

How to Detect Macular Degeneration

Expert
Reviewed

Three Parts: [Detecting Common Symptoms of AMD](#) [Getting a Medical Diagnosis](#) [Getting Medical Treatment for AMD](#)

Age-related macular degeneration (AMD) is a chronic retinal disease that causes a slow loss of vision, particularly in people older than 50 years. AMD is currently considered incurable and is the leading cause of vision loss in the elderly population, affecting more than 10 million Americans.^[1] There are two basic types of AMD: dry and wet. About 85% of cases are the dry (atrophic) type, while the remaining 15% are the wet (exudative) type, which involves secretions or leakage from the eye. Early detection of AMD is important because some treatments can slow its progression and preserve vision for a little longer.

Part
1

Detecting Common Symptoms of AMD

1 Don't ignore blurry central vision. AMD symptoms usually develop gradually and without any eye pain, so they may be difficult to detect. The hallmark symptom of AMD is a progressively developing blurred area near the very center of your vision, either in one eye or both.^[2] With time, the blurry central area can grow larger or you may develop dark spots that completely block out any images. On the other hand, peripheral vision is not affected by AMD.

- Objects in your central vision may not appear to be as bright as they used to be — colors can get dull.
- AMD affects only the central part of your vision because that's where the macula is located. The macula is in the center of the retina and needed for sharp vision of objects that are straight ahead.

2 Be alert for strange visual distortions. Another common symptom of AMD is strange visual distortions — objects may appear distorted in shape, or straight lines may look wavy, crooked or bent.^[3] When these symptoms develop, people may think they're hallucinating. Although other eye diseases cause blurriness, only macular disease (including AMD, cystoid macular edema, diabetic macular edema, and others) creates these types of visual distortions.

- Visual distortions associated with advanced stages of AMD make it difficult to drive, read and recognize faces.
- AMD often affects both eyes at the same time, but if only one is affected, it's difficult to notice visual changes because your good eye compensates for the affected eye.^[4]

3 Watch for difficulty adapting to low-light conditions. Another common symptom of progressive AMD is an increased difficulty adapting to low-light situations, such as dimly lit rooms, offices or restaurants.^[5] You might also feel the need for brighter light when reading books or doing work close to your face. If you find yourself or your partner turning on lights much more frequently than before, then it could be a sign of AMD.

- Correlated to seeing things more dimly is perceiving a decreased intensity or brightness of colors. The world tends to take on a darker and drabber look with AMD.
- AMD doesn't affect peripheral (side) vision, so it doesn't cause complete blindness — although people with advanced symptoms are often labelled as legally blind and not allowed to drive a car or operate heavy machinery.

4 Be aware of the risk factors. The cause of AMD is not clearly understood, but a number of risk factors have been noticed, such as: hereditary (genetic) link, advanced age, female gender, cigarette smoking, obesity, cardiovascular disease and Caucasian race (skin color).^[6] Most people with AMD have at least a couple if not most of these risk factors.

- In terms of age, AMD is most common in people older than 65 years.
- Smoking tobacco and being overweight, particularly if you're obese, puts you at much higher risk of AMD. These factors also increase your risk of hypertension and cardiovascular disease, which negatively affect the blood vessels of the eye.

**Part
2****Getting a Medical Diagnosis**

1 See your doctor or eye specialist. If you notice any of the above eye symptoms and they don't go away after a week or so, then make an appointment with your family doctor or eye specialist, such as an optometrist or ophthalmologist. After an eye exam and various tests, they can rule out other common eye diseases, such as retinopathy or cataracts, and give you an idea of what stage the AMD is in.^[7]

- The early stage of AMD doesn't typically cause any vision loss or eye symptoms, which is why regular eye exams are important — especially if you have risk factors for it.
- Early-stage AMD is diagnosed by the presence of yellow deposits (called drusen) underneath the retina.
- The intermediate stages of AMD usually cause some vision loss, but not many other symptoms. This stage is diagnosed by the presence of larger drusen and pigment changes in the retina.^[8]
- For late stage AMD, vision loss is substantial, other eye symptoms are obvious and changes in the macula/retina are significant.

2 Ask about the Amsler grid. In addition to getting a visual acuity test with an eye chart and a dilated eye exam (done with eye drops), your eye doctor may also use an Amsler grid to test for AMD. The Amsler grid is essentially a piece of graph paper with dark lines on it forming a square grid and a dot in the middle — although some versions have white lines drawn on a darker background.^[9] The Amsler grid can help spot the distorted lines and/or blurry vision that are common with AMD.

- Looking at an Amsler grid helps with early detection, which is important because treatment for wet AMD is more successful when done before damage occurs.
- You can download a free Amsler grid from online or pick one up from your ophthalmologist's office to test your vision at home.
- If on your computer, sit about 14 inches away from the screen. Cover each eye and look at the dot in the middle. The surrounding lines should not look blurry or distorted.

3 Consider other diagnostic tests. Other diagnostic test used to help diagnose AMD include fluorescein angiograms (done with a fluorescent dye injected into the eye), and optical coherence tomography or OCT.^[10] OCT is similar to detailed ultrasound imaging, except that it uses light instead of sound. OCT can get high-resolution cross-sectional images of the eye and all the small blood vessels.

- Fluorescein angiography uses a special dye and camera to look at blood vessels in the retina and choroid, which are the two layers in the back of your eye.^[11]
- OCT can provide doctors with images of the eye tissues in real time, which may enable them to diagnose AMD in its earliest stages.^[12]

**Part
3****Getting Medical Treatment for AMD**

1 Take anti-angiogenic drugs. Anti-angiogenic medications are the primary form of treatment for AMD. They are injected into the eye in order to block the development and growth of new blood vessels.^[13] These drugs also help prevent leakage from the abnormal blood vessels already in the eye that cause so-called wet AMD. This treatment has been effective in many patients and some have actually regained their lost vision.

- Anti-angiogenic drugs are injected into the eye at four to 12 week intervals to cause the blood vessels to shrink.^[14]
- After the injections, your doctor may order an angiogram (a special photograph that uses dyes) in order to make sure there's no more leakage from blood vessels.

2 Look into taking nutritional supplements. Researchers have found that taking high doses of certain vitamins and minerals on a daily basis can slow progression intermediate and late-stage AMD.^[15] More specifically, taking a combination of vitamins C and E, zinc and copper can reduce the risk of developing late-stage AMD by about 25%. Adding the antioxidant plant compounds lutein and zeaxanthin may have an even more preventative effect.

- For vitamins, the effective daily doses are 500 mg of vitamin C are 400 IU of vitamin E.

- For minerals, the effective daily doses are 80 mg of zinc oxide and 2 mg of cupric oxide (copper).
- About 10 mg of lutein and 2 mg zeaxanthin each day were found to be helpful also.

Community Q&A

Does having drusen in the eye always mean macular degeneration?



Theodore Leng,
M.D.

Drusen are the characteristic feature of AMD. So if you have drusen in the macula and you are 50 years old or more, we call it AMD. If you are 20 years old and have drusen, you likely don't have AMD and probably have a non-AMD hereditary form of drusen.

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Tips

- Women tend to develop AMD more often and at an earlier age than men do.
- If you are older than 50 and have a family history of macular degeneration, see your ophthalmologist for a comprehensive dilated eye exam at least once a year.
- To reduce your risk of AMD, stop smoking, lose weight and avoid exposing your eyes to UV radiation (wear sunglasses).

Sources and Citations

1. <https://www.macular.org/what-macular-degeneration>
2. https://nei.nih.gov/health/maculardegen/armd_facts
3. <http://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/macular-degeneration?sso=y>

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