CONDITION

Wet AMD

Wet AMD is an eye condition in which abnormal blood vessels damage the central part of the retina.

WHAT IT IS
Abnormal macular blood vessels causing central vision damage

BODY SYSTEM
Eyes and vision

MAIN SYMPTOMS
Distorted central vision, blurring, dark patches, muted colours

WHAT CAUSES IT
Age-related retinal changes and abnormal blood vessel growth

HOW IT IS DIAGNOSED
Dilated eye examination, OCT, and sometimes dye angiography

MAIN TREATMENT
Anti-VEGF eye injections

CAN IT BE CURED?
No - treatment can control blood vessel leakage

IS IT AN EMERGENCY?
Sometimes - sudden severe vision loss needs emergency assessment

LONG-TERM OUTLOOK
Treatment often preserves vision, but permanent central loss may remain

Overview

Wet age-related macular degeneration, usually called wet AMD, affects the macula. The macula is the small central area of the retina at the back of the eye. It provides the detailed vision used for reading, recognising faces, driving, and seeing fine details.

In wet AMD, abnormal blood vessels grow beneath the retina. These vessels can leak fluid or blood, causing swelling and damage. Without prompt treatment, scarring may develop in the macula and cause permanent central vision loss.

Wet AMD usually develops from dry AMD, a more common form involving gradual age-related changes in the macula. The change from dry to wet AMD can happen quickly.

The condition does not normally cause pain or redness. It affects central vision rather than

side, or peripheral, vision. It does not usually cause complete blindness, but central vision loss can have a major effect on daily activities.

Treatment is most effective when wet AMD is found promptly. New distortion, blurring, or a dark patch in central vision needs urgent assessment by an eye care professional.

Symptoms

Symptoms may appear suddenly or worsen over days or weeks. They can affect one eye before the other. If your other eye sees well, you may not notice the change straight away.

Possible symptoms include:

Wet AMD does not usually affect peripheral vision. You may still be able to move around independently even if detailed central vision becomes limited.

An Amsler grid is a square grid used to check central vision one eye at a time. New waviness, missing areas, or distortion can signal a macular change. The grid can help with monitoring, but it cannot diagnose wet AMD or replace an eye examination.

- Straight lines looking bent, wavy, or broken
- Blurred or less detailed central vision
- A grey, dark, or empty patch in the centre of vision
- Words or letters appearing missing when you read
- Faces becoming harder to recognise
- Colours looking less bright
- Objects appearing smaller or a different size in one eye

Causes and risk factors

Wet AMD results from abnormal blood vessel growth beneath the retina. A protein called vascular endothelial growth factor, or VEGF, encourages these vessels to form. The vessels are fragile and may leak fluid or blood into the macula.

It is not always clear why one person develops wet AMD and another does not. Age-related changes, genetic factors, and environmental exposures all contribute.

Risk factors include:

Having one or more risk factors does not mean that you will develop wet AMD. It is not directly

passed down in a simple inheritance pattern, although family history can raise risk.

Wet AMD is not caused by reading, using screens, wearing the wrong glasses, or ordinary use of your eyes.

- Increasing age
- Existing dry AMD, especially more advanced macular changes
- Wet AMD in the other eye
- Smoking
- A close family history of AMD
- Certain inherited genetic differences
- Cardiovascular risk factors, such as high blood pressure

Diagnosis

Wet AMD is diagnosed through an urgent specialist eye assessment. An ophthalmologist, a doctor specialising in eye conditions, may begin by asking when your symptoms started and whether one or both eyes are affected.

Your vision is checked using a letter chart. Eye drops are then used to widen, or dilate, the pupils so the retina and macula can be examined. These drops may cause temporary blurred vision and sensitivity to light.

Optical coherence tomography, usually called OCT, is a key test. It uses light to produce detailed cross-sectional images of the retina. OCT can show fluid, swelling, bleeding, or other changes beneath and within the retina. It is painless and does not touch the eye.

Some people also have fluorescein angiography. A fluorescent dye is injected into a vein, usually in the arm, while photographs are taken of the retina. This can show where abnormal blood vessels are leaking. Another imaging test, called indocyanine green angiography, may be used when deeper blood vessels need to be examined.

A routine sight test or Amsler grid may identify a possible problem, but retinal examination and imaging are needed to confirm the diagnosis.

Treatment and management

The main treatment is a group of medicines called anti-VEGF medicines. These block the action of VEGF, reducing leakage and abnormal blood vessel activity.

The medicine is delivered by injection into the eye. Before an injection, the eye and surrounding skin are cleaned, and numbing drops or another local anaesthetic are used. You may notice pressure or brief discomfort, but the procedure is usually quick.

Treatment often begins with a series of injections. Further injections and monitoring are then planned according to the medicine used, OCT findings, and how your eye responds. Many people need treatment over months or years because the abnormal vessels can become active again.

Anti-VEGF treatment often stabilises vision, and some people gain vision. It cannot always restore vision already lost through permanent retinal damage or scarring.

Minor irritation, a blood spot on the white of the eye, or temporary floaters can occur after an injection. Serious complications, such as infection inside the eye, retinal detachment, or a marked increase in eye pressure, are uncommon but need immediate attention.

Other treatments are used less often. Photodynamic therapy uses a light-activated medicine to close certain abnormal vessels. Thermal laser treatment is now uncommon because it can damage nearby retina, but it may have a role in selected cases away from the centre of the macula.

Management may also include:

Vitamin and mineral supplements do not treat active wet AMD. A specific AREDS2 supplement may be recommended for some people with certain stages of AMD, including those at risk in the other eye. It is not suitable or necessary for everyone, so it should be discussed with an eye care professional.

- Regular OCT scans and vision checks
- Monitoring the other eye
- Updated glasses for the vision that remains
- Magnifiers, brighter task lighting, and electronic reading aids
- Low-vision rehabilitation and practical support

Complications

The main complication is permanent loss of detailed central vision. Ongoing leakage or bleeding can damage light-sensing retinal cells and lead to a fibrous scar beneath the macula.

A larger bleed beneath or into the retina may cause a sudden, marked loss of vision. Wet AMD can also develop in the other eye, so new symptoms there need prompt assessment.

Reduced central vision can make reading, driving, managing medicines, cooking, and recognising faces more difficult. It can also increase the risk of falls or make unfamiliar places harder to navigate.

Some people with significant sight loss experience Charles Bonnet syndrome. This causes visual hallucinations, such as patterns, people, or animals, despite knowing they are not real. It is related to reduced visual input and is not, by itself, a sign of dementia or a mental health condition.

Treatment injections have their own uncommon complications. Increasing pain, redness, light sensitivity, or worsening vision after an injection may indicate infection or another urgent eye problem.

Prevention

Wet AMD cannot always be prevented. Age and inherited susceptibility cannot be changed, and the condition can develop despite healthy habits.

Not smoking is the most important modifiable step associated with a lower risk of AMD progression. If you smoke, support from a stop-smoking service can make quitting more manageable.

A balanced diet that includes vegetables, fruit, and fish supports general eye and cardiovascular health. Managing blood pressure and other cardiovascular risks is also reasonable, although these steps cannot guarantee that wet AMD will not develop.

If you already have AMD, regular eye appointments and checking each eye separately can help identify a change to wet AMD sooner. Monitoring does not prevent abnormal vessels from forming, but earlier detection may allow treatment before more central vision is lost.

Do not start high-dose eye supplements simply to prevent AMD. AREDS2 supplements are intended for particular stages of AMD and do not prevent the condition in people without those changes.

Living with it and what to expect

Wet AMD is usually a long-term condition. Anti-VEGF treatment controls abnormal blood vessel activity rather than removing the underlying tendency for it to return. Regular scans and repeated injections may therefore continue for months or years.

Some eyes become stable enough to have longer gaps between appointments. Others remain

active or become active again after a quiet period. Vision may improve, stay similar, or decline despite treatment. The outcome is influenced by how much damage was present before treatment and how the eye responds.

Attend planned appointments even when your vision seems unchanged. OCT can detect fluid before you notice a clear difference. Between visits, check each eye separately if you have been advised to do so.

Central sight loss may require changes at home and at work. Brighter lighting, increased text size, high-contrast labels, voice-controlled devices, and magnification can help. Low-vision services can teach ways to use remaining vision more effectively.

Wet AMD usually leaves peripheral vision intact. Most people do not lose all sight, although severe central loss may affect driving eligibility and detailed tasks. Support is available for mobility, work, emotional wellbeing, and registration as sight impaired where appropriate.

When to get medical help

Seek urgent eye care if you develop new distortion, central blurring, missing areas, or a dark patch in either eye. This is especially important if you already have dry AMD or wet AMD in the other eye. Do not wait for a routine appointment.

Get immediate medical help after an eye injection if you develop:

Sudden severe vision loss, a curtain over the vision, or flashes with many new floaters can indicate another serious eye problem and needs emergency assessment.

Call emergency services if visual change occurs with facial weakness, arm weakness, difficulty speaking, severe imbalance, or another possible stroke symptom.

Routine follow-up is appropriate for stable symptoms, planned OCT monitoring, questions about visual aids, and gradual changes in how you manage daily activities.

- Increasing or severe eye pain
- Marked redness
- Rapidly worsening vision
- Strong sensitivity to light
- New widespread floaters or a curtain-like shadow

Common questions

Can wet AMD be cured?

There is no treatment that permanently removes the tendency for abnormal blood vessels to grow. Anti-VEGF injections can control leakage, protect vision, and sometimes improve it. Continued monitoring is usually needed because activity can return.

Will wet AMD make me completely blind?

Wet AMD mainly damages central vision. Peripheral vision is usually preserved, so it does not normally cause total blindness. However, severe central loss can make reading, recognising faces, and driving difficult.

Are eye injections painful?

The eye is numbed before the injection. You may feel pressure, a brief sharp sensation, or irritation afterwards, but the injection itself is usually quick. Tell the eye clinic if pain increases rather than settles.

How quickly does wet AMD progress?

It can progress over days or weeks, although the speed is not the same for everyone. New waviness, central blur, or a dark patch should be assessed urgently rather than watched at home.

Can glasses fix wet AMD?

Glasses can correct focusing problems, but they cannot repair macular damage or stop leaking blood vessels. Magnifiers, stronger reading aids, improved lighting, and electronic devices may help you use the vision that remains.

Should I take vitamins for wet AMD?

Vitamins do not treat active wet AMD. An AREDS2 supplement may lower progression risk for some people with particular stages of AMD, but it is not recommended for everyone. Your retinal findings determine whether it may be useful.

Sources

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