



York and Scarborough
Teaching Hospitals
NHS Foundation Trust

Angle closure disease and laser treatment

Information for patients, relatives and carers

Department of Ophthalmology

① For more information, please contact:

The Eye Clinic

Telephone: 01904 726758

York Hospital, Wigginton Road, YO31 8HE

or

The Eye Clinic

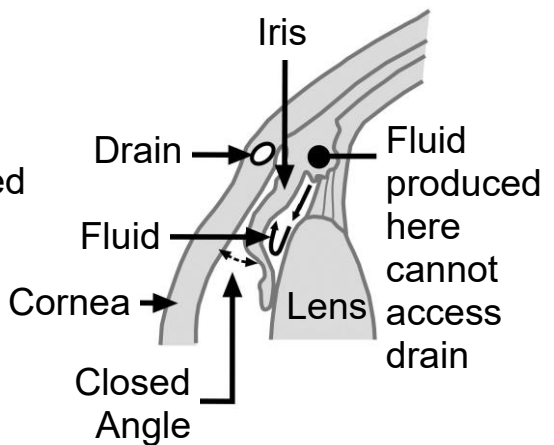
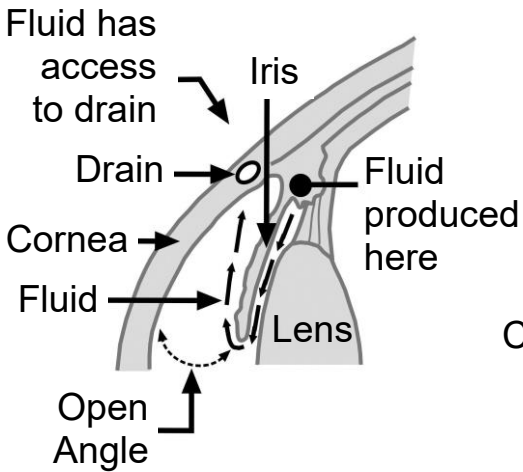
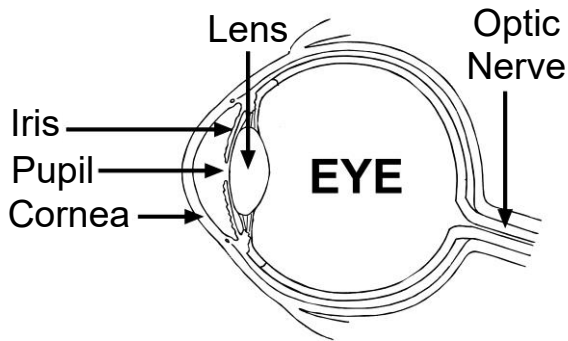
Telephone: 01723 342818

Scarborough Hospital, Woodlands Drive, YO12 6QL

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What is a narrow angle?

In order for your eye to maintain its normal eye pressure, fluid (aqueous humour) within your eye is constantly being produced. It then must drain away in the front chamber of the eye between the coloured part of your eye (the iris) and the clear window in front of it (the cornea). Where these structures meet is called the anterior chamber angle. If this angle is too narrow, the fluid cannot drain, and the eye pressure can increase.



Your optic nerve carries information from your eye to your brain. High eye pressure can cause damage to this nerve and cause visual loss (glaucoma). Visual loss usually affects your peripheral vision (the sides of your vision more so than the centre).

As we grow older the natural lens within the eye grows thicker and takes up more space in the eye. This can sometimes contribute or cause a problem with narrow angles, by pushing the iris forward.

Primary angle closure suspect

A primary angle closure suspect is a person who has narrow angles but no sign of high eye pressure or glaucoma damage. These patients do not need treatment unless they have additional risk factors.

These extra risk factors are also known as PACS plus criteria. Please inform your clinician if any of these apply to you:

1. Very long sighted (glasses prescription more than +6 dioptre).
2. Family history of narrow angle glaucoma.
3. Only one good seeing eye.
4. Needing pupil dilating eye drops regularly e.g. diabetic patients for retinal screening.
5. Living in a remote area away from access to eye care e.g. working on an oil rig.
6. Taking antidepressants, regular antihistamines and certain other medications.
7. Vulnerable adults who may not be able to report their symptoms.

If you do not have any additional risk factors, you may not require any treatment, but it is important that you see your own optician regularly - once a year, or sooner if you develop any of the symptoms listed on page 8.

There are some medications which can make this problem worse. These can include some over the counter medications. Read the information with any new medication before you take it and if it says you should be cautious if you have glaucoma this is likely to mean it may cause problems for people with narrow angles. In this instance consult your optician or ophthalmologist.

Primary angle closure

A patient with primary angle closure has narrow angles and high eye pressure but no signs of glaucoma. In addition to laser peripheral iridotomy, surgery to remove the eye's natural lens (early cataract surgery) can be offered if the eye pressure is particularly high. Often eye drops to lower eye pressure are required.

Primary angle closure glaucoma

A patient with primary angle closure glaucoma has narrow angles which have caused characteristic damage to their optic nerves (glaucoma). This can occur slowly over time without symptoms, can give mild symptoms from time to time or can be very sudden (acute) and cause severe symptoms.

Depending on the specific patient, treatments may include laser peripheral iridotomy, clear lens extraction, eye drops and glaucoma surgery.

What are the symptoms of angle closure?

You may have no symptoms at all.

You may develop intermittent minor symptoms. If these are new, contact the eye department so we can arrange to see you sooner. Or if you have been discharged, go to see your optician.

- Eye ache/frontal headache, especially in low lighting situations (e.g. when sat in a dimly lit room watching TV).
- Intermittent misty vision.
- Occasional haloes around lights.

An acute attack of glaucoma is caused by an excessive build-up of pressure within your eye, and this is an emergency and would give the following symptoms:

- Intense eye pain.
- Nausea and vomiting.
- A red eye.
- A headache.
- Blurred vision.
- Haloes around lights.

If you experience these severe symptoms, contact the eye clinic immediately on 01904 726758 (both York and Scarborough patients), if during normal working hours. If out of hours (including weekends) telephone 01904 631313 and ask switchboard for the eye doctor on call.

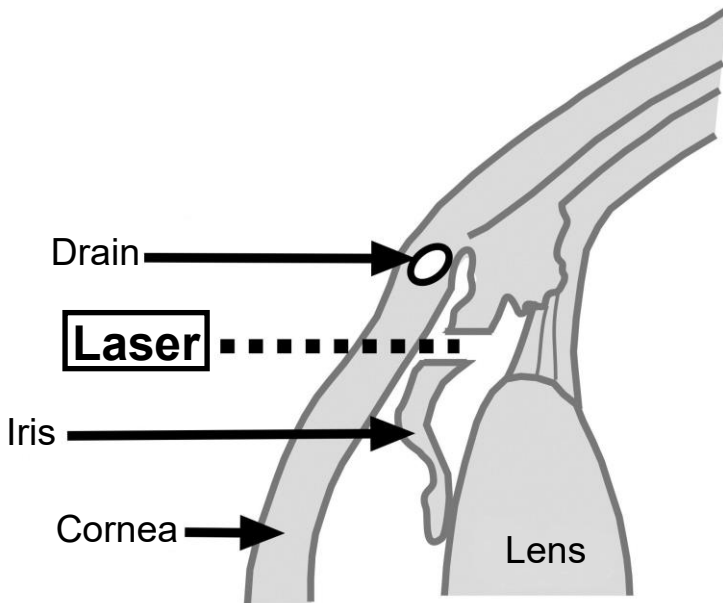
How will we manage your angle closure emergency?

Emergency treatment can include frequent eye drops, tablets and sometimes injecting medicine to reduce the eye pressure. You will be closely monitored to ensure that your eye pressure is improving, and your condition is settling.

Once it is possible to do so, you will be offered laser peripheral iridotomy. Other types of laser treatment or surgery may be required in some cases. You will be given further information about other treatments if they are appropriate for you.

Laser peripheral iridotomy (PI) - how does the laser procedure work?

The laser is a type of very bright focused light, which in this case is used to make a small hole (iridotomy) in the iris at the edge. This forms a permanent passage through which fluid can flow and pushes the iris tissue backwards allowing better access to the drainage channels.



What happens during the procedure?

The laser treatment takes place in the outpatient department.

Please ensure you do not drive to your appointment.

You can expect to be in the eye clinic for up to two hours.

A nurse will check your vision and put some drops into your eye to make your pupil smaller. These drops might cause a temporary headache and can take up to one hour to work. If it has not been done at your previous appointment, a doctor will take your written consent and explain further if you have any questions.

Once seated in front of the laser machine, which looks similar to the microscope you will have been examined on in our clinic, you will have anaesthetic drops put in to numb the front of your eye. A special lens will then be placed against the front surface of your eye. This is not painful but might feel a little strange. During the laser you might see some flashes of light and hear clicking noises. You might still feel a slight pain that feels like a mild zap or pins and needles feeling during performing the procedure, lasting a second or less.

The procedure takes approximately ten minutes.

What can I expect after the procedure?

You may be asked to wait about one hour, after which time your eye pressure will be checked before you leave the hospital.

You should not drive for at least six hours as the drops that make the pupil smaller can affect your peripheral vision.

You may be given tablets (called acetazolamide) to keep the eye pressure down for the first day. These tablets can make you experience 'pins and needles' in your fingers and toes and you may find you need to wee more.

You will be given anti-inflammatory eye drops, told how often you should use them and how long you should use them for.

Continue to use your regular glaucoma drops unless you have been instructed otherwise.

Your sight may be slightly blurred but should 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 eye clinic if there is extensive pain or loss of vision.

An appointment will be arranged, usually in around four to six weeks following the procedure, to check it has been effective.

What are the benefits of this procedure?

This treatment is to prevent a sudden (acute) rise in pressure within your eye for patients at high risk (angle closure). Without having this treatment such patients are at risk a sudden eye pressure rise, which can lead to accelerated permanent damage to eyesight.

Are there any risks?

- A rise in eye pressure that may need medication.
- Inflammation inside the eye is common for a short time following the procedure until the eye settles. You will be given drops for this.
- Pain that feels like a zap or pins and needles during the procedure (done with topical anaesthesia).
- Transient blurring of vision due to bleeding at the laser site, which normally resolves itself within 48 hours.
- Rarely, increased issues with glare, which is usually transient and resolves within a few weeks to months.

- Sometimes the hole we make is not big enough or can scar or close. This would require further laser treatment or additional treatment (lens extraction/ cataract surgery).
- A bleed in your eye which usually goes away quickly. Sometimes requires further management or postponing the procedure.
- Rarely, double/blurred vision because of light passing through the hole. Could take up to a year to settle down.
- Rarely, sequelae macular oedema (waterlogging of the central part of the back of the eye) that would require further management.
- Rarely, possible acute angle closure (sudden narrowing at the front of the eye).

What is the success rate?

In about one in four (25%) of cases, the angle may not open. Depending on the situation, further treatment may be needed.

Are there any alternatives?

Surgical lens extraction.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

The Eye Clinic, York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726758.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:
www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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