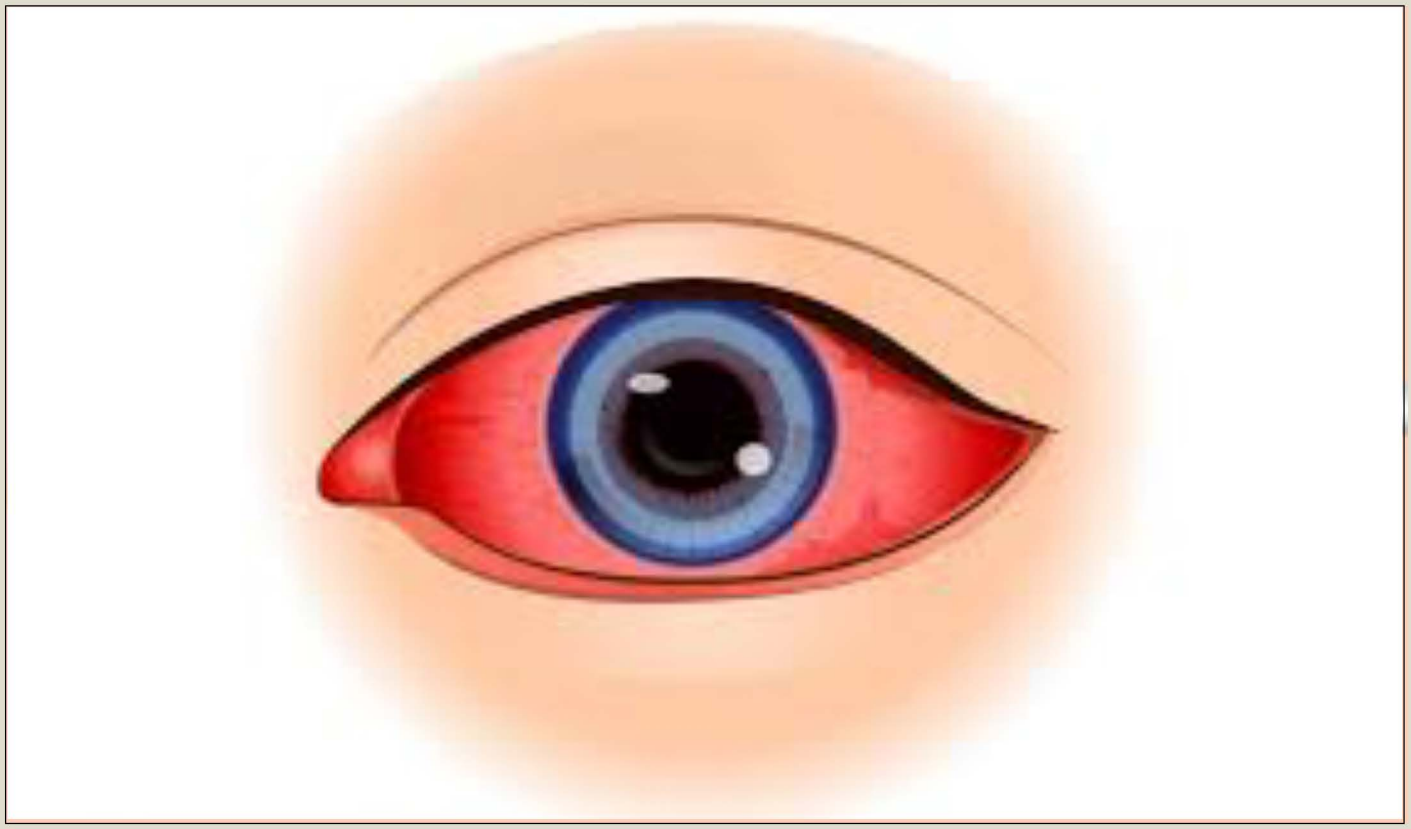
Group of Guidelines Consensus and Education in Ophthalmology®

Uveitis



Uveitis

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If your first language is not English or Arabic we can arrange for an interpreter to be available. Please let us know in advance if you require this service.
This booklet has been designed to help answer some of the questions you and your family or friends may have about Amsler Grid, to explain what is involved. If you have any questions and concerns, please do not hesitate to speak to a doctor or nurse caring for you.

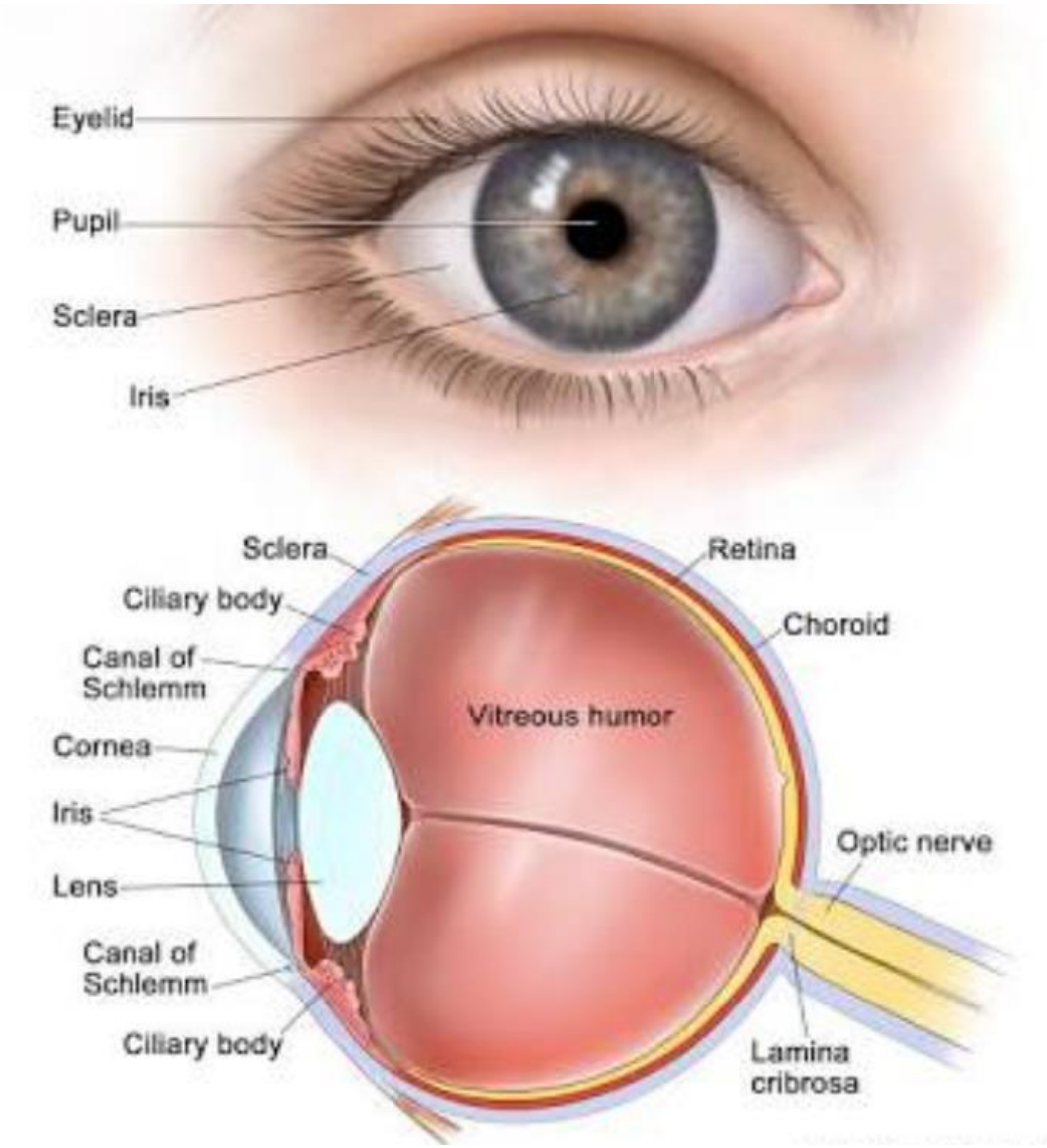
What is uveitis?

Uveitis is an inflammation of one or more of the three parts of the uveal tract.

The eyeball is basically a cavity surrounded by three concentric coats.
The outermost coat is formed of the cornea at the front of the eye, which is a transparent structure that permits light to enter into your eye, and the sclera, that surrounds the cornea and extends all the way to the back of the eyeball. The Sclera is that tough white structure that protects the delicate inner ocular contents from external trauma.
The innermost coat is the retina, which resembles the film of a camera. The images of the objects you see are formed on the retina and are transmitted by the optic nerve to the brain, in order to give them a meaning and significance.

Between the outermost and the innermost coats lies the uveal tract, which is basically formed of fine blood vessels and one of its numerous functions is the delivery of oxygen and nutrients to the ocular tissues.

The uveal tract is divided into three parts: the iris, the ciliary body and the choroid, from the front of the eye and backwards.
- The iris is that part of the eye that gives the eye its colour; it contains muscles that control the size of the pupil according to the ambient light.
- The middle part of the uveal tract is the ciliary body: it is a thickened part that is responsible for production of the fluid that fills the front part of the eye and is known as the aqueous humour.
- The posterior part of the uveal tract is the choroid: it lies beneath the retina and is responsible for its nutrition.



Hence, according to which part of the uveal tract is affected, the uveitis can be divided into:
- an "anterior uveitis": meaning an inflammation of the front part of the uveal tract, if the iris and the anterior part of the ciliary body are inflamed.
- an "intermediate uveitis": meaning inflammation of the middle part of the uveal tract, if the posterior part of the ciliary body is inflamed.
- a "posterior uveitis": meaning inflammation of the rear part of the uveal tract, if the choroid is inflamed. This condition is often accompanied by inflammation of the retina, the retinal blood vessels and the optic disc, which is the beginning of the optic nerve in the eye.
-The fourth type is the "panuveitis" which is the inflammation of all 3 parts of the uveal tract.

What are the symptoms of uveitis?

The symptoms or complaints vary according to the type and the cause of uveitis. Most cases of anterior uveitis, especially in adults, present with severe pain in and around the eye, redness, excessive flow of tears and difficulty opening the eye in face of bright light or even room light.

It is noteworthy, however, that one of the important causes of uveitis in children, known as juvenile idiopathic arthritis, which commonly causes inflammation of the big joints in children younger than 16 years of age, as well as anterior uveitis, peculiarly causes a silent uveitis. The eye of the affected child doesn't show much redness and he does not complain of significant pain either, the fact that renders this particular uveitis most notorious for late diagnosis and the later the diagnosis is made the tougher the prognosis is likely to be.

On the other hand, the most of patients of intermediate uveitis complains of seeing small dots and strings in the front of the eye, these are known as floaters. These affected eyes have collections of cells and debris of inflammation in the posterior part of the eye in the vitreous humour, and the seeing dots and strings are basically the brain projection of them onto the outer space. Sometimes, the patients complain of deterioration of vision, in case they have developed opacification of the lens inside the eye, known as cataract, or collection of fluid in the center of the retina known as macular edema.

The symptoms of posterior uveitis and panuveitis are more dramatic. Typically, the patient complaints of marked deterioration of his vision. With the proper diagnosis and early and appropriate treatment, most of the lost vision can usually be regained.

What are the possible complications if medical advice is not sought early enough or if the condition is not treated promptly as well as appropriately?

The uveitis is one of the eye conditions that should not be taken lightly. Should it be neglected, it can cause cataract (opacification of the lens inside the eye), glaucoma (an elevation of the fluid pressure inside the eye that damages the optic nerve connecting the retina to the brain), edema of the macula (collection of fluid in the center of the retina), different patterns of synechiae (abnormal attachment of two or more structures inside the eye), detachment of the retina and many other complications that can harm the patient's vision.
However, with early diagnosis and a prompt and appropriate treatment plan, most of these complications can be prevented, mitigated, reversed, or corrected.

What are the causes of uveitis?

There is a long list of causes that are incriminated in inducing the uveitis. Major categories include:

1- Autoimmune diseases, where the patient's immune system attacks the body's own tissues. Examples include juvenile idiopathic arthritis and Behçet's disease.

2- Infections, for example toxoplasmosis, herpes viruses and tuberculosis.

3- Some medicines, for example bisphosphonates, used for the treatment of osteoporosis

4- Some vaccines, for example hepatitis B vaccine

5- Trauma to the eye.

6- Surgery or laser therapy of the eye.

What are the available methods of diagnosis and lines of treatment?

The key to a successful treatment is the determination of the cause of uveitis.

In order to achieve that, your doctor will ask you a number of questions related to your condition, then he will conduct an examination using a device that provides him with a magnified illuminated image of the different parts of your eye, known as the slitlamp biomicroscope. He may then request a number of laboratory or imaging tests to aid him determine the cause of your uveitis.

The treatment will be directed to treating the underlying cause of uveitis. And in this respect, there is no universal treatment for all patients with uveitis. An infection, for example, is treated with the specific antibiotic or antiviral medicine, whereas an autoimmune disease is treated with medications that control the erroneous immune behavior against the body's tissues.

The majority of patients benefits from local corticosteroid eye drops and eye drops that relax the muscles inside the ciliary body. This is however not for every uveitis and should be taken only in accordance with the doctor’s prescription.

Does treatment of uveitis include a surgery on my eye?

Conventional surgery is usually not for the inflammation itself, but may be needed to correct a complication. For example, if the inflammation has already been controlled but the cataract is significantly interfering with the patient’s vision, the doctor may decide to remove the cataract surgically.

It is noteworthy though that some cases of uveitis may need local injections of steroids, in or around the eye, to help control the uveitis or to lessen the edema of the macula.

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References

This leaflet was edited by specialist ophthalmologists from the GCEO Group® who are licensed in the EU and the Middle East. This leaflet was edited based and in accordance to the guidelines of the:

- The American Academy of Ophthalmology (USA) - Preferred Practice Pattern Guidelines:

https://www.aao.org/about-preferred-practice-patterns

- The Royal College of Ophthalmologists (UK):

https://www.rcophth.ac.uk/standards-publications-research/clinical-guidelines/

- National Institute for Health and Care Excellence (UK):

https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-guidelines

- The International Council of Ophthalmology:

http://www.icoph.org/enhancing_eyecare/international_clinical_guidelines.html

More resources:

The American Academy of Ophthalmology (USA) - Eye Health A-Z:

https://www.aao.org/eye-health/a-z