

Pt Info Brochure

Uveitis

Q: What is Uvea?

A: Uvea is the middle layer of the eye. It is the most vascular structure of the eye. It provides nutrition to the other parts of the eye. The uvea is made up of the iris (coloured part of the eye), the ciliary body (ring of muscle behind the iris) and the choroid (layer of tissue that supports the retina). (Fig 1)

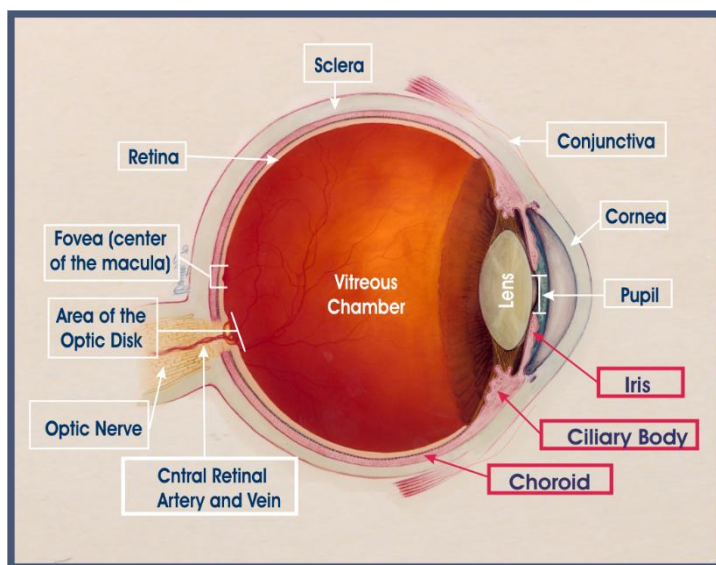


Fig 1. Uvea and its parts

Q: What is uveitis?

A: Uveitis is inflammation (reaction in) of the uvea. Inflammation of the uvea usually causes a red eye, sometimes with cloudy vision, and it may be painful. Uveitis may be caused by an injury, infection or underlying disease. If it is not treated, the eyesight can be seriously damaged.

Q: Who is affected?

A: Uveitis can affect anyone. It particularly affects people of working age but can also occur in children.

Q: Are there different types of uveitis?

A: The type of uveitis depends on which part of the eye is affected:

- **Anterior uveitis:** This is inflammation of the front part of the eye i.e. iris (iritis) or inflammation of the iris and the ciliary body (iridocyclitis). It is the most common type of uveitis, accounting for 75% of cases.
- **Intermediate uveitis:** This affects the middle part of the eye i.e. area behind the ciliary body. It tends to occur in children, teenagers and young adults. However adults can also be affected.
- **Posterior uveitis:** This affects the area at the back of the eye, the choroid and the retina.

- **Pan uveitis:** This affects all the three parts of uvea or the entire uvea.

Q: What is acute and chronic, which the doctor tells me?

A: Acute uveitis lasts for a few weeks and can recur, whereas chronic uveitis lasts for more than three months, with symptoms that can vary from day to day.

Q: How do I know if I have uveitis?

A: If you have uveitis, you will have some or all of the following symptoms.

❖ **Anterior uveitis (iritis)**

Anterior uveitis affects the front of the eye (usually the iris) and is the most common type. Only one eye is usually affected. Symptoms include:

- an aching, painful, red eye. The pain can range from mild aching to intense discomfort,
- blurred or cloudy vision,
- an iris (the coloured part of the eye) that may have a slightly different colour,
- sensitivity to light (photophobia),
- floaters (dots that move across the field of vision), and
- headaches.

These symptoms may develop gradually over hours or days. They may be acute (lasting a few weeks) or chronic (lasting for more than three months).

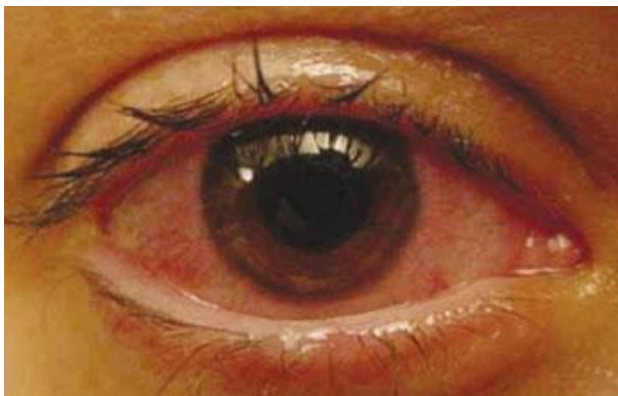


Fig 2. Anterior Uveitis

❖ **Intermediate uveitis**

Intermediate uveitis is the second most common type, affecting the area just behind the ciliary body and part of the retina. **Both eyes tend to be affected and it is usually painless.**

Symptoms can include:

- mild redness (although there is usually no redness),
- floaters (dots that move across the field of vision), and
- blurred vision due to cells from the blood vessels leaking into the gel of the eye.

There is usually no redness or only mild redness associated with intermediate uveitis.

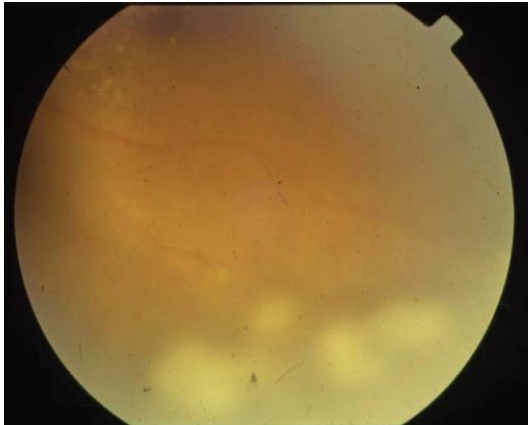


Fig 3. Intermediate Uveitis

❖ Posterior uveitis

Posterior uveitis affects the back of the eye (the choroid) where your blood vessels supply the retina. One or both eyes may be affected and it is usually painless.

Posterior uveitis usually causes decreased vision and floaters, and sometimes retinal detachment. These symptoms are slower to develop and often last longer than those of anterior uveitis.

Posterior uveitis can be more damaging to the eye than other types of uveitis. It sometimes causes visual loss.

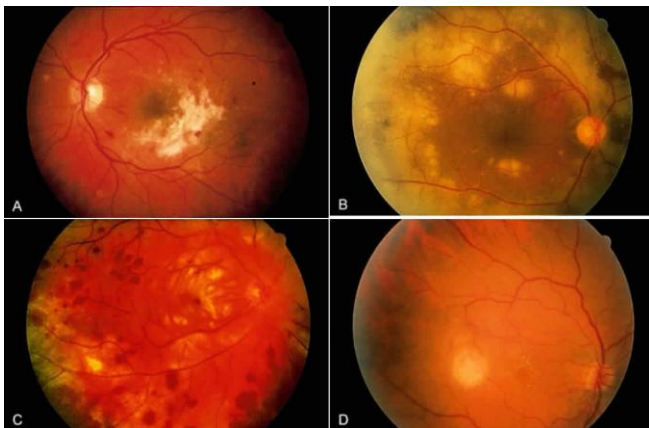


Fig 4. Posterior Uveitis

Q: What is the cause of uveitis?

A: In about 50 % of the cases, we are unable to pinpoint a cause. But it may result from:

- an injury to the eye (traumatic iritis), for example, a squash ball hitting the eye,
- recent or previous eye surgery,
- certain types of infection, or
- a health condition (see below).

Health conditions

Uveitis may be associated with the following conditions:

- **an inflammatory or autoimmune condition** (when the body attacks its own organs), such as arthritis, juvenile rheumatoid arthritis, ankylosing spondylitis (arthritis of the spine), Reiter's syndrome, Behçet's disease, sarcoidosis, psoriasis or inflammatory

bowel disease,

- **a bacterial, viral, fungal or parasitic infection** such as toxoplasmosis, gastroenteritis, tuberculosis (TB), Lyme disease, syphilis or shingles, and
- **an immune-deficiency disease** (when the body's immune system is impaired), such as HIV/AIDS, because this can make you prone to infection.

Q: Your eye doctor tells you probably have tuberculosis, even when you don't have any complaints of tuberculosis?

A: In our developing country, tuberculosis is presumed to be one of the most common causes of uveitis. You may not have any cough and chest involvement. But that does not rule out tuberculosis. You can have only ocular involvement. Some other part of the body could also be involved, which could be picked up on whole body scanning (which is impractical, unless you have other symptoms)

The only way to confirm ocular tuberculosis is taking a sample from you eye for histopathological evaluation, which is not possible in most cases. Hence the doctor has to go by clinical judgement and by your other test reports.

Q: How can uveitis be diagnosed?

A: Your ophthalmologist (eye specialist) will be able to diagnose uveitis based on your symptoms.

- If you have anterior uveitis, the most common type, one of your eyes will be painful and red.
- If you have one of the other, less common types of uveitis, your eye will usually not be painful.

Examination

- The eye is examined with a slit lamp (a microscope designed for eye examination). White blood cells and protein in the eye fluid can be seen through the microscope if you have uveitis. As the light beam passes through the eye, the fluid inside is seen to be hazy instead of clear.
- A light will be shone into the unaffected eye and this will cause both pupils to constrict. If one eye is affected by uveitis, there will be a slight pain in the eye as the pupil constricts.
- There will normally be an examination of the inside of the eye to see if other parts of the eye are affected.
- **Uveitis must be distinguished from conjunctivitis.** Conjunctivitis never affects vision (although it may cause clouding of vision if pus briefly gets onto the cornea) and it does not affect the inside of the eye, just the outside.

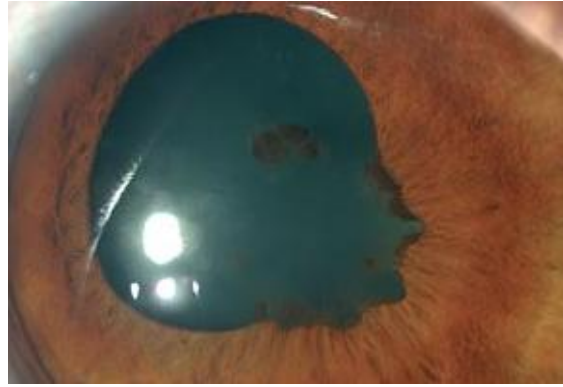
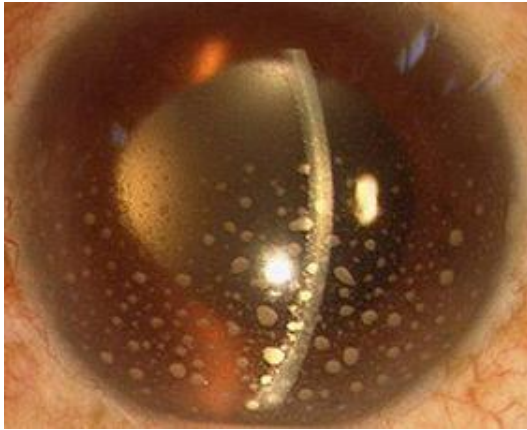


Fig 5. Changes in uveitis

Q: Why did my doctor advise so many expensive blood tests?

A: Blood tests, X-rays and other tests are done to establish the cause of the uveitis. In 50 % cases tests turn out to be normal. These are the cases in which we are unable to find a cause. In such cases an auto immune cause is presumed and treated empirically (just treat the complaints, not the cause). Also before starting treatment, we need to be sure that there is nothing else wrong in the body, which can worsen with our treatment.

Q: How is uveitis treated?

A: Treatment of uveitis will depend on the type of uveitis, how serious it is and the cause. Some cases will clear up with the use of eyedrops. Others may need steroid injections into the eye.

The aim of treatment is to:

- control the inflammation,
- relieve any pain,
- treat any underlying condition, and
- treat any complications that may cause visual loss.

If you have recurrent uveitis, it is important to get it treated quickly. You may be advised to keep steroid eyedrops to hand at all times.

Q: What are the treatment options?

A: The different treatments are outlined below.

1. Mydriatic eyedrops

- a. Mydriatic eye drops, such as atropine, homatropine or cyclopentolate, dilate (widen) the pupil. This helps the eye to heal, prevents the pupil from getting stuck to the lens and decreases the eye pain. Your doctor will advise how often you should use these.
- b. Mydriatic eye drops may cause blurred vision, difficulty focusing and an increased sensitivity to light, but they are a vital part of treatment.
- c. If the condition is diagnosed early and treated with eye drops, no visual loss should occur.

2. Steroid eyedrops

- a. Steroid eyedrops help decrease the inflammation of the iris. They will be used frequently at first and then tapered off, to prevent the uveitis recurring.
- b. Steroid eyedrops may not be used if a virus or bacteria caused the condition.
- c. Since the eyedrops do not go deep into the eye, they are generally used for anterior uveitis or panuveitis only.

3. Steroid injections in the eye

- a. For intermediate and posterior uveitis, steroid injections are given directly inside the eye. The injection is done under local anaesthetic and you can go home on the same day.
- b. They can sometimes cause an increase in eye pressure, retinal detachment or infection in the eye.
- c. However, they do not have any side effects on the body. Hence, preferred in patients in whom there is no contra-indication to steroid injections and steroid tablets are contra-indicated like diabetics.
- d. In some cases of anterior uveitis, steroid injections are given around the eye, which reduces the need to apply frequent steroid eye drops. It is painless and is done under local anaesthetic.

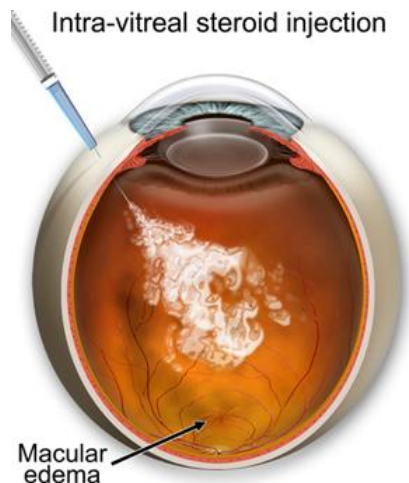


Fig 6. Steroid injection in the eye

4. Steroid tablets (such as prednisolone)

- a. Steroid tablets are given in intermediate or posterior uveitis.
- b. They have the advantage of acting on the causative condition in the body also. However, they have side effects in the body.

5. Intravenous Methyl Prednisolone

- a. In some very severe cases, a high dose steroid drip (methylprednisolone) may be given in hospital.

6. Immunosuppressants

- a. Immunosuppressants are drugs that suppress the body's immune system. Examples are:

- cyclosporine,
- azathioprine, and
- methotrexate

These tablets can be used alongside steroids to treat uveitis in severe and recurrent cases. They take some time to start acting in the body, hence steroid tablets are given as cover for early course of disease, till immunosuppressants take over. They are also used in patients in whom steroids have caused lot of side effects or in whom steroid tablets cannot be given like diabetics, patients with CSR etc.

Also immunosuppressants like steroids have their range of side effects. They too need to be monitored regularly.

Q: Won't the steroid drops, injections or tablets harm me?

A: Yes, they do if not taken under medical supervision. All the above long term treatment have quite a few side-effects on the body and eye. Regular monitoring of side effects as advised by your eye doctor is advisable.

Most of the side effects of steroid tablets like weight gain, excessive hunger, acne, weakening of bones, mood swings etc are reversible on stopping treatment.

Q: What are the complications of uveitis?

A: Uveitis needs to be closely monitored because complications may develop and lead to loss of vision. Possible complications are outlined below.

1. Raised eye pressure and glaucoma
 - a. Untreated uveitis can cause the iris to stick to the front surface of the lens. This prevents fluid draining through the pupil and increases pressure inside the eye. It can lead to visual loss and glaucoma (damage to the optic nerve).
 - b. Raised eye pressure can also be a side effect of steroid eye drops, so it is important to use the lowest possible dose of these.
2. Cataracts
 - a. Untreated uveitis can cause cataracts (cloudiness in your lens that can lead to visual loss).
 - b. Prolonged steroid medication also causes cataract.
3. Macular oedema
 - a. Macular oedema is fluid that collects in a part of the retina called the macula. It can result from untreated posterior uveitis and may lead to loss of vision.

All the complications can be managed by either medications or surgery as advised by your eye doctor.

Q: Will my eye recover completely or will I lose my vision?

A: Uveitis should improve within two to three weeks of treatment. Traumatic uveitis (injury to the eye) usually goes away within a week.

The sooner treatment is started, the quicker the recovery. The length of treatment will

depend on the severity of the condition and how the eye responds to treatment.

Follow-up appointments with an ophthalmologist (eye disease specialist) are essential.

Q: I had a similar episode of uveitis few months back. Why and what to do?

A: This is called recurrent uveitis. If your uveitis is associated with a disease, it may recur. If symptoms of a new episode are recognised quickly, prompt treatment will usually prevent the attack becoming severe.

If a treatable cause of uveitis is found and treated, uveitis will not recur. Otherwise most often than not, uveitis is recurrent depending on the disease. The frequency and duration of recurrence depends on the severity of attack, regularity in treatment etc. Timely intervention can prevent permanent damage to the eye. Recurrent cases generally require immunosuppressives.