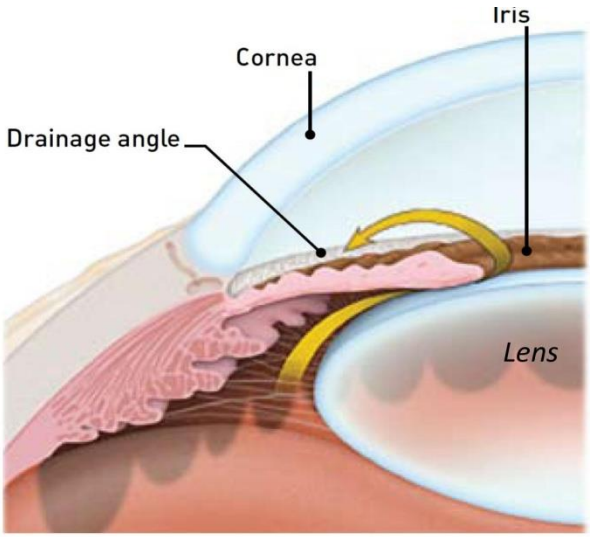
# SELECTIVE LASER TRABECULOPLASTY (SLT)

## WHAT IS GLAUCOMA?

Glaucoma is a disease of the **optic nerve**, the part of the eye that carries the images we see to the brain. The optic nerve is made up of over a million nerve fibers. When damage to optic nerve fibers occurs, blind spots develop. These blind spots usually go undetected until the optic nerve is significantly damaged. If the entire optic nerve is destroyed, blindness results.

The most common form of glaucoma is chronic open-angle glaucoma. In this condition, the drainage angle of the eye becomes less efficient over time. Pressure within the eye gradually increases. The increased pressure slowly and painlessly destroys the nerve fibers in the optic nerve. Eyes have different abilities to withstand pressure. When an eye has a significant risk of nerve damage, treatment to lower the pressure is necessary.



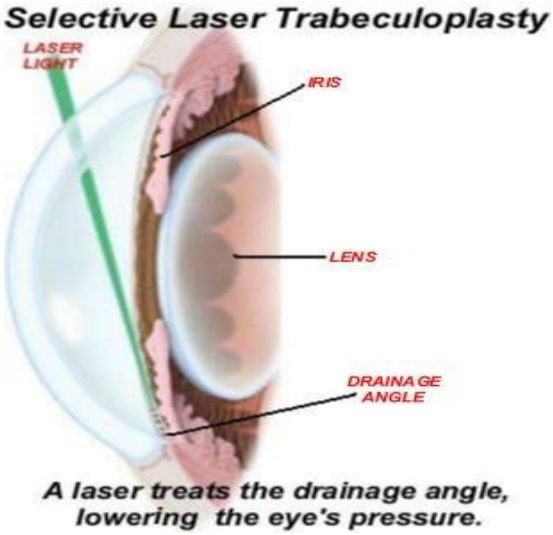

**If the drainage angle is blocked, excess fluid cannot flow out of the eye, causing the fluid pressure to increase.**

## HOW DOES SELECTIVE LASER TRABECULOPLASTY TREAT OPEN-ANGLE GLAUCOMA?

The drainage angle of the eye contains a network of tiny drainage channels called the trabecular meshwork. A partial blockage within this microscopic meshwork elevates the pressure in the eye.

**Selective Laser Trabeculoplasty (SLT)** delivers short pulses of low energy laser light to the pigment-containing cells in the trabecular meshwork. The pigment, called melanin, is released into the drainage meshwork, and the body's immune system removes it. This process leads to a widening of the drainage channels within the trabecular meshwork. The fluid in the eye then drains more readily, with the eye pressure decreasing more than 80 percent of the time. Because the SLT uses a low amount of energy, the surrounding non-pigmented cells are not affected.

The pressure reduction from the SLT can wear off over time. By five years after SLT treatments, half of people experience some rise in eye pressure. SLT treatments can be repeated as needed.




## WHO IS A CANDIDATE FOR SLT?

The SLT is recommended when a patient has difficulty using eye drops or tolerating their side effects. Often, the SLT is used instead of drops as a first line of treatment for glaucoma. Frequently, the SLT is used in addition to eye drops to obtain optimal pressure control.

SLT treatments work 24 hours a day; eye drops only work when patients use them. (Studies show that patients often do not use their glaucoma drops reliably.) In the long run, SLT treatments generally cost less than drops for glaucoma.

## HOW IS SLT DONE?

The procedure is done in the office and usually takes only a few minutes. First, anesthetic drops are used to numb the eye. While you are seated at the examining microscope, a contact lens is placed on the eye. The laser is then use to treat the drainage angle of the eye. You will experience a flash of light with each laser application. There is usually no discomfort. Anti-inflammatory drops may be used for a few days. There are no restrictions in activities afterwards.

It can take several weeks for the laser treatment to take full effect. Your eye pressure will be checked one to two months after the procedure. If the eye pressure is not lower at the first visit, some additional effect can occur up to three months after treatment.