

Selective Laser Trabeculoplasty (SLT)



PATIENT EDUCATION

What is Selective Laser Trabeculoplasty (SLT)?

The eye constantly produces aqueous humor, the clear fluid that fills the anterior chamber (the space between the cornea and the iris). The fluid drains out of the eye through a complex drainage system in the back of the cornea. As new aqueous flows into your eye, the same amount should drain out. The balance between the production and drainage of aqueous determines the IOP.

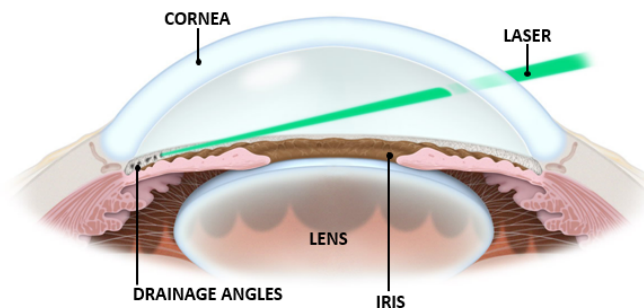


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Laser trabeculoplasty is a type of laser treatment that improves the drainage of fluid from the eye. The goal is to lower the intraocular pressure (IOP) in patients with open angle glaucoma. An advanced type of laser trabeculoplasty is known as Selective Laser Trabeculoplasty (SLT), which targets the cells that help drain fluid, lowering the IOP. This is currently the most common trabeculoplasty procedure.

How is SLT performed?

SLT is an outpatient procedure performed in the office. It usually takes less than 10 minutes. Prior to the procedure you will be given some eye drops to make your pupil small. These drops take 30-45 minutes to work.

You will then be taken to the Laser Room where additional drops will be given to numb your eye. You will be positioned at the Laser Unit, which looks similar to the microscope used in your routine office examinations.

The surgeon will place a special contact lens on the surface of your eye to improve visualization and provide comfort and stability during the procedure.

You will see a bright light and feel slight pressure on the eye. The surgeon will then use multiple laser applications to treat the drainage channels. Although the laser is not painful, you may sometimes feel a stinging sensation as the laser is used.

After the procedure you will stay in the clinic to make sure that you are stable. The IOP will be checked 30-60 minutes after completion. You will then be discharged.

The doctor may treat the eye with anti-inflammatory eye drops for a few days after the procedure. You will return for one or more postoperative visits as indicated by your surgeon.

Benefits of SLT

- SLT results in a biological response of the cells that control aqueous drainage, often resulting in increased drainage and a reduction in the IOP.
- The response to SLT varies widely, but overall SLT is clinically effective in 80-85% of cases. The response to SLT can last an average of 2-3 years, but it can vary depending on the patient and the type of glaucoma.
- A successful SLT may reduce and in some cases eliminate the need for eyedrops. In many cases patients still need to use drops.
- SLT, even if successful, does not cure glaucoma and does not eliminate the need for other treatments.

Potential risks and complications of SLT

Like any medical procedure, SLT can result in complications. These are uncommon and usually mild and transient. Some of these risks include:

- Lack of response to the treatment, requiring other measures to control IOP.
- Elevation of IOP despite the treatment that may need additional medications or surgery.
- Temporary blurry vision.
- Inflammation resulting in a light sensitivity, redness or even pain.
- Rarely it can cause swelling of the cornea, the most anterior portion of the eye.
- The need to repeat the SLT if its effect wanes over time.

The successful management of glaucoma is a joint effort between the patient and the doctor. Patients need to take the medications, keep their appointments for testing and visits with the doctor, and constantly communicate with the doctor if new symptoms or questions arise.