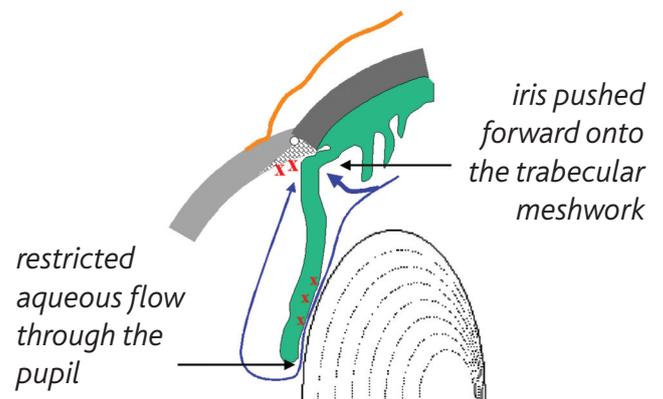


Primary Angle Closure Glaucoma

What is glaucoma?

This is the name given to a number of eye conditions in which the pressure within the eye rises and the optic nerve is damaged where it leaves the back of the eye. In the normal healthy eye, fluid (aqueous) is constantly being produced and drained so that a normal pressure (intraocular pressure) is maintained.

This allows the eye to function well, keep its shape and give nourishment to the eye. The fluid drains from within the eye through a sieve-like structure called the trabecular meshwork at the junction between the iris and the cornea. Intraocular pressure rises when there is reduced drainage, for various reasons, leading to a build-up of fluid.



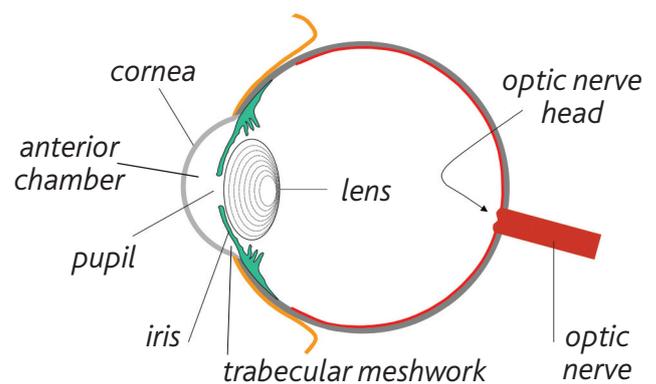
Chronic angle closure

Primary angle closure

The flow of fluid in the eye passes through the pupil into the front part of the eye (anterior chamber) and exits through the trabecular meshwork which is located between the iris and cornea.

Some eyes have a shallow anterior chamber and narrow angle due to the iris and lens being close to the cornea. This is often found in people with smaller eyes or who are long-sighted (hypermetropic).

Examination with a hand-held contact lens (gonioscopy) can reveal a narrow drainage channel that is at a risk of closing completely. A laser treatment called a peripheral iridotomy can be performed to help prevent angle closure.



Structure of the eye

1. Acute angle closure attack

This is when the drainage angle is completely and abruptly blocked and a sudden rise in intraocular pressure occurs. This is known as an attack of acute angle closure.

Symptoms can include:

- Intense pain in and around the eye (often a dull, boring ache like toothache) that can be sore or tender to the touch
- Redness of the eye
- Blurred or reduced vision
- Headache
- Nausea or vomiting
- Seeing halos around lights
- The pupil is enlarged and does not constrict when the light is shone into the eye

People over the age of 40 years are slightly more prone and it most often happens at around 50 to 60 years of age but can occur at any age and in both men and women.

This condition must be treated quickly by an ophthalmologist (eye doctor) as a rapid rise in pressure can cause permanent damage to the vision. The first line of treatment is:

1. Repeated Pilocarpine eye drops which constrict the pupil and help to open the drainage angle.
2. A medication called Acetazolamide that quickly reduces the amount of fluid produced (by injection or tablet/capsule)
3. Eye drops - e.g. beta blockers to reduce the pressure and steroids to reduce the inflammation.
4. If these measures fail emergency laser treatment 'iridoplasty' is sometimes used to reduce the eye pressure.

Once the intraocular pressure in your eye has reduced, it will be necessary to perform laser treatment called a peripheral iridotomy. This is usually performed on both eyes, to prevent an attack to the unaffected eye. Local anaesthetic eye drops are used and the procedure is carried out in the out-patient department. The laser beam creates a small hole in the iris that allows the fluid to circulate within the eye via a different route and the iris then lies further back and the drainage system opens up.

If left untreated the pressure remains high and will cause irreversible damage to the optic nerve and permanent loss of vision. If there is a cataract forming in the eye it is often beneficial to remove this, as the lens becomes thicker and again can push the iris forward, closing off the drainage system. Sometimes a cataract extraction is done instead of the laser iridotomy. Some medications have the risk of precipitating acute angle closure glaucoma. These include:

- Motion sickness medication
- Antihistamines
- Decongestants
- Asthma medication
- Some antiparkinson drugs
- Some antidepressants (tricyclic antidepressants)
- Some nebulised drugs for asthma
- Antispasmodics e.g. medication for irritable bowel syndrome etc.

However if you have angle closure and have had a laser iridotomy or cataract operation, then there is very little risk in taking these medications.

You should always read the leaflet which comes with your medication and, if you have angle closure glaucoma, ask the advice of your ophthalmologist about the balance of risks involved in taking these drugs. DO NOT stop medications without seeking advice, as this can also be harmful.

2. "Sub-acute" attack

A person may suffer mild sub-acute attacks with symptoms of blurred vision, halos around lights and transient headaches without the full-blown attack. These indicate that further investigation is necessary. These may be resolved spontaneously after sleep but can recur.

It is important to seek advice before a full blown attack and possible damage occurs.



Printed: November 2016
Review date: November 2019



For more information

Please call: **01233 64 81 70** or email: info@iga.org.uk to receive free copies of:

- Glaucoma A Guide
- Glaucoma and your Relatives
- Ocular Hypertension A Guide
- Eye Drops and Dispensing Aids

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A full list of references is available on request.

Formed in 1974, the IGA has the mission to raise awareness of glaucoma, promote research related to early diagnosis and treatment and to provide support to patients and all those who care for them. Funded entirely by its members and donors (no government or statutory funding) the Association provides its services free of charge to anyone in need of assistance.

If you found this leaflet helpful and would like to support our work, please contact us on 01233 64 81 64 or visit www.glaucoma-association.com to make a donation or become a member (benefits: quarterly magazine, invitations to patient meetings, support research).

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