CONDITION

Uveitis

Uveitis is inflammation inside the eye that can cause pain, light sensitivity, blurred vision, and vision damage.

WHAT IT IS
Inflammation inside the eye

BODY SYSTEM
Eyes and vision

MAIN SYMPTOMS
Eye pain, redness, light sensitivity, blurred vision

WHAT CAUSES IT
Immune inflammation, infection, injury, or unknown causes

HOW IT IS DIAGNOSED
Slit-lamp and dilated eye examinations, sometimes retinal imaging

MAIN TREATMENT
Anti-inflammatory medicines and treatment of any underlying cause

CAN IT BE CURED?
Sometimes - single episodes resolve; recurring forms may persist

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

LONG-TERM OUTLOOK
Often controllable, but recurrence and vision damage are possible

Overview

Uveitis is inflammation inside the eye. It is named after the uvea, the middle layer of the eye, but the inflammation can also affect nearby structures such as the retina, vitreous gel, and optic nerve.

There are several types:

Anterior uveitis is more likely to cause a painful, red eye. Inflammation farther back may cause floaters or blurred vision without obvious redness or pain.

Uveitis matters because untreated or repeated inflammation can damage delicate eye tissues. Early assessment and appropriate treatment can control inflammation and reduce the chance of lasting vision loss.

It may affect one or both eyes. Some people have one episode, while others have repeated attacks or inflammation that continues for months or years.

- Anterior uveitis affects the front of the eye and is sometimes called iritis
- Intermediate uveitis mainly affects the vitreous gel in the middle of the eye
- Posterior uveitis affects the retina or the layer beneath it, called the choroid
- Panuveitis affects the front, middle, and back of the eye

Symptoms

Symptoms can begin suddenly or develop gradually. They may include:

The pattern partly reflects where the inflammation is located. Anterior uveitis often causes pain, redness, and light sensitivity. Intermediate or posterior uveitis may be painless and may mainly cause floaters or reduced vision.

Symptoms can resemble conjunctivitis, migraine, a scratched cornea, or other eye problems. A red eye should not automatically be assumed to be uveitis.

Children can sometimes have inflammation without noticeable symptoms. This is particularly important in children with juvenile idiopathic arthritis, an inflammatory joint condition. They may need planned eye screening even when their eyes seem normal.

- Eye pain or aching
- Redness, often around the coloured part of the eye
- Sensitivity to light, also called photophobia
- Blurred or cloudy vision
- New floaters, which look like dots, threads, or cobwebs
- Reduced side or central vision

Causes and risk factors

Uveitis happens when inflammation develops inside the eye. In many cases, no single cause is found.

Some cases are related to an immune condition. The immune system, which normally protects the body, mistakenly drives inflammation in the eye. Conditions associated with uveitis include ankylosing spondylitis and related forms of arthritis, sarcoidosis, Behçet disease, inflammatory

bowel disease, psoriasis, and juvenile idiopathic arthritis.

Infections can also cause uveitis. Examples include herpes viruses, toxoplasmosis, syphilis, and tuberculosis. The infections considered will depend on your symptoms, health history, immune system, and possible exposures.

An eye injury or eye surgery can occasionally trigger inflammation. Rarely, a medicine or another eye condition may produce a similar picture.

Certain inherited immune features, including a marker called HLA-B27, are associated with some forms of anterior uveitis. This is a tendency rather than proof that uveitis will develop. Most uveitis is not directly passed from parent to child.

Having an immune condition or a previous episode increases the chance of recurrence, but an episode can also occur in someone without known risk factors.

Diagnosis

Uveitis is diagnosed through a detailed eye examination, usually by an optometrist or ophthalmologist. An ophthalmologist is a doctor who specialises in eye conditions and eye surgery.

A slit lamp is a microscope with a bright, narrow beam of light. It allows the examiner to look for inflammatory cells and protein inside the front of the eye. These findings help confirm anterior uveitis.

Dilating drops widen the pupil so the retina, optic nerve, and other structures at the back of the eye can be examined. Eye pressure is also checked because inflammation and some treatments can raise or lower it.

Further testing may include:

There is no single blood test that confirms every type of uveitis. Broad testing without a reason may produce unclear results, so investigations are usually guided by the type of inflammation and any symptoms elsewhere in the body.

- Optical coherence tomography, which creates detailed scans of the retina
- Retinal photography or dye-based imaging of retinal blood vessels
- Ultrasound when the back of the eye cannot be seen clearly
- Blood tests or infection tests chosen according to the examination and history
- Chest imaging when conditions such as sarcoidosis or tuberculosis are suspected

Treatment and management

Treatment aims to control inflammation, ease symptoms, protect vision, and address any underlying cause. The approach depends on which part of the eye is affected and whether infection is present.

Corticosteroids like prednisone or hydrocortisone are strong anti-inflammatory medicines. Anterior uveitis is often treated with corticosteroid eye drops. Inflammation deeper in the eye may require medicine delivered around or into the eye, or treatment taken by mouth.

Drops that temporarily widen the pupil may be used in anterior uveitis. They can reduce painful muscle spasm and help prevent the iris from sticking to the lens. They may temporarily blur near vision and increase sensitivity to light.

Steroid treatment needs monitoring. It can contribute to raised eye pressure, glaucoma, or cataracts, particularly with prolonged use. Eye drops may need to be reduced gradually according to the treatment plan rather than stopped suddenly.

If an infection is responsible, treatment targets that infection. Corticosteroids may sometimes be used alongside antimicrobial treatment, but suppressing inflammation without treating an infection can make some infections worse.

People with recurrent or long-lasting non-infectious uveitis may need medicines that control the immune system. These include conventional immune-modifying medicines and biologic treatments. They are usually managed jointly by eye specialists and, when appropriate, rheumatology or other medical teams.

Surgery does not usually treat the underlying inflammation. It may be needed for complications such as cataracts, glaucoma, persistent retinal swelling, or retinal detachment.

Regular follow-up is part of treatment, even if symptoms improve. Examination and imaging can show whether inflammation remains active and whether treatment is affecting eye pressure or other structures.

Medicines commonly used for this include adalimumab . Which one suits you, if any, is a decision for you and your doctor.

Complications

Many episodes can be controlled without permanent damage. The risk of complications is greater when inflammation is severe, affects the back of the eye, returns repeatedly, or remains active for a long time.

Possible complications include:

Complications can result from the inflammation itself or, in some cases, from treatment. This is why follow-up eye-pressure checks, dilated examinations, and retinal scans may continue after symptoms have settled.

- Cataract: clouding of the eye's natural lens
- Glaucoma: optic nerve damage, often linked to raised eye pressure
- Macular oedema: swelling in the central retina that blurs detailed vision
- Synechiae: abnormal sticking of the iris to nearby structures
- Retinal damage or detachment
- Optic nerve damage
- Permanent reduction in vision

Prevention

Most uveitis cannot be reliably prevented. This is especially true when the cause is unknown or linked to an immune tendency.

If you have an associated inflammatory or infectious condition, keeping it appropriately treated may reduce some risks, although it cannot guarantee that uveitis will not occur.

Protective eyewear can lower the risk of eye injuries during hazardous work, sports, or home projects. It does not prevent immune-related uveitis.

If uveitis has already developed, using treatment as directed and attending follow-up appointments can help prevent inflammation from continuing unnoticed and reduce the chance of complications. Do not change or stop prescribed eye medicines without discussing the plan with the clinician overseeing them.

Living with it and what to expect

A single episode of anterior uveitis may settle over several weeks with treatment. Other forms can take longer to control. Some people never have another episode, while others experience attacks separated by months or years.

Chronic uveitis remains active or repeatedly becomes active over a longer period. It may require ongoing immune treatment and regular eye monitoring, including during periods when your vision feels normal.

Vision often improves as inflammation and retinal swelling settle. Recovery may be incomplete if there is scarring or damage to the retina, optic nerve, or other eye structures. Cataract, glaucoma, and other complications can sometimes be treated separately.

During an active episode, light sensitivity and blurred vision may interfere with reading, screen use, driving, or work. Sunglasses may improve comfort outdoors, but they do not treat inflammation. Avoid driving if your vision is blurred or if dilating drops affect your sight.

Keeping a record of attacks, medicines, and symptoms elsewhere in your body can help identify a recurring pattern. Joint pain, skin changes, mouth ulcers, bowel symptoms, or breathing problems may be relevant to the cause.

Most people continue their usual activities between episodes. Those with recurring or chronic inflammation may need long-term appointments and treatment adjustments to preserve vision.

When to get medical help

Seek urgent, same-day assessment for a new painful or red eye, marked light sensitivity, new floaters, or unexplained blurred vision. This is especially important if you have had uveitis before. Prompt assessment can distinguish a recurrence from other eye conditions that need different treatment.

Contact your eye clinic promptly if symptoms return during treatment, vision worsens, or you develop significant medicine side effects. Do not simply restart old drops unless you have been given a specific recurrence plan.

Seek emergency care for:

Routine follow-up is still important when you feel well. These planned visits check for quiet inflammation, raised eye pressure, cataracts, and retinal swelling.

- Sudden major or complete loss of vision
- A dark curtain or shadow moving across your vision
- Severe eye pain with rapidly worsening vision
- Eye symptoms after a serious injury or chemical exposure
- Blurred vision with severe headache, vomiting, or coloured halos around lights

Common questions

Can uveitis be cured?

Sometimes. A single episode may resolve completely with treatment and never return. Recurrent or chronic uveitis may need long-term control rather than a one-time cure. Treating an underlying infection can remove the trigger in some infectious cases.

How long does uveitis last?

Acute anterior uveitis may improve over days and settle over several weeks, but the time course is not the same for everyone. Intermediate, posterior, or chronic uveitis can continue for months or return over years. Symptoms may improve before the inflammation has fully cleared.

Can uveitis cause blindness?

It can cause permanent vision loss, particularly if it is severe, affects the retina or optic nerve, or leads to complications. This is not inevitable. Prompt treatment and regular monitoring lower the risk and allow complications to be addressed earlier.

Is uveitis an autoimmune condition?

Some forms are immune-mediated and may occur with an inflammatory condition elsewhere in the body. Other cases are caused by infection, injury, or an unknown trigger. Having uveitis does not automatically mean you have a wider autoimmune condition.

Is uveitis contagious?

Uveitis itself is not contagious. Some infections that can cause eye inflammation may be transmissible in particular circumstances, but the inflammation cannot be caught from someone else's red eye.

Can stress cause uveitis?

Stress has not been established as a direct cause. Some people notice attacks during stressful periods, but this does not prove that stress triggered the inflammation. New symptoms still need an eye examination rather than being attributed to stress.

Sources

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