

Selective Laser Trabeculoplasty (SLT)

Information for patients, relatives and carers

Ophthalmology Department

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Introduction

This leaflet is for patients undergoing Selective Laser Trabeculoplasty.

Why am I being offered Selective Laser Trabeculoplasty (SLT)?

SLT is first line treatment to lower eye pressure in some types of glaucoma and ocular hypertension. It can improve the drainage of fluid out of the eye. Other treatment options are eye drops or surgery.

How it works

The trabecular meshwork are pores around the edge of the iris and is where fluid within the eye drains out. This meshwork is treated directly with the laser to improve drainage through it.

SLT uses short pulses of relatively low-energy light to target only the drainage channel of the eye. This gentle laser treatment induces a response from the body in which white cells are released to clear the affected cells and rebuild the meshwork so that it again functions effectively, reducing the intraocular pressure (IOP).

Essentially, your body's own healing response (activated by SLT) helps lower the pressure in your eye.

The SLT treatment procedure

Treatment takes place in the outpatient department. A nurse will check your vision and put some drops into your eye to prevent the pressure spike. These drops might cause a temporary headache/brow ache and can take up to one hour to work. A clinician will take your written consent and will explain further if you have any questions.

Once seated in front of the laser machine, which looks like the microscope you will have been examined on in clinic, you will have anaesthetic drops put in to numb your eye. A special lens will then be placed against the front surface of your eye. This is painless. During the laser treatment, you might see some flashes of light and hear clicking noises. Most patients tolerate the laser treatment well, but some might feel slight discomfort. The procedure takes approximately 10 minutes.

If the eye is comfortable there is no extra treatment but do ask the clinician whether you need to continue your usual glaucoma drops (if you are on these). We will make an appointment for you to come back to the clinic around six to eight weeks after the laser.

Benefits

SLT effectively lowers raised IOP without the side effects or difficulty of taking eye drops. It can also be used alongside medication to enhance the overall IOP-lowering effect with the advantage of not causing any damage to the tissue treated.

SLT is a newer form of a long-established treatment that has the advantage of not causing any damage to the tissue treated.

Potential side effects

Your vision will be blurred for a few hours following your laser treatment before it returns to what it was prior to the procedure. The chances of your vision being permanently affected from SLT are extremely small. Very occasionally inflammation can cause the eye to be red and painful. If you are concerned, please contact us on 01904 726758 (Monday – Friday 9am to 5pm) or 01904 631313 out of office hours. Ask for the eye doctor on call.

You are also advised not to drive yourself to the hospital, as you may be unable to drive home if the drops cause blurred vision.

It is possible for the pressure in your eye to increase immediately after the treatment or there might be some transient inflammation. To prevent this, we put in special drops when we treat you which reduce the pressure. We also re-check the pressure at around half an hour after the procedure before you go home.

Rarely, the pressure in the eye rises to a very high pressure and does not settle. If this happens, you might require surgery to lower the pressure. This is a very unusual event.

There is a very rare risk of bleeding in the eye during the procedure which normally resolves on its own accord.

Success rate

Studies show a 75% success rate for SLT, with some patients responding well to the treatment (three quarters of patients), but others not responding at all.

Usually, we cannot predict how well the laser will work as your response is determined by the type of glaucoma you have and the basic make-up of your eye.

If you take eye drops, you may need to continue these to lower the pressure after laser trabeculoplasty. If you are unsure, please check at the laser appointment. It will take up to eight weeks after the laser treatment for the pressure to be reduced. You might require additional treatment to lower the pressure if it is not sufficiently low after your first laser treatment.

In a large study looking at the SLT versus eye drops, 70% of patients initially treated with SLT had good pressure control without the need for eye drops or surgery after six years (some of these had had a second SLT treatment in that time).

Please scan the QR code below to view this information online:

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Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Sister, Ophthalmology, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726758.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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