

OPHTHALMOLOGY

Blurred lines

Age-related macular degeneration (AMD) causes irreversible loss of central vision and is a leading cause of visual impairment in the elderly.



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It starts out as a small black spot in one's vision that if untreated, takes over the central visual field, causing problems with reading or recognising faces. Age-related macular degeneration (AMD) occurs when there is damage to the macula, or central part of the retina. It occurs in two forms: wet and dry. Dry AMD is the most common form, with loss of photoreceptors, the retinal cells that capture the image. In wet form AMD, abnormal blood vessels grow under the macula and can cause blisters, retinal pigment epithelium detachment (PED), leakage of serum/fluid or bleeding. These cause a scar to develop in the macula, which results in reduced vision.

Signs of AMD

A major cause of blindness in people over 50, the risk factors are age-related changes in the eye, family history, smoking, obesity and cardiovascular disease. Women, with longer life expectancy, are more likely to develop age-related eye diseases such as AMD, which does not affect peripheral vision (the vision outside the central area of the gaze), but affects the middle of the visual field.

Spotting AMD

If you experience any of the symptoms, see your ophthalmologist. Even with no symptoms, a detailed eye screening should be done once you are past 50, initially and at regular intervals. AMD is detected using these tests:

Dilated eye exam, which involves dilating the pupil with special drops which 'open' the pupil so that the doctor can look into the back of the eye and see if there are yellow deposits



COMMON SIGNS OF AMD

1. Seeing shadows, black spots or having missing areas in the central vision
2. Distorted vision that makes straight lines appear wavy
3. Loss of ability to discern between dark and light colours
4. Haziness or blurred vision

(drusen), the most common signs of early AMD.

Autofluorescence test takes an image of the eye to study the retinal pigment epithelium. AMD can cause changes in this part of the eye, and these can be detected with this examination.

Fluorescein angiography uses a dye which is injected into your vein. It passes through the eye's blood vessels and reveals leaking vessels associated with wet AMD

Grille d'Amsler

and provides a detailed look at the macular blood vessels.

Optical coherence tomography is a non-contact test that uses light to capture images of the macula. It can determine the presence/absence of fluid, retinal thickness and response to treatment.

Treating AMD

There is no cure, but treatment can prevent severe vision loss or slow the progression of the disease. Treatment options for wet AMD include intraocular injection of anti-vascular endothelial growth factors (anti-VEGF) which blocks the development of new blood vessels and stops leakages, and/or laser therapy. These can be carried out singly or in combination.

Another approach is photodynamic laser therapy, a treatment in which a light-activated drug is introduced into the bloodstream, followed by a cold laser to activate the drug so that it treats the abnormal blood vessels. Non-surgical interventions include use of special lenses that enlarge the images of nearby objects.