wet AMD show significant improvements in vision. Additionally, 95% of patients who receive this treatment keep their vision generally stable over two years. Newer medicines are also under development, so it is important to work closely and stay in touch with your eye doctor if you develop symptoms of wet AMD. Additionally, it is important to always monitor both eyes as patients with wet AMD in one eye have a 50% chance of developing wet AMD in the other eye over five years.



vision simulation and how an amsler grid might look with wet AMD



specialized photography is used in the diagnosis of AMD

Reducing the risk of vision loss from AMD.

Despite the seriousness of the disease, the chances of losing vision from AMD can be reduced with proper attention to lifestyle and diet. This section includes a brief description of ways to reduce the risk of vision loss from AMD, and should be viewed in concert with a related document called “Keeping Eyes Healthy” which reviews in detail some of the foods that are recommended for patients with AMD.

There are multiple interventions besides diet that should be considered. Since AMD has many of the same risk factors as heart disease, cardiac risk factors should be addressed.

- Stop smoking -- smoking is the single biggest risk factor for wet AMD
- Treat hypertension.
- Control elevated blood lipids.
- Exercise regularly (even walking a couple miles several times a week has been shown to be beneficial).
- Maintain a healthy body mass index.
- Work with your primary care physician to stay educated on evolving risk factors for heart disease, and work with that individual to reduce these cardiovascular risk factors. Your physician may want to test you for blood lipids, C-reactive protein (CRP), and/or homocysteine.

- Eat eye healthy foods. These foods contain many antioxidants and nutrients required for optimal eye health. Try to eat foods high in zeaxanthin (spinach, kale, Swiss chard) and omega three fatty acids (fish and tree nuts). Limit the amount of high fat foods. Note: one study shows that patients with the highest levels of zeaxanthin in their diet had a 95% reduction in the rate of AMD.
- We suggest the use of sunglasses and a wide-brimmed hat on bright days as sunlight can stress the retina.
- Consider a nutritional supplement.
- See your eye doctor on a regular basis. Annual visits (at least) are recommended for people with signs of AMD.
- If you have dry AMD, use an Amsler grid in each eye regularly (about once per week).
- Call your eye doctor or a retinal specialist if you develop any concerning symptoms.

By following these guidelines, you will essentially be doing everything possible to reduce your risk of losing vision from AMD.

Please contact your eye care provider or the Retina service at the University of Rochester Eye Institute for any questions, or to schedule an exam.

Retina Services

Retina diseases are diagnosed and managed in our state-of-the-art facility that includes digital fundus photography and fluorescein angiography, optical coherence tomography (OCT), and indocyanine green angiography (ICG) to image retinal disease. Specialized tests including Ganzfeld electroretinography (ERG) and multifocal ERG are also available. Together with laser treatment, photodynamic therapy (PDT), anti-vascular endothelial growth factor injections for AMD, and retina surgery, we offer comprehensive care for adults and children.

Retina Conditions Managed and Treated

- Age-related Macular Degeneration
- Diabetic Retinopathy
- Macular edema
- Proliferative Diabetic Retinopathy
- Vitreous Hemorrhage
- Diabetic Retinal Detachments
- Endophthalmitis
- Macular Dystrophies
- Macular Holes/Macular Pucker (epiretinal membrane)
- Retinal Degenerations
- Retinitis Pigmentosa
- Cone-rod dystrophy
- Retinal Detachment
- Retinopathy of Prematurity
- Trauma
- Uveitis



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To schedule an appointment call 585 275-0626 (m-f 8:00 a.m. - 4:30 p.m.) or
585 273-3937 (after hours & emergencies)

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