

Information for patients and carers

Laser Iridotomy

Decorative graphic at the bottom of the page consisting of three horizontal, wavy bands of blue color, with the top band being a lighter shade of blue and the bottom band being a darker shade.

What is a laser iridotomy?

Laser iridotomy is the first line treatment for patients with acute angle closure glaucoma, or patients who are at high risk of developing this.

Angle closure glaucoma occurs when the canals that drain the fluid out of the eyes (the trabecular meshwork) become blocked by the iris (the coloured part of the eye) moving forwards, resulting in an increased pressure in the eyes as the fluid cannot drain.

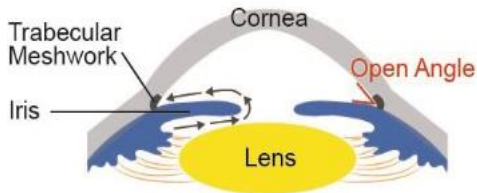
Laser iridotomy is a procedure that uses a laser, which is a highly concentrated beam of light, to make a tiny hole in the iris, usually under the area of the upper eyelid. This pushes the iris back again, unblocking the drainage channels. The hole is not visible to the naked eye.

Why do I need a laser iridotomy?

Angle closure glaucoma (also known as narrow angle glaucoma) is a condition where you have an increased intraocular pressure (in the eyes) that can lead to pain, optic nerve damage and possible vision loss. It can occur suddenly as an acute attack, or it may present gradually and sometimes can be intermittent. This can compromise the health of the optic nerve causing visual decline which often times can happen without the person knowing about it until it is very advanced.

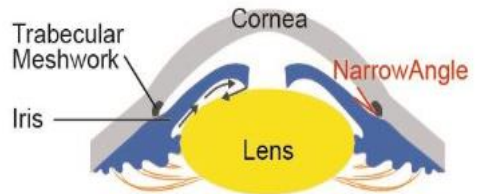
The aim of this treatment is to preserve your sight – if it is performed at an early stage there are high chances of treating the condition, however performing the procedure at a later stage can still help stop or slow progression of the condition.

Normal eye



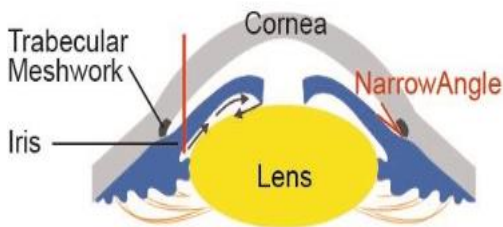
An eye with an open angle. The fluid drains out of the eye through the pupil into the trabecular meshwork (illustrated by the black arrows)

Eye with a narrow angle



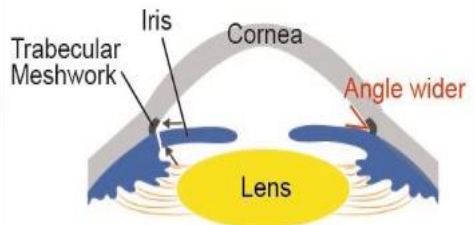
An eye with a narrow angle prevents fluid being drained through the trabecular meshwork, resulting in an increased pressure in the eye.

Laser iridotomy



Laser beam makes a hole in the iris, invisible to the naked eye

After iridotomy



Eye after laser iridotomy: fluid flows through the iridotomy (hole in the iris) equalising the pressure on both sides

Side effects and complications

A laser iridotomy is a safe procedure and unexpected problems are rare.

Some temporary side effects which may occur are:

- Blurred vision following treatment; however, this should quickly settle
- Inflammation and bleeding in the eye due to the laser, these are quite short-lived side effects, and the doctor can give eye drops to help with the inflammation
- A temporary increase in eye pressure due to the laser causing some of the pigment in the iris to leak out. This should go back to normal quite quickly, and the doctor will check your eye pressure to make sure it is satisfactory before you go home
- Some patients may notice a glare and dazzle in their vision; however, this generally becomes less noticeable over time but equally it can persist and cause discomfort in bright lights.
- Laser Iridotomy is mostly for prevention but is a cure for acute glaucoma. However, some patients still need further intervention if it fails to treat acute glaucoma which is often surgery and includes lens extraction which is the commonest procedure performed for such cases.

Some less common side effects are:

- Burns to the cornea at the front of the eye (rare)
- Cataract formation in the lens of the eye (rare)
- Damage to the macula (the area for central vision) at the back of the eye (very rare)

What will happen if I don't have this procedure?

The aim of this procedure is to avoid the consequences that can occur if the canals that drain the eyes become fully blocked, such as pain and vision loss.

An alternative to the laser iridotomy treatment is surgery to remove the lens in the eye, which can be considered especially in relatively older adults in the presence of a cataract or when laser is not considered suitable

Please note that laser Iridotomy is not the ultimate treatment for angle closure glaucoma and a few patients despite having this procedure may still need a lens extraction as laser may not suffice in every case.

How to prepare for the procedure

The appointment may last 2-3 hours.

You will not be able to drive home after the treatment, so please arrange transport.

Because a small amount of bleeding may occur at the laser site, patients on warfarin should have had a recent blood test confirming an INR in their normal range and should bring their yellow book with them.

Please let us know if you are taking any other blood thinning medication when you attend your appointment.

You must take all other medications as normal on the day of your appointment unless instructed not to.

You may eat and drink as normal.

What will happen on the day of the procedure?

When you arrive, your vision will be checked before you are given some eye drops. One of the eye drops will help your pupils to constrict (go smaller in size); in addition, you will be given some local anaesthetic eye drops to numb your eyes, making the procedure painless.

During the procedure you will be seated in front of a machine similar to that which is used to examine your eyes. The doctor will apply a contact lens to the surface of your eye which will help the doctor to be able to clearly see the iris. The laser procedure will then be carried out to make a small hole in the iris; this will not be painful however you may feel some discomfort.

Some patients with a thick, dark-coloured iris may need 'pre-treatment' with a different type of laser.

Both eyes are usually treated at the same appointment. The iridotomy procedure generally only takes about 10 minutes per eye; however, your appointment will last for longer than this. This is because of the time taken before the procedure to prepare the eyes for the treatment, and the time following the procedure where the doctor will check the eyes to ensure the pressure is satisfactory and not too high.

What will happen afterwards?

After your treatment, it is normal to have some blurred vision and mild discomfort for a few hours, your vision should become clearer as the effect of the eye drops wears off. You may get a headache which can be due to the eye drops used to constrict your pupil.

You will be given some anti-inflammatory eye drops (usually a steroid) to use for about a week to reduce any inflammation caused by the laser. You can continue with all your daily activities as normal following the procedure, however we do recommend that you do not drive on the same day as the procedure.

Although the treatment is very successful, sometimes the opening in the iris made by the laser may not be big enough or it may heal up. If this is the case, the doctor will ask you to come back again for a further iridotomy procedure.

What problems should I watch out for?

It is normal to have some blurred vision and mild discomfort following the procedure, however if you experience any of the following, contact the hospital immediately:

- Excessive pain
- Loss of vision
- Flashing lights
- Your eye becomes increasingly red

Contact details

Should you require further advice or information please contact Ophthalmology telephone triage service: **01257 245346**.

Monday to Friday 9.00am to 4.30pm

If you feel that your eye condition needs an urgent assessment outside of these hours, please attend the nearest Emergency Department

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.accessable.co.uk

www.patient.co.uk

www.lancsteachinghospitals.nhs.uk/veteran-aware

<https://bepartofresearch.nihr.ac.uk/>

www.glaucoma-association.com

Lancashire Teaching Hospitals NHS Foundation Trust is not responsible for the content of external internet sites.

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team. If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or join our reading group please contact on email address:

patientexperienceandinvolve@LTHTR.nhs.uk

Department: Ophthalmology

Division: Surgery

Production date: October 2025

Review date: October 2028

JR 1387 v1