

INFORMATION FOR PATIENTS

Selective Laser Trabeculoplasty (SLT)

The aim of this information sheet is to help answer some of the questions you may have about undergoing Selective Laser Trabeculoplasty. It explains the benefits and risks of the procedure as well as what you can expect when you come to hospital. If you have any concerns, please do not hesitate to speak to a doctor or nurse caring for you.

Glaucoma

Glaucoma is a group of conditions where the increased pressure inside the eye causes damage to the optic nerve, resulting in reduced vision

What is Selective Laser Trabeculoplasty (SLT)?

- Also known as Selective Laser Trabeculoplasty, SLT is a simple, effective laser procedure that reduces the intraocular pressure associated with glaucoma. It is performed by your ophthalmologist, and typically involves short treatment duration.
- SLT works by selectively placing a very low energy light burn on damaged cells in the trabecular meshwork (responsible for draining fluid out of the eye), while not affecting the surrounding structures.
- SLT is an alternative or additional treatment for patients who cannot correctly use or tolerate glaucoma medication, or when the intraocular pressure is still too high despite medication.

How does it work?

SLT uses short pulses of low-energy light to target the melanin, or pigment in specific cells located in the draining angle of the affected eye. In response, the body's natural healing mechanisms go to work to rebuild these cells. This rebuilding process improves drainage and lowers intraocular pressure.

The surrounding non-pigmented cells – as well as the rest of the eye structure- are untouched and undamaged.

Does SLT hurt?

No. SLT is painless. Some patients complain of a slight ache afterwards, but this settles.

What happens during the procedure?

- This procedure is carried out in the clinic and takes a short time.
- You will be seated in front of the laser machine, which looks similar to the microscope used to examine your eyes in clinic.
- Local anaesthetic drops are used to numb the front of the eye and a special contact lens is then placed on the surface of the eye. This is not painful but may feel strange.
- During the treatment you may hear clicking noises and see flashing lights. Most patients tolerate this treatment well, but a few may feel some slight discomfort.

What happens after the procedure?

- Your vision will be blurred immediately following the procedure for a short period, so you cannot drive home afterwards.
- You will have a post-operative appointment a few weeks later.
- It can take up to three months for SLT to have its full effect on the eye pressure.
- If you were using anti-glaucoma eye drops before SLT, you should continue using them unless the doctor says otherwise.
- Some patients may be given anti-inflammatory drops for one week after treatment.

Are there any side effects?

SLT is a safe procedure, and the risk of adverse effects is minimal, but you need to be aware of the following information:

- Some patients may not respond well to treatment (up to 20%) and it is not possible to predict who will respond.
- The benefits of treatment may wear off in time. It is thought that about half of all treatments stop working after five years, but SLT can be repeated. When repeated the laser may not be as effective as the initial application.
- You may experience some redness, eye discomfort or blurry vision after the procedure for a short time – a few hours or sometimes a few days. This will gradually resolve on its own.
- Occasionally the pressure in the eye may increase immediately after the treatment and you may require extra eye drops following your treatment for a short time.
- Rarely the pressure in the eye can become very high and does not come down with medication so surgery may be required to lower the pressure.

If you experience **any** of the symptoms below any time after your treatment, please telephone the ophthalmic emergency contact number on 01623 622515, extension 3317, or go to your nearest Emergency Department:

- Increasing redness of your eye.
- Excessive pain, or pain that gets worse.
- Loss of vision.

If you require general information, please contact the glaucoma patient pathway coordinator on 01623 622515, extension 2359.

Further sources of information

NHS Choices: www.nhs.uk/conditions

Our website: www.sfh-tr.nhs.uk

Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

King's Mill Hospital: 01623 672222

Newark Hospital: 01636 685692

Email: sfh-tr.PET@nhs.net

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email sfh-tr.PET@nhs.net.

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you. External websites may be referred to in specific cases. Any external websites are provided for your information and convenience. We cannot accept responsibility for the information found on them. If you require a full list of references (if relevant) for this leaflet, please email sfh-tr.patientinformation@nhs.net or telephone 01623 622515, extension 6927.

<p>To be completed by the Communications office Leaflet code: PIL202603-03-SLB Created: April 2022 / Revised: March 2026 / Review Date: March 2028</p>
--

**Information reproduced with permission from Nottingham University
Hospitals**