Selective laser trabeculoplasty (SLT)

This leaflet explains more about having SLT, including the benefits, risks and alternatives, and what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or nurse caring for you.

What is SLT?
SLT is a procedure used to reduce pressure in the eye (intraocular pressure).

If you have healthy eyes, the fluid in your eye (aqueous humour) flows through your pupil into the front of your eye. It then drains away through drainage channels inside the eye. These channels are situated where the cornea (clear front layer of the eye) and the iris (coloured part of the eye) meet.

In some eyes, these drainage channels do not work properly so your eye pressure increases. This increase in pressure may injure your optic nerve and impair your vision. This is called glaucoma.

In a trabeculoplasty procedure, a laser beam is applied to the drainage channels, which helps to unclog them. This means the fluid in your eye flows through the channels better, reducing the pressure in your eye.

Aqueous humour is a completely different fluid to your tears, which will not be affected by this laser treatment.

Why should I have this treatment?
It is important to remember that this procedure is performed to save the sight you still have. It will not restore any sight you may have already lost, or improve your sight.

SLT is successful in about three out of four (75%) patients. If the treatment is successful, you may be able to reduce the number of eye drops you currently use to manage your glaucoma.

This is not a permanent treatment, and may need to be repeated in the future to control your eye pressure adequately.

What are the risks?
Complications after this treatment are usually mild, and include inflammation and occasionally a sharp increase in the eye pressure. You will be given drops to help prevent these problems. If your eye pressure rises immediately after the treatment, you may need additional eye drops or tablets before you can go home.
We will not know whether the laser treatment has been successful for about four weeks. Sometimes, the treatment does not reduce the pressure in the eye to a satisfactory level. If this is the case, you will have to continue with eye drops, or you may need a different treatment.

If you experience any of the symptoms below any time after your treatment, telephone the Ridley Clinic for advice immediately (details are at the end of this leaflet), or visit your nearest Emergency Department (A&E):
- increasing redness of your eye
- excessive or worsening pain
- loss of vision.

Are there any alternatives?
The alternatives to this laser treatment are to start or continue with eye drops to lower the pressure in your eye, or surgery. Ask your doctor if you would like more information.

How can I prepare for SLT?
There are no special preparations required for this treatment. You can eat and drink as normal, and you must take your usual eye medication on the morning of the laser treatment.

Consent – asking for your consent
We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

What happens during the treatment?
You will need to visit the outpatient department for about half a day. We will carry out the treatment in one of our laser treatment rooms.

The doctor will assess your eye first, and check the pressure. It is important that you use your regular eye medication as normal on the morning of your laser treatment, unless your doctor has told you otherwise.

You will then have some more drops put into your eye, including a drop to protect the eye from any spikes in pressure, and an anaesthetic drop to numb the eye. We usually put in a drop to make the pupil smaller – this may give you an ache around the eye or a headache. Please let us know if you would like paracetamol as this can help to ease any discomfort.

You will then sit at a machine similar to the one used to examine your eyes at the eye clinic, but with a special laser attached to it.

The doctor will put a special contact lens on your eye before applying the laser beam. This lens allows the doctor to view your eye clearly so they can apply the laser to the drainage channels.

The treatment is painless due to the anaesthetic drops used to numb your eye beforehand. It takes about 10 minutes per eye to complete.
What happens after the treatment?
You will return to the waiting area and your doctor or nurse will check the eye pressure about one hour later.

Your vision may be a little blurred and you may be dazzled by the bright light but this should settle within about 10 minutes. This may occasionally be due to your cornea (the clear window in the front of your eye) swelling, which is usually temporary but may require treatment with steroid drops for a few extra days.

You will be prescribed steroid eye drops to control inflammation within the eye following the laser treatment. The doctor will advise you how long you need to use them for.

You must continue to use your usual glaucoma eye drops to the treated eye, unless you have been asked to stop them. If you are using glaucoma drops to the untreated eye, please continue to use them unless clearly instructed otherwise.

You should be able to return to work and your usual activities by the next day.

What do I need to do after I go home?
Your eye may feel a little sore and red after the procedure. If you have discomfort once you get home, we suggest that you take your usual pain relief, following the instructions on the packet.

It is normal to have the following symptoms for a few hours after the laser treatment:
• irritable eyes
• red eyes
• mild discomfort.

If any of these symptoms last longer than 24 hours, or if you are worried about your eyes, call the Ridley Clinic for advice (details at the end of this leaflet). You can also leave a message on the Glaucoma Helpline (details at the end of this leaflet) or visit your nearest Emergency Department.

You may also find that your vision has altered a little after the treatment, due to the drops used. This is normal, and vision usually returns to how it was before the laser treatment within about six hours.

Will I have a follow-up appointment?
You will be seen in the outpatient department about four weeks after the laser treatment to check your eyes and the pressure response to the laser treatment. Your follow-up appointment should be booked for you before you leave the hospital after the treatment.
Contact us
If you develop any of the symptoms featured in this leaflet, or need advice about your eye(s), please telephone:

- Glaucoma Call Back Service (24 hour answerphone for non-urgent queries),
  t: 020 7188 9121
- For any urgent problems, please attend the Eye Emergency Department,
  South Wing, ground floor, 8.30 to 4pm or, outside of these hours,
  the Main Emergency Department, open 24 hours

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748, Monday to Friday, 9am to 5pm

Your comments and concerns
For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS)   e: pals@gstt.nhs.uk

Language and accessible support services
If you need an interpreter or information about your care in a different language or format, please get in touch.

t: 020 7188 8815   e: languagesupport@gstt.nhs.uk

NHS 111
Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices
Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust
Members of Guy’s and St Thomas’ NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, please get in touch.

t: 0800 731 0319   e: members@gstt.nhs.uk   w: www.guysandstthomas.nhs.uk/membership