

DEPARTMENT OF  
**OPHTHALMOLOGY**

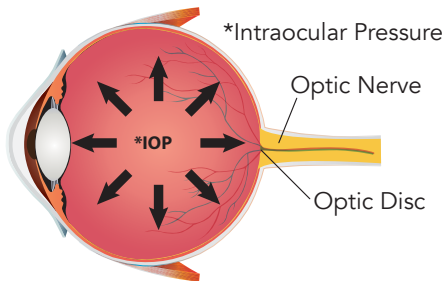
Selective Laser Trabeculoplasty  
(SLT) For Glaucoma



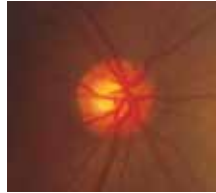
## What is Glaucoma?

Just as a balloon has its shape due to the air inside, your eye maintains its shape by its eye pressure. This pressure is generated by fluid (called aqueous humour) within the eye. The level of pressure is determined by the balance of fluid entering and leaving the eye. If the outflow channel becomes blocked, pressure in the eye rises, leading to the disease called glaucoma.

In glaucoma, there is permanent and progressive damage to the eyeball nerve (called the optic nerve), which can lead to irreversible blindness.



**Illustration of how intraocular pressure is exerted within a normal eyeball.**



**a. A normal optic nerve.**



**b. The optic nerve in a patient with glaucoma looks pale and "cupped".**

## How does SLT laser treatment work?

SLT laser works by using gentle laser energy to stimulate the outflow channel of the eye, thus improving the exit of fluid and in turn, leads to a lowering of the pressure of the eye. The laser treatment success rate is between 40 to 89%. The laser treatment can be repeated if required.

## Who will benefit from SLT laser treatment?

Patients who:

- require eye pressure lowering to treat or prevent glaucoma
- cannot tolerate side effects of glaucoma eye drops
- wish to reduce the number of eye drops used

## Are there any other treatments available for Glaucoma?

Other treatments include eye drops for glaucoma and surgery for glaucoma. Eye drops that reduce eye pressure are applied once, twice or three times a day to the affected eye. Surgery for glaucoma is usually reserved for eyes in which eye drops for glaucoma have failed to reduce the pressure of the eye sufficiently.

## Will my vision get worse if I do not undergo laser treatment?

If you are not on adequate glaucoma treatment, your vision will continue to deteriorate slowly over time.

### How do I prepare for the laser?

1. Please continue to **apply** your usual glaucoma eye drops as instructed.
2. Bring a light **jacket** as the laser room has to be kept cold for the laser to function well.
3. **Do not drive** as your vision may be blurred for a few hours after treatment.
4. Come with a **companion** so that he/she can take you home safely.
5. There is **no need to fast**, and no need to stop your usual medications.

### How is the laser carried out?

This is a minor laser procedure. It is quick, often taking less than 5 minutes, and it is **carried out in the clinic**. No injections are required; our nurses will instill eye drops to protect you from sudden increases in pressure of the eye. The doctor will gently apply a contact lens onto your eye, and the laser procedure is then carried out. You may experience mild discomfort during the treatment, but this is usually tolerable.

### What happens after the laser treatment?

After the procedure **eye drops will be prescribed** for use to soothe any discomfort that may occur. Although the procedure is extremely safe, we often keep our patients under observation for approximately 30 to 45 minutes. After this observation period, you may go home. No special after-care is required; you can watch TV / read. Please continue applying your usual glaucoma eye drops as instructed by your eye doctor. Medical leave can be given for the rest of the day if necessary - work can resume the next day. A follow-up appointment will be given to monitor the disease.

### Are there side-effects from laser treatment?

- You may experience mild blurring of vision for about a day following your laser procedure.
- There may be mild eye inflammation and discomfort after the laser procedure. This is transient and with medication, the inflammation and discomfort will settle.
- Occasionally, after the laser procedure, the pressure of the eye may rise. However, this is transient and with medications, the pressure of the eye will normalize again.
- Rarely, there may be bleeding inside the eye. This is transient and will settle.

We hope this has helped you and your family understand why you need to undergo SLT laser treatment. Please do not hesitate to ask your eye doctor if you have any other questions related to your eye condition or the laser treatment.

**Clinic Appointments and Eye Screening**

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