Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Laser peripheral iridotomy v2

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Laser Peripheral Iridotomy

Patient Information

Glaucoma Service - Ophthalmology Department

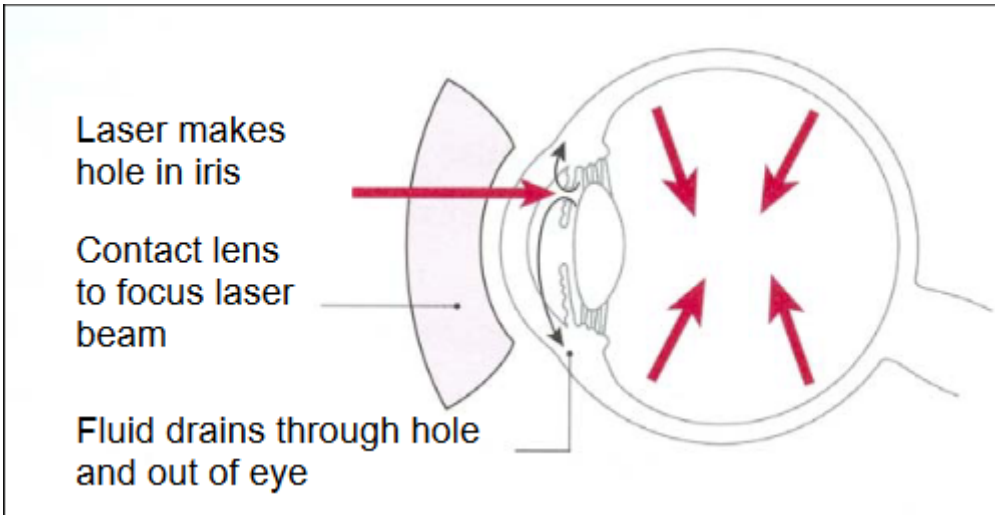
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Introduction

This leaflet is for patients with angle-closure glaucoma or at risk of angle-closure glaucoma, who have been recommended laser peripheral iridotomy as a treatment.

What is laser peripheral iridotomy?

Laser peripheral iridotomy is a procedure used in the treatment of patients with angle-closure glaucoma, or as a preventative measure in people who are at risk of angle-closure glaucoma. “Angle-closure” refers to a narrowing of the drainage channel within the eye, resulting in high pressure inside the eye (intraocular pressure). (Explanation is given here) This high pressure inside the eye can cause damage to the optic nerve, which can result in a type of vision loss known as glaucoma. Laser peripheral iridotomy uses laser energy to create a small hole in the iris (the coloured part at the front of the eye) to help open the drainage angle and treat or prevent angle-closure glaucoma. This hole is not visible to the naked eye.



This forms a permanent passage through which fluid inside the eye can flow through and pushes the iris tissue backward, thus unblocking the drainage channels. Aqueous humour is a completely different fluid to your tears – they will not be affected by the operation.

This procedure is normally done in both eyes, unless the concerned clinician decides the procedure is beneficial to only one eye & that will be explained to you before the procedure & at the time of taking consent.

Benefits of treatment

The laser treatment aims to prevent raised intraocular pressure and reduce the risk of vision loss from glaucoma. If the procedure is performed at an early stage of the disease, there is a 66–75% chance of “curing” the condition. If used at a later stage, it may help slow or stop progression of the disease. In advanced cases, medication and/or surgery may be necessary in addition to laser treatment.

Side effects and complications

Generally, laser peripheral iridotomy is a very low-risk procedure. The most common adverse event is a temporary rise in intraocular pressure. This will be detected by measurements taken before and after the procedure. The likelihood of pressure rising is related to the severity of the disease. Approximately one in ten people in the early stages of the disease experience some pressure rise. In advanced cases, one in three may be affected. The rise in pressure may last from hours to weeks. If it occurs, it is treated with medication.

Inflammation can also occur following the laser procedure. This can be treated with anti-inflammatory drops used for a week (see below).A small amount of bleeding from the laser hole (inside the eye) is fairly common, and can cause misty vision which usually settles within 24 hours. Patients taking warfarin to reduce blood clotting should have had a recent blood test (within one week) confirming an INR of less than 3.0.

Please tell us if you are taking warfarin and bring your yellow book with you. Around a quarter of all patients undergoing laser iridotomy notice a small change in their vision. In the majority of cases, the vision returns to normal within a month. Some patients notice a permanent change in their vision. Research has shown that “ghosting” around objects (11%), shadows (3%) and lines (1%) were the most frequently-noticed visual symptoms. Some patients also report experiencing glare. The risk of vision loss or the need for urgent surgery following the procedure is extremely rare (around 1 in 5,000). If you develop persistent misty vision, or pain in the eye, please contact **Boston House, Eye clinic during 9am to 5pm on weekdays or attend A&E department at Wigan infirmary after 5pm and weekends.**

Are there alternatives to laser treatment?

Surgical lens extraction (a procedure which is technically identical to cataract surgery) is another treatment for angle-closure. Lens extraction surgery has a higher risk of permanent vision loss compared to laser peripheral iridotomy, although the risk is still low (less than 1 in 1000). For this reason, lens extraction is usually only recommended for patients who are already developing visual problems from cataract, or for patients who are unlikely to benefit from laser treatment.

Patients who choose not to have laser peripheral iridotomy, or lens extraction treatment, risk developing angle-closure, or deterioration of established angle-closure, which can result in high pressure in the eye and loss of vision from glaucoma. Observation only is a reasonable option for patients who do not have high pressure in the eye or other signs of damage from angle-closure and we would recommend having regular reviews by a local optometrist.

Some patients with this condition also develop a long-term (chronic) rise in their eye pressure. In this case, you may need drops or other treatments in the long-term to keep your eye pressure within safe limits.

What do I need to do to prepare?

You don’t need any special preparation as this is an outpatient treatment as day case, you can eat and drink as normal. You must take your eye medication as normal on the morning of the laser treatment (unless instructed not to).

You are strongly advised not to drive on the day & bring somebody with you.

What will happen on the day?

Present your appointment letter at the Clinic Reception desk where you will be booked into the Clinic. The Nurse will check your distance vision so please bring your distance glasses with you.

You will have pilocarpine drops put in both eyes by the nurses after vision check, to make your pupils smaller before the laser procedure is carried out.

Please note, the pilocarpine drop often causes a mild headache, and may affect the vision, for example by altering the focus of the eye, and making things appear darker and more blurred than usual. These effects are normal and temporary.

You will have an eye examination under an eye examination microscope & pressure in the eye will be measured. You will be asked to sign a consent form outlining the risk and benefits of the procedure (as detailed in this information leaflet).

The procedure takes place in a room separate from the clinic, and you can bring a friend or carer with you (they will have to wear protective glasses, which are provided). The laser treatment is given through a standard eye examination microscope (slit lamp) connected to the laser machine. You will have some anaesthetic drops put in the eyes just before the procedure. These often cause a slight tingling or stinging for a few seconds. A contact lens is used to improve the doctor's view and prevent the eye from closing. It is important not to move while having the procedure. The vast majority of patients manage to keep still without any problems. A bright white light is shone into the eye to allow the doctor to see where the treatment is being applied. This can cause the vision to be dimmed for up to 30 minutes afterwards.

During the procedure you can hear a soft clicking noise, and feel a very short pricking sensation. While most people do not experience any sensation apart from the flicking, the treatment is

occasionally uncomfortable for a small number of patients.

Occasionally the laser beam opening is incomplete, or not big enough. This will be discovered either after your treatment, or on your follow-up visit. If this is the case, we will have to repeat the treatment at a later date.

Aftercare

Routinely, you will need to use either prednisolone 1% (Pred Forte) / Dexamethasone 0.1% eye drops four times a day for 1 week, or depending upon the eye condition you may need to use them until you are seen in clinic for a check-up. Usually you don't need any Glaucoma medication after the procedure & the doctor will advise to stop the medication you are using. But sometimes you are advised to continue to use your normal glaucoma medication for both eyes depending on what the doctor says.

You are strongly advised not to drive on the day of Laser procedure, as your vision will be blurred for few hours after procedure till the effect of the drops wears off. You can resume your normal daily routine activity after the laser treatment.

You can drive from the next day if you don't have any other problems and provided that your vision is normal for driving standards.

Advice after Laser treatment

You can carry out all routine work as normal. No restriction of any activity unless been advised by doctor.

- If you experience discomfort, take painkillers e.g. paracetamol (No more than 8 in a 24 hour period).

- Your vision may be disturbed for up to 24 hours following the laser treatment e.g. whilst the eye drops wear off.

- You may be aware of floaters in your vision. These should settle over the next few weeks.

- If you experience pain, redness or loss of vision please contact **the Eye Unit between 9am to 5pm Monday to Friday. Out of hours, contact your doctor or A&E.**

- If you are on eye drops for any other eye problem please continue to take them as advised.

Eye Services – telephone 01942 822244



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