

Patient and Carer Information

Angle Closure Glaucoma & Laser Treatment

What is Glaucoma?

The optic nerve carries images from the retina (light-sensitive layer at the back of the eye) to the brain, allowing you to see (see figure 1).

Glaucoma is the name given to a group of conditions that cause damage to the optic nerve where it leaves the eye.

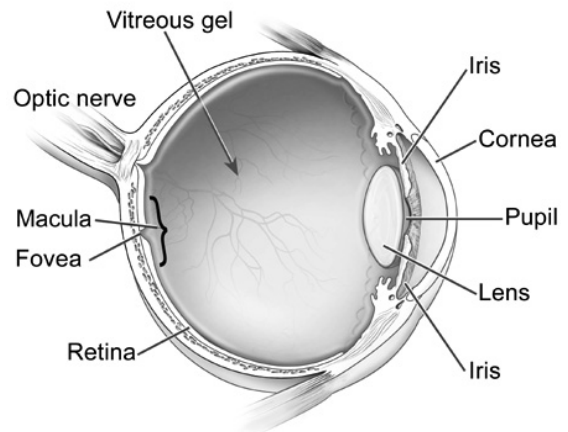
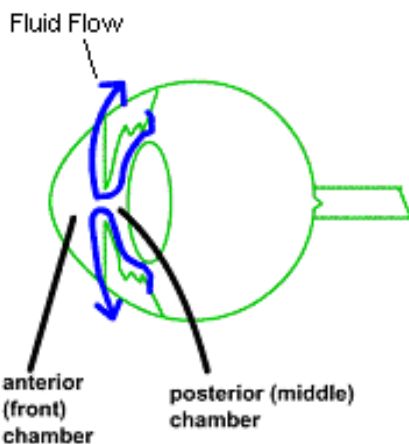


Fig 1

What is Eye Pressure?



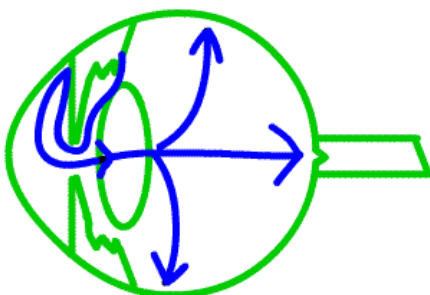
Your eye is partly filled with a watery fluid, called 'aqueous'. The aqueous is produced by a gland behind the iris.

Normally, fresh fluid is released during daylight hours, it flows forward through the pupil into the front chamber (see figure 2), and leaves the eye in a special drainage system. From the drain, it flows into the blood stream.

It has nothing to do with tears, which cover the front surface of the eye only.

Fig 2

Why does the eye pressure increase?



If the fluid cannot drain out of the eye, the pressure inside the eye increases (see figure 3). This is like a tyre being pumped up and going a little 'hard'.

The extra pressure then presses on the optic nerve at the back of the eye.

The optic nerve takes messages about what you can see, to the brain. If the nerve is damaged your sight becomes reduced.

Fig 3

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What is Angle Closure Glaucoma?

If you have angle closure glaucoma, your eye (especially the front chamber) is smaller than normal. A blockage develops, shown on figure 5 below.

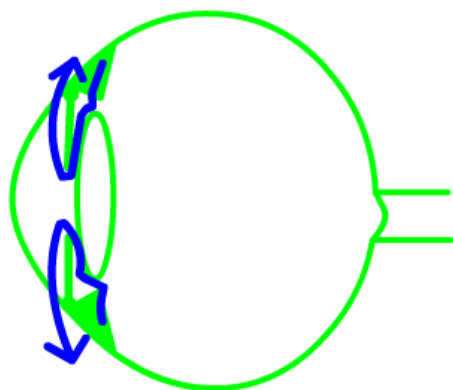


Fig 4: A normal eye; fluid drains out

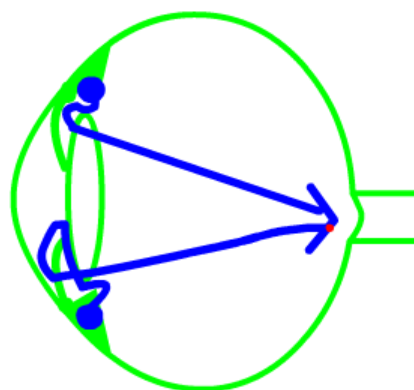


Fig 5: Shorter than average eye

As a result there is not enough space for the aqueous fluid to flow to the front chamber of the eye, and then out of the eye. In addition, the fluid pushes the iris (the pupil) even further forward, trapping more fluid in the eye. This increases the eye pressure and damages the optic nerve.

Symptoms: What you see and feel

If your Ophthalmologist thinks you have or may develop angle closure glaucoma:

- Without laser treatment you may develop an ‘attack’ of acute glaucoma. This is when your eye may become red, misty and painful over a few hours. Laser as described below will completely prevent this.
- Your sight may become worse from a type of glaucoma that develops over years. Laser helps to prevent this, but occasionally you may require eye drops in the future.

Laser Treatment

Laser is a type of very bright, focussed light.

The laser is used to make a tiny hole in the iris (coloured part) of your eye see figure 6, the hole is invisible to the naked eye.

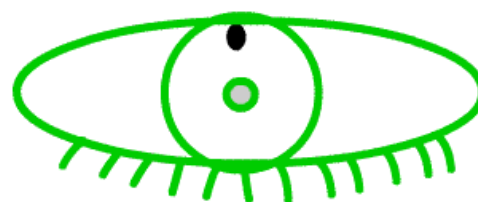


Fig 6

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Once the hole is made, fluid can flow through to the front chamber and then out of the eye (figure 7).

This keeps the eye pressure down.

Occasionally the laser only goes half way through the iris and you may need the hole completed a week or two later.



Fig 7

Laser Treatment Procedure

- You will require drops to make your pupil small. These may give you a headache.
- You will be asked to sit at the laser machine. Drops are used to anaesthetise (numb) the front of your eye.
- A small contact lens will be placed on your eye.
- When the laser is used, you may feel a slight pain, lasting a second or less.
- After the procedure, tablets are sometimes used to keep the eye pressure down for the first day. These tablets can make you experience 'pins and needles' in you finger and toes.
- You will need anti-inflammatory drops for a week, as well as your regular glaucoma drops if you have any.

After the laser

- Your sight may be slightly blurred but this will recover completely after a few days.
- There may be discomfort for a few days which should be relieved by painkiller tablets such as paracetamol. Please contact the ophthalmology if there is extensive pain or loss of vision.
- Continue your regular glaucoma drops unless otherwise instructed.

Ophthalmology Department. Open within the hours of 9.00am – 5.00pm Monday to Friday (tel. 01423 553195 or 01423 553423)

To contact NHS 111 by telephone, dial 111

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If you require this information in an alternative language or format (such as Braille, audiotape or large print), please ask the staff who are looking after you.