CONDITION

Noninfectious uveitis

Noninfectious uveitis is inflammation inside the eye caused by immune activity rather than an infection.

WHAT IT IS
Inflammation inside the eye not caused by infection

BODY SYSTEM
Eyes and immune system

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

WHAT CAUSES IT
Immune disease, eye injury, medicines, or unknown

HOW IT IS DIAGNOSED
Dilated eye examination, slit-lamp examination, and retinal imaging

MAIN TREATMENT
Corticosteroids and immune-modifying medicines

CAN IT BE CURED?
Sometimes - single episodes may fully resolve

IS IT AN EMERGENCY?
Sometimes - sudden vision loss or severe eye pain

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

Overview

Noninfectious uveitis is inflammation inside the eye that is not caused by a virus, bacterium, fungus, or parasite. It is not contagious.

The condition often affects the uvea, the middle layer of the eye. The uvea includes the iris at the front, the ciliary body behind the iris, and the choroid beneath the retina. Inflammation can also affect nearby structures such as the retina, vitreous gel, or optic nerve.

Uveitis is classified by where the inflammation is found:

Some people have one episode that settles with treatment. Others have repeated episodes or ongoing inflammation. Prompt treatment matters because uncontrolled inflammation can damage delicate eye structures and reduce vision.

- Anterior uveitis affects the front of the eye and is the most common form
- Intermediate uveitis mainly affects the vitreous gel and nearby tissues
- Posterior uveitis affects the retina or choroid at the back of the eye
- Panuveitis affects the front, middle, and back of the eye

Symptoms

Symptoms may begin suddenly or build over days to weeks. They may affect one eye or both eyes.

Anterior uveitis often causes:

Intermediate or posterior uveitis may cause less redness and pain. Blurred vision and floaters may be more noticeable. Floaters are dots, threads, or cobweb-like shapes that move across your field of vision.

Other possible symptoms include reduced side vision, difficulty seeing fine detail, or dark patches in vision. Inflammation at the back of the eye can sometimes be present before you notice clear symptoms.

Eye redness has many causes, including dry eye and conjunctivitis. Uveitis cannot be identified from symptoms alone. A painful red eye, marked light sensitivity, new floaters, or a change in vision needs prompt assessment.

- A red, painful eye
- Sensitivity to light
- Blurred vision
- A small or irregular-looking pupil

Causes and risk factors

Noninfectious uveitis usually develops because the immune system causes inflammation in or around the eye. The exact reason is often not found.

It may occur alongside an inflammatory condition elsewhere in the body. Examples include axial spondyloarthritis, juvenile idiopathic arthritis, inflammatory bowel disease, sarcoidosis, Behçet disease, and Vogt-Koyanagi-Harada disease. Eye symptoms may appear before the other condition is recognized.

Some forms are linked to inherited immune-system features, such as HLA-B27. Having such a feature does not mean that you will develop uveitis.

Eye injury, surgery, and certain medicines can occasionally trigger inflammation. A reaction confined to the eye may also occur without any wider health condition.

Doctors must distinguish noninfectious uveitis from infections that can look similar. This is important because medicines that suppress immune activity can allow an untreated infection to worsen. Rarely, cancers such as lymphoma can imitate uveitis and require separate investigation.

Diagnosis

An ophthalmologist, a doctor who specializes in eye conditions, diagnoses uveitis by examining the inside of your eye. The examination also helps identify which parts are inflamed and how active the inflammation is.

A slit lamp uses a microscope and bright, narrow beam of light to examine the front of the eye. Dilating drops widen the pupil so the retina and other structures at the back can be checked.

Additional tests may include:

There is no single blood test that confirms all noninfectious uveitis. Blood tests and imaging are selected according to your symptoms, examination, medical history, travel, and possible exposures. They may look for an associated inflammatory condition or rule out infections such as syphilis or tuberculosis.

You may be referred to a rheumatologist or another specialist if there are signs of inflammation elsewhere in the body.

- Optical coherence tomography , which produces detailed scans of the retina
- Fluorescein angiography , which uses injected dye and photographs to show leaking or inflamed retinal blood vessels
- Eye ultrasound , especially when inflammation or a cataract blocks the view inside the eye
- Visual-field or eye-pressure tests , depending on the structures affected

Treatment and management

Treatment aims to control inflammation, relieve symptoms, protect vision, and reduce the risk of another episode. The approach is based on where the inflammation is, how severe it is,

whether both eyes are affected, and whether there is an associated health condition.

Corticosteroids like prednisone or hydrocortisone are often used first. These medicines reduce inflammation. Anterior uveitis can often be treated with corticosteroid eye drops. Inflammation deeper in the eye may require an injection around or into the eye, a slow-release implant, or treatment that works throughout the body.

Dilating eye drops may be used during anterior uveitis. They relax the inflamed muscles inside the eye, ease pain, and help prevent the iris from sticking to the lens. They can temporarily blur close vision and increase sensitivity to light.

Long-term or repeated corticosteroid treatment can cause problems, including cataracts and raised pressure inside the eye. Corticosteroid tablets can also affect bones, blood sugar, blood pressure, sleep, and infection risk. Monitoring is therefore an important part of treatment.

If inflammation keeps returning, threatens vision, or requires ongoing corticosteroids, an immune-modifying medicine may be considered. These include conventional medicines such as methotrexate or mycophenolate and biologic medicines that target specific parts of the immune system. They usually take time to work and require blood tests or other safety checks.

Treatment may also be needed for an associated inflammatory condition. Surgery can sometimes treat complications such as cataracts, glaucoma, scar tissue, or persistent clouding of the vitreous gel. Eye inflammation is usually controlled as well as possible before planned surgery.

Do not change or suddenly stop prescribed eye medicines without advice from the team managing them. A change in symptoms may mean that the inflammation, eye pressure, or another eye problem needs to be checked.

Complications

Complications can result from inflammation, scarring, or treatment. The risk is greater when inflammation is severe, affects the back of the eye, continues for a long time, or repeatedly returns.

Possible complications include:

Regular examinations can detect some complications before you notice symptoms. Raised eye pressure, for example, may not cause pain or an obvious change in vision at first.

- Macular oedema , a build-up of fluid in the part of the retina used for detailed vision
- Cataract , clouding of the eye's natural lens

- Glaucoma , damage associated with pressure inside the eye
- Scar tissue that makes the iris stick to the lens
- Retinal or optic nerve damage
- Abnormally low eye pressure after severe, long-standing inflammation
- Permanent loss of part of the vision

Prevention

Many cases of noninfectious uveitis cannot be prevented. There is no proven way to prevent an immune tendency or an unexplained first episode.

Keeping an associated inflammatory condition under control may reduce eye inflammation for some people. Taking medicines as agreed and attending monitoring visits can help prevent avoidable damage from active inflammation or treatment side effects.

If you have had uveitis before, seek assessment promptly when familiar symptoms return. Early recognition may limit inflammation, although it cannot guarantee that complications will be avoided.

Living with it and what to expect

The course differs from person to person. Acute uveitis begins suddenly and lasts for a limited period. Recurrent uveitis returns after symptom-free intervals. Chronic uveitis continues or comes back soon after treatment is reduced.

A single episode of anterior uveitis may settle completely. Other forms require treatment over months or years. Symptoms can improve before all inflammation has cleared, so follow-up is based on eye examinations as well as how your eye feels.

During an active episode, light sensitivity and blurred vision can affect reading, screen use, driving, and work. Sunglasses may make bright environments more comfortable. You should follow professional advice about driving if your vision is reduced or dilating drops are affecting it.

Long-term treatment may involve regular eye-pressure checks, retinal scans, and blood tests. These visits are routine even when your vision feels stable. They help detect quiet inflammation, medication side effects, or complications at an earlier stage.

Many people retain useful vision when inflammation is recognized and controlled. However,

repeated or severe inflammation can cause lasting changes. Low-vision services, workplace adjustments, and visual aids can help if sight loss affects daily activities.

When to get medical help

Arrange urgent eye assessment if you develop a painful red eye, strong light sensitivity, new floaters, or new blurred vision. This is especially important if you have previously had uveitis. These symptoms may indicate a flare, but they can also have other causes.

Seek emergency care for:

These features can occur with retinal detachment, sudden dangerous eye-pressure changes, or serious injury. They should not wait for a routine appointment.

Routine follow-up is still important when you feel well. Attend planned checks for eye pressure, inflammation, retinal swelling, and treatment side effects.

- Sudden or major loss of vision
- A dark curtain or shadow moving across your vision
- A sudden shower of floaters, especially with flashes of light
- Severe eye pain with headache, vomiting, or coloured rings around lights
- Eye symptoms after a significant injury or chemical exposure

Common questions

Is noninfectious uveitis an autoimmune condition?

It is often driven by abnormal immune activity, but it is not always linked to a named autoimmune or inflammatory disease. In many people, inflammation is limited to the eye and no underlying cause is identified.

Can noninfectious uveitis go away completely?

Sometimes. A single episode may resolve with treatment and never return. Other forms are recurrent or chronic and need longer-term monitoring. It may be possible to control chronic inflammation even when it cannot be permanently cured.

Is noninfectious uveitis contagious?

No. It is not caused by an infection and cannot be passed to another person. However, infections can resemble uveitis, so they may need to be ruled out before the condition is classified as noninfectious.

Can stress cause a uveitis flare?

People sometimes notice symptoms during stressful periods, but stress has not been established as a single direct cause. Do not assume new eye symptoms are due to stress; a flare needs an eye examination.

Will uveitis make me blind?

Most people do not lose all vision, particularly when inflammation is treated and monitored. Severe, repeated, or posterior inflammation can cause permanent sight loss through retinal damage, glaucoma, cataract, or macular oedema.

Why do I need appointments when my eye feels normal?

Some inflammation and complications cause few early symptoms. Examinations can identify continuing inflammation, raised eye pressure, cataract, or retinal swelling before you notice a major change.

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