

Selective Laser Trabeculoplasty (SLT)

Laser treatment for chronic glaucoma

Selective laser trabeculoplasty (SLT) is a safe, easy treatment suitable for most patients with glaucoma:

How is SLT performed?

SLT is performed at a slit lamp microscope similar to the one used in regular examinations. It takes about 10 minutes and is either pain free or mildly uncomfortable for most patients. After instillation of anaesthetic eye drops a contact lens is placed against the eye, and 50 to 100 small burns are placed around the drainage angle of the eye. It is quite different from other laser treatments eye surgeons use.

What are the pluses of SLT?

- it is very safe
- it is easy to perform
- it can lower eye pressure dramatically and keep it low for many years
- it can mean that eye-drops with their various side-effects can be avoided

What are the minuses of SLT?

- it often doesn't lower eye pressure much or at all
- successful treatment doesn't always last a long time

How does SLT work?

We do not completely understand this. It may be that the area around the contracted burns opens to allow more fluid flow. It is possible that the laser initiates a series of biological events in the eye with release of local hormones that have the beneficial response that we seek. The treatment was initially intended to create an opening through which aqueous could leave the eye – we know that it doesn't in fact work this way. Nevertheless it is a well established treatment for glaucoma that has been validated by high quality clinical trials, and has been in widespread use for many years around the world.

What are the risks of SLT?

A previous risk of the eye pressure transiently rising steeply immediately after treatment is now almost never seen with the use of an adrenergic eye-drop at the time of treatment. Very rarely the treatment may raise intra-ocular pressure long term. Whenever we put a contact lens against the eye there is a small risk of scratching the cornea.