

Selective laser trabeculoplasty (SLT)

Introduction

Glaucoma is treated by lowering the pressure in the eye. This can be achieved by drop medications or laser and other surgical procedures. The aim of treatment is to prevent further vision loss and to keep the remaining vision.

SLT helps the fluid flow out of the eye. It is an option for lowering eye pressure for patients who have glaucoma in the early stages of ocular hypertension (high eye pressure with no glaucoma damage). It can also be used in combination with drop medications or as an alternative if drops fail. It can be repeated if necessary, depending on the individual patient's response.

How does it work?

The drains of the eye (the trabecular meshwork) is around the periphery of the iris and is where fluid in the eye flows out. This drain is treated directly with the laser to improve drainage through it.

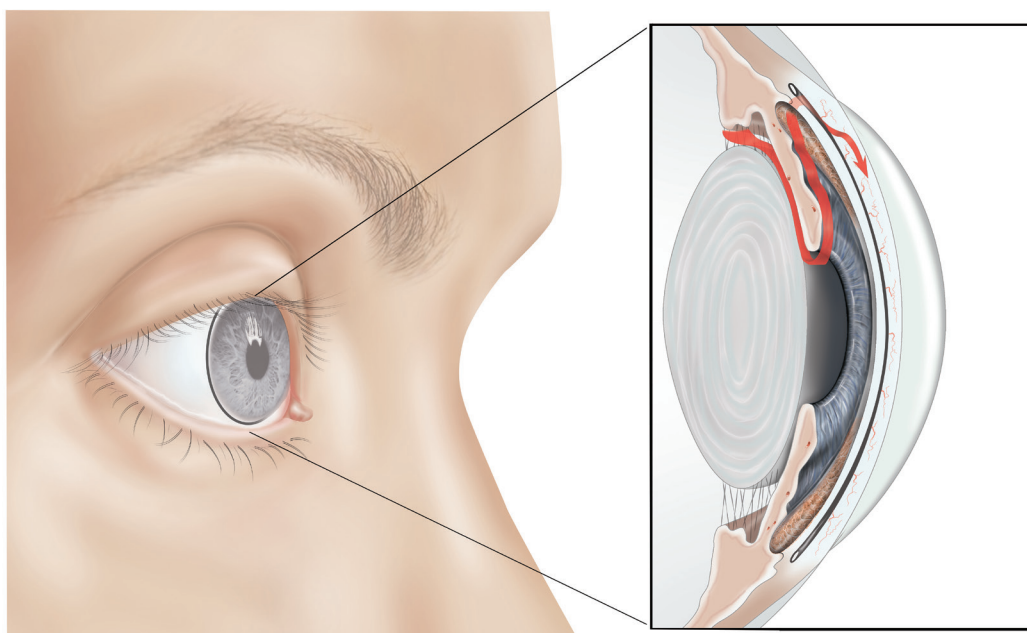
SLT uses short pulses of low energy light to target only the pigment-rich cells in the drains of the eye. The laser affects only these pigment containing cells, and leaves the surrounding structures unaffected. This gentle laser treatment induces the body to release white cells to clear the affected cells and rebuild the meshwork so that it functions effectively again, reducing the eye pressure.

How is it done?

Treatment takes place in the outpatient department. A nurse/doctor will put some drops in your eye to prevent the pressure rising and to make your pupil small. They can occasionally cause a mild temporary headache. A doctor will take your written consent and if you have any questions, will explain further.

The laser machine looks similar to the microscope you will have been examined with in clinic. You will be sat at the machine and some anaesthetic drops will be put in to numb the front of your eye. A special contact lens will then be placed on the front surface of your eye. This is not painful, but it may feel a little strange. 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 between 10 and 15 minutes.

We will make an appointment for you to come back to the clinic, usually one week later. This follow-up appointment is to check that your eye is settling, although the treatment might take up to eight weeks to work.



Potential side effects

Your vision will be blurred for a few hours following your laser treatment, but this will settle. The chance of your vision being permanently affected from SLT is extremely small. If you are concerned that your vision is not returning to normal, please contact us on the numbers below. You should not drive yourself to the hospital, as you will be unable to drive home.

It is possible that the pressure in your eye can increase after the treatment and there may be inflammation. In order to prevent this, we put in special drops when we treat you. We might provide steroid drops, and occasionally extra glaucoma drops following your treatment should this occur.

Rarely, the pressure rise in the eye is very high and does not come down. If this happens, you might require surgery to lower the pressure. However, please be assured that this is a very unusual occurrence.

Success rate

Studies show a 78% success rate for SLT, with some patients responding well to the treatment, but some had no response. Usually, we cannot predict how well the laser will work.

This is because your response is determined by the type of glaucoma you have and the basic make-up of your eye.

If you take eye drops before the laser treatment, you will usually need to continue these after as well. It can take up to eight weeks after the laser treatment for the pressure to be reduced. You may need a repeat laser treatment to lower the pressure if it is not low enough after your first treatment.

The pressure reduction effects of the laser treatment may wear off in time – about half of all treatments stop working after five years. However, the treatment can be repeated.

Contact for further information:

Please contact the main switchboard on 02920747747 and ask to speak to your consultant's secretary.

Ophthalmology Department
University Hospital of Wales
Heath Park, Cardiff CF14 4XW
Emergency Eye Clinic: 02920 743191

Author: Ms Siene Ng Consultant Ophthalmologist,
Glaucoma Department
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