

Selective Laser Trabeculoplasty (SLT)

Information for Patients

What is SLT?

- Selective Laser Trabeculoplasty (SLT) is a, simple laser procedure that helps to reduce the eye pressure associated with glaucoma. It is a relatively safe procedure, and usually it is painless. SLT works by making the cells in the “trabecular meshwork” pump fluid out of the eye more quickly, to lower the level of eye pressure. The trabecular meshwork is inside the front part eyeball, where the white part joins the coloured part.
- SLT treatment is done in the eye clinic. Usually, it takes no longer than five minutes for each eye. For about 7 out of 10 people, eye pressure is improved following SLT. This means that for about 3 in every 10 people treated, the SLT will have no effect. It can take a few months for SLT to have its full effect on lowering eye pressure. If successful, the effect may last for several years. SLT can be repeated, if necessary.

Why do I need to have it done?

The most common reasons for your doctor to offer you SLT treatment are:

- Your eye pressure is considered too high for your level of glaucoma.
- You are suffering with side effects from your current eye drops.
- You find it difficult to cope with regular eye drops.

Are there any alternatives to SLT laser?

There are other alternatives to SLT laser. For people who need a lower eye pressure, the main options are to use eye-drops every day, or to have a different sort of laser, or an operation. In some cases of mild glaucoma or ‘suspect glaucoma’, another option might be to ‘watch and wait’.

What will happen during the procedure?

- The SLT procedure typically takes 3 to 5 minutes for each eye to do. A special contact lens is used to keep your eyelids open. Anaesthetic eye drops are applied to ensure that your eye is comfortable with the lens in your eye. The laser machine looks very similar to the microscope used for examining your eyes. You may hear some “clicking” sounds produced by the laser machine.
- The procedure itself is generally painless. Most patients do not experience any significant discomfort, although some may feel a little pressure inside the eye or a slight headache during or after the SLT procedure. Many people say that the whole experience is very similar to having a normal eye-check in the clinic.

What will happen after the procedure?

- We may check the eye pressure about one hour after the laser treatment.
- Usually, you will be seen again for further eye pressure monitoring within a few months, depending on your eye pressure readings.

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- If you are using anti-glaucoma eye drops before SLT, you should continue using the same treatment, unless advised otherwise by your doctor.
- Normally, there is no need for additional drops after SLT, but this will depend on your eye pressure measurements and inflammation following the procedure.
- No aftercare or precautions are needed following SLT and you should be able to resume wearing contact lenses and return to your normal activities from the following day.
- The vision may be a little blurry for a few hours or days, and the eye may be slightly achy and slightly light-sensitive. If these symptoms are worrying, or if they are getting worse, do contact us as you may need a further check-up
- You should not drive or operate machinery within a few hours of SLT laser. You should not drive after SLT laser, for safety reasons (and your insurance would not be valid). **Do not drive** yourself home after SLT laser.

What are the side effects?

- SLT is usually a safe procedure and the risk of adverse effects is minimal. There is a small risk of raised eye pressure for a short period of time after the laser treatment. To help prevent this, you may be given additional eye drops before and/or after the procedure. Rarely, the eye pressure may go up and be difficult to control with eye drops. This may mean we might need to do a glaucoma operation.
- You might experience some eye discomfort and redness, blurry vision or sensitivity to light after the laser for a few hours or sometimes a few days, for which you might want to wear sunglasses.
- There have been very few reports of serious problems after SLT. The reported cases include very high pressure, significant inflammation, bleeding of the iris, swelling of the retina (back of the eye) and swelling or distortion of the cornea (front transparent window of the eye). Most peoples' eyes settle down without any further problems. It is extremely rare for the SLT laser to cause permanent worsening of vision.
- There are a few types of eye that seem to be at higher risk of problems after SLT laser. These include eyes that have had previous inflammation, or swelling of the retina (called macular oedema), and very near-sighted eyes (needing a strength of glasses or contact lenses of -6 dioptries or higher). SLT is suitable for most types of glaucoma, but there are a few types of glaucoma for which we may need to give a lower amount of SLT, or do extra pressure checks: these include "pigment dispersion syndrome" and "pseudo-exfoliation" glaucoma. If you have any questions about this, do ask the doctor before the SLT treatment is started.

Contact details

If you think you are having a problem following SLT, please contact the Eye Emergency Team through the NNUH hospital switchboard on: 01603 286286.

