

Having selective laser trabeculoplasty (SLT) treatment for glaucoma

Department of Ophthalmology

Information for Patients

Produced: November 2020

Review: November 2023

Leaflet number: 1092 Version: 2

What is selective laser trabeculoplasty (SLT)?

There are a number of treatment options available to lower the eye pressure (intraocular pressure) in open angle glaucoma (OAG), including intraocular pressure lowering eye drops, laser and surgery.

Selective laser trabeculoplasty (SLT) is one laser option for lowering intraocular pressure (IOP) for patients with OAG in the early stages or patients with raised IOP without glaucoma.

How does SLT work?

The main drainage system of the eye is called the trabecular meshwork (TM). The TM helps to drain fluid that is made in the eye, out of the eye. However, in OAG this system is partly blocked or not working properly.

The laser treatment is aimed directly at the TM to improve drainage through it. The treatment works by using short pulses of low energy laser to target melanin rich cells in the TM, leaving the surrounding tissue intact. These melanin rich cells, which usually help protect the eye, can block or narrow the TM.

The aim of this treatment is to cause a chemical response from the body, which increases the drainage of fluid from the TM. This then lowers the IOP.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals
To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

Is this the right treatment for me?

SLT not only can lower the IOP in the eye but can also help to keep your IOP more stable. For example, when a person has an unstable IOP, they may have a high IOP at one clinic visit, and the next visit the IOP is low. This variability (fluctuation) has shown to be a risk factor for glaucoma becoming worse.

SLT treatment may be suitable for you if:

- you cannot manage to use your eye drops.
- your eye drops are causing side effects or an allergic reaction.
- your eye drops do not help with your symptoms.
- your IOP needs lowering more and eye drops are not an option to do this.

How successful is SLT treatment?

Studies show that SLT can lower IOP by up to 30%. This is a similar result to the most common type of eye drop used for glaucoma.

The response to SLT treatment may take up to 3 months to take effect.

Studies show that after a single treatment, SLT has worked (with no more SLT treatment being needed) in up to 40 to 60% of patients.

Although the effect of SLT can wear off with time, the treatment can be repeated. However, the response to the treatment may not be as much as with the first treatment.

Are there any risks or side effects from this treatment?

SLT laser has been safely used over 20 years, however, there may be uncommon side effects. These include:

- Blurred vision - your vision will look blurry for up to 24 hours after your treatment, but this should settle. As with any laser treatment, there is also a very small chance (1 in 10,000) of losing some of your vision or of losing your vision completely. If you think that your vision is not returning to normal, please go to Eye Casualty.
- High IOP - it is possible for your IOP to increase straight after the treatment (1 in 20). If this happens, you will be given more eye drops. It is rare (1 in 10,000) that if the eye drops do not lower the IOP, you may need surgery.

- Inflammation in the eye (1 in 20).
- Eye pain (1 in 20) - you will be given anti-inflammatory eye drops and if you have any pain, you must start the eye drops.
- Little or no effect - if the treatment does not lower your IOP, you may need more eye drops or surgery.

Stopping your eye drops before treatment

Certain eye drops work in the same way as SLT treatment and so you **may** be asked to stop these eye drops for at least 4 weeks before your SLT treatment and not use them after the treatment. Your doctor will explain this to you.

The eye drops you may be asked to stop are:

- latanoprost (Xalatan/Monopost)
- bimatoprost (Lumigan)
- tafluprost (Saflutan)
- travoprost (Travatan)

What happens on the day of treatment?

Please make sure you are not driving after the procedure.

The treatment takes place in the outpatient department. A member of staff will check your vision and then you will be seen by an eye doctor who will put some IOP lowering drops into your eye. The doctor will also take your written consent and give you a chance to ask any questions.

Once seated in front of the laser machine, which looks similar to the microscope you will have been examined on in clinic, you will have anaesthetic drops put in to numb the front of your eye. These will sting, but only for a short time.

It is very important for you to:

- Be seated comfortably with your chin in the chin rest and forehead pressed against the forehead band of the machine.
- Stay relaxed and still during the laser procedure. Any movement might defocus the laser and it may not work as well as it should.
- A special lens (with 'cold' gel on it) will then be placed against the front surface of your eye. This is not painful, but you may feel a little pressure. During the laser treatment, you might see some flashes of light and hear clicking noises.

- Some patients might feel slight discomfort during the treatment. The procedure takes 10 to 15 minutes per eye.
- The doctor will put some more pressure lowering drops into your eye at the end of the treatment and will re-check your eye pressure 30 to 60 minutes later.

What happens after treatment?

You will be sent home with a prescription for anti-inflammatory eye drops, which you should only use if you have any discomfort in your eyes.

We will make an appointment for you to come back to clinic, usually 2 weeks later. This follow-up appointment is to check your eye pressure and that your eye is settling. Further follow-up will then be decided at this time.

What to do if you have any concerns

If you want to talk about the procedure in more detail or have any other queries that cannot wait until your appointment please contact us:

- **Leicester Royal Infirmary** - 0116 258 6864
- **Rutland Memorial Hospital** - 01572 722 522

If you think you may have a problem after your treatment, contact the Eye Casualty Department on **0116 258 6273** or go to the **Eye Casualty Department** located in Windsor Eye Clinic, Level 1, Windsor building, Leicester Royal Infirmary:

Opening times: Monday to Friday, 8.30am to 4.30pm

Weekends & Bank Holidays, 8.30am to 12.30pm

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਸਿ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।

Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk



LEICESTER'S
RESEARCH ★

Leicester's Hospitals is a research active trust so you may find research happening on your ward or in your clinic. To find out about the benefits of research and become involved yourself, speak to your clinician or nurse, call 0116 258 8351 or visit www.leicestersresearch.nhs.uk/patient-and-public-involvement