

Information for Patients

Argon Laser Peripheral Iridoplasty

What is Argon Laser Peripheral Iridoplasty?

Argon laser peripheral iridoplasty can be performed to treat angle closure glaucoma when other laser treatments cannot be performed or have failed to effectively treat the condition. It is also commonly used to treat plateau iris syndrome. In acute angle closure glaucoma the watery fluid called Aqueous Humour is unable to pass into the front chamber of the eye and then drain satisfactorily. This fluid is then trapped behind the iris pushing it forward onto the delicate drainage system, called the trabecular meshwork, which restricts the flow of aqueous further so that the pressure within the eye goes up.

The pressure can rise to very high levels quite quickly in an acute attack and this can damage the nerve at the back of the eye and lead to loss of vision. Prompt treatment could reverse this but can leave reduced vision in that eye. Symptoms might include headaches, severe eye pain, blurred vision and watering, as well as nausea and vomiting.

Angle closure glaucoma can occur as the pupil (black part of your eye) dilates and comes into contact with the lens behind, so that the aqueous humour can no longer pass into the front chamber of the eye. This is most likely to happen in eyes that are smaller because the space between the structures is narrower, and the lens in the eye gets thicker with increasing age. Longsighted people (people who need glasses for reading) and people with smaller eyes are at risk as are some ethnic groups and people with more unusual shaped iris (coloured part of your eye) such as a plateau iris.

How does it work?

The aim of argon laser peripheral iridoplasty is to open up the drainage angle of the eye so that aqueous humour can flow through as normal. This should prevent or treat angle closure glaucoma and help to lower intraocular pressure. This is achieved by applying a laser beam to the iris, pulling it out of the angle and thinning it a little.

What should I do before the procedure?

The procedure will be carried out in one of our laser treatment rooms and you will need to stay in the outpatient clinic for around half a day. It is essential that you continue to use your eye medication as prescribed before the procedure and also on the morning of the treatment, unless you have been instructed otherwise. There are no special preparations so you can eat and drink as normal before your treatment.

What to expect on the day of treatment

Your doctor will first ask for your consent regarding the treatment and then proceed to check the pressure in your eye. You will be given some more eye drops to both protect your eye from a rise in intraocular pressure and to make your pupil smaller as this makes the iris tighter and the procedure more successful. You will also have an anaesthetic drop to numb your eye.

The machine that is used to carry out the procedure looks very similar to the slit lamp microscope used to examine your eyes in clinic and the treatment usually takes around 10 minutes to complete.

A special lens will be held to the surface of your eye that will allow your doctor to get a better view of the structures and drainage channels inside your eye. Some patients find the laser being applied to the iris causes mild discomfort or stinging.

What happens after the procedure?

Once the treatment is complete your doctor will want to see you again approximately an hour later to check the pressure in your eye. For a few hours after your treatment it is normal to experience some slight discomfort in your eyes. You could also feel that your vision is slightly blurred; however this should clear up by the following day. If the discomfort persists then you might wish to take pain relieving medication, for example Paracetamol, to relieve this discomfort. **If you are already taking pain relieving medication for a different condition, continue with these, but do not take both.**

Your eye might also be a little red from the lens used at the time of treatment and a little bit red or sore the following day as it can sometimes become inflamed. You will be given some drops to use that will control any inflammation and help to relieve discomfort. If any of these symptoms worsen or your vision does not improve then we suggest you call for advice on the numbers below. You will be given a follow up appointment to assess how your eye has responded to the treatment and this usually takes place within two weeks following your treatment. This should be given before you leave the hospital.

The doctor should also clarify any changes to your current medication plan. It is important to stress that any medication you are taking for your untreated eye is continued as usual unless you are told otherwise.

Are there any risks or side effects of this treatment?

- It is possible for the pressure in your eye to increase immediately after the treatment. In order to prevent this we put in some eye drops before and immediately after the treatment. A pressure rise would normally be detectable within an hour of the laser treatment so we can give you any additional treatment at the time.
- There is a very small risk that your pressure might not respond to the treatment and could require further treatment, or that it will cause a change or reduction in your vision.
- It is very rare for there to be excessive inflammation with pain and redness that doesn't settle with the drops.
- The treatment might not be enough to open the drainage angle or control the intraocular pressure and further intervention could be required.
- It is possible for the pupil to be slightly larger or less round after the procedure, though this generally settles down.

Contact Information

Contact us immediately if you have:

- Loss of vision
- Your treated eye becomes increasingly red or painful

Glaucoma specialist nurse (0161) 701 4819 (Answer phone available)
Monday - Friday 8.00am to 6.00pm

If you are unable to contact a member of the team and you require urgent advice please telephone the Emergency Eye Department from 8.00am to 9.15pm every day on (0161) 276 5597. Outside of these hours, contact Ward 55 on (0161) 276 5512, available 24 hours a day.