



The Big Five Serious Eye Conditions

Age-related Macular Degeneration (AMD)

A common eye disease in older age, AMD affects your central vision.

Normal vision



Central vision loss due to AMD



What is age-related macular degeneration (AMD)?

AMD is one of the most common causes of poor vision after age 60. In fact, it accounts for 90% of new cases of legal blindness in Canada.

The macula is a small area at the centre of the retina in the back of the eye that allows us to see fine details clearly and perform activities such as reading and driving. AMD happens when the "seeing cells" in the macula break down or deteriorate.

The visual symptoms of AMD involve loss of central vision. While peripheral (side) vision is unaffected, with AMD, one loses the sharp, straight-ahead vision necessary for driving, reading, recognizing faces, and looking at detail.

The two types of AMD

Dry AMD

Nine out of 10 people who have AMD have atrophic or "dry" AMD. Dry AMD happens when the macula gets thinner and clumps of waste byproducts accumulate beneath it. This causes you to slowly lose your central vision.

Wet AMD

Exudative or "wet" AMD is less common (affecting I out of I0 people with AMD) but is more serious.

In the wet form of AMD, abnormal blood vessels may grow in a layer beneath the retina. These vessels leak fluid and blood, scarring the macula. This causes a distortion and a large blind spot in the centre of your vision.

Macular Degeneration Normal Wet macular degeneration Dry macular degeneration

What causes AMD?

Macular degeneration appears to be caused by a mixture of genetics, aging, as well as other health and environmental factors.

Risk Factors

Age is the most significant risk factor for developing AMD, but you may be more likely to develop AMD if you:

- Have blue eyes
- Have high blood pressure
- Have heart disease
- Have high cholesterol
- Smoke
- Are overweight
- Frequently eat foods high in saturated fat (e.g., butter, cheese)
- Have a family history of AMD



To help reduce your risk of AMD, try to eat a nutritious diet that includes green leafy vegetables, yellow and orange fruit, fish, and whole grains. Butt out from smoking and try to exercise regularly.

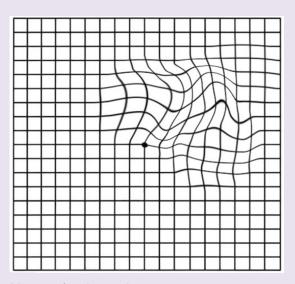


How is AMD diagnosed?

Early AMD changes can be detected at home with the use of an Amsler grid.

You can test your vision with an Amsler grid at https://www.seethepossibilities.ca/innovation/ vision-test/amd.

If the lines of the grid appear wavy, distorted, or missing, the test is abnormal and the finding should be investigated by an optometrist or ophthalmologist.



How an Amsler grid appears to someone with AMD.

Promising AMD research is being done on many fronts. So far, research has resulted in the development of effective drugs to limit the damage from wet AMD and, in many cases, improve vision. Several promising treatments for dry AMD are undergoing clinical trials. In addition, high-intensity reading lamps, magnifiers, and other low-vision aids help people with AMD to maximize their eyesight.

Dry AMD Treatments

Dry AMD usually progresses slowly over many years. Studies do NOT show that the rate of deterioration changes with the use of your eyes for reading and other pursuits. A specific vitamin regimen based on the AREDS (Age-Related Eye Disease Study) has been shown to reduce the rate of people with advanced dry macular degeneration developing wet AMD.

Wet AMD Treatments

Because the "wet" type of AMD can lead to vision loss quickly, treating wet AMD is time-sensitive. Delays can result in poorer outcomes. This is why people with AMD need to check vision in each eye regularly and report changes without undue delay.

Wet AMD is most commonly treated through injections of anti-vascular endothelial growth factor (anti-VEGF) drugs directly into the eye. These drugs are very effective at causing the abnormal blood vessels to become dormant and stop growing and leaking. Regular injections help to prevent recurrence and vision loss. With treatment we expect up to 90% of eyes to stabilize. Up to a third of eyes improve.

About the Canadian Ophthalmological Society

The Canadian Ophthalmological Society (COS) is a national, recognized authority on eye and vision care in Canada. As eye physicians and surgeons, we are dedicated to providing all Canadians with optimal medical and surgical eye care.



See The Possibilities

A resource for the Canadian public on the topics of vision health, serious eye diseases, and what COS is doing to promote eye health for everyone.





