



Laser Surgery for Glaucoma

Laser treatment for open angle glaucoma

Open angle glaucoma may be treated with a laser in an attempt to lower the pressure inside the eye. The newest and most gentle type of laser is the Selecta Selective Laser Trabeculoplasty, or SLT for short. This treatment usually involves minimal discomfort, and is completed in less than thirty minutes. It is usually performed in the office with topical anesthetic drops. The laser is attached to a machine that is similar to the one that your eye doctor uses to examine your eyes. During the laser procedure, the patient sees multiple bright flashes of light, and may occasionally feel a mild stinging sensation in the eye. Usually, however, no pain is experienced by the patient.

In laser treatment for open angle glaucoma, the laser beam is directed towards the drainage area of the eye, which is called the trabecular meshwork. This is in the front part of the eye between the cornea and the iris. In some types of glaucoma, there is an invisible blockage in the trabecular meshwork which blocks the outflow of fluid, thereby increasing the pressure inside the eye. It has been discovered that treating the trabecular meshwork with a laser can lower the intraocular pressure. It is thought that the laser increases the flow of fluid through this drain.

This laser is generally effective in about eighty percent of patients who undergo the procedure. Sometimes the beneficial effect of the laser is not permanent. In approximately fifty percent of patients, the laser helps to lower pressure for as long as ten years.

Many times, your ophthalmologist will treat only one half of the drainage area with the laser treatment. One reason for this is to decrease the risk of possible complications from the laser. Possible complications include an actual increase in the eye pressure, or inflammation inside the eye. These two complications are normally treated with eye drops. If treatment of one half of the drainage area works to lower the pressure, then treatment to the other half of the drainage area can be performed at a later date if the eye pressure rises again.

After laser treatment for open angle glaucoma, the complete effect may not be noticed until about six weeks after the procedure. Glaucoma medications should be continued following laser treatment unless your eye doctor instructs you otherwise.

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Laser treatment for narrow angle glaucoma

Narrow angle glaucoma can be treated with a laser. This laser treatment can be used to prevent an attack of narrow angle glaucoma, and it can also be used during an attack of narrow angle glaucoma, in order to lower the eye pressure. Narrow angle glaucoma involves a narrowing of the drainage area, or angle of the eye. This narrowing is caused because the iris of the eye moves closer to the drainage area in predisposed individuals. If the iris moves so close that it closes the drainage area, then the intraocular pressure increases, and narrow angle glaucoma is the result.

In laser treatment for narrow angle glaucoma, the laser is used to create a tiny microscopic hole in the iris of the eye, called an Iridotomy, so that fluid may pass through this hole (• See Photos). This allows the iris to fall back away from the drainage area. This usually prevents or cures narrow angle glaucoma.

This laser treatment is usually performed in the office with topical anesthetic drops. Usually it can be completed in less than thirty minutes and it involves minimal discomfort for the patient. The laser is attached to the machine that your eye doctor uses to examine your eyes. During the laser procedure, the patient will notice multiple bright flashing lights, and may experience occasional stinging in the eye. Normally the patient does not experience any discomfort.

After the laser treatment, your eye doctor will ask you to stay in the office for approximately one hour so that the eye pressure can be checked. Sometimes, you may be asked to return in twenty-four hours for a repeat pressure check. Usually, you will also be asked to return in one week for a pressure check and assessment of the treatment.