

Glaucoma Laser Surgery: MDLT-Micropulse Diode Laser Trabeculoplasty

Your doctor has recommended that you undergo a laser surgery called micropulse diode laser trabeculoplasty for your eye. Your doctor has found that the pressure in your eye is higher than desired and recommends lowering of the eye pressure. Fluid that circulates in the front section of the eye leaves the eye through a drainage angle between the cornea (the clear, window portion of the eye) and the iris (the colored portion of the eye). In most patients with glaucoma, passage of fluid through this drainage angle is slower than necessary leading to higher eye pressure. The micropulse diode laser trabeculoplasty uses a laser that targets this drainage angle and can facilitate increased outflow and lower eye pressure.

Before the laser treatment

You may eat and drink, as you like before the treatment. You should continue any glaucoma medications your doctor may have prescribed for you, as well as all other medications you are taking for the rest of your body.

During the laser treatment

You will be seated at the laser instrument and a drop of anesthetic will be placed in the eye as well as a drop of Alphagan. A special lens that directs the laser beam to focus on the drainage area will then be placed on the eye along with some gel to allow the lens to fit properly.

The laser light will not harm the remainder of the eye. Usually, around fifty laser spots will be applied. During the treatment, you may feel some tingling or slight stinging, and you will see some bright flashes of light. The treatment usually takes about 10 to 15 minutes to complete.

After the laser treatment

When the laser treatment is completed, the special lens will be removed, the eye will be rinsed, and an additional drop of Alphagan and an anti-inflammatory drop will be instilled. The doctor will have you wait to check the pressure after approximately 45 minutes. If the pressure is satisfactory, you may go home. If it is significantly increased, you may be asked to stay in the office for additional medical glaucoma treatment and pressure measurements until the level is acceptable.

Generally, any pressure increase that occurs after the laser treatment is transient and effectively treated with temporary medications. Rarely, however, the pressure increase can persist and, if dangerously high, may necessitate urgent glaucoma surgery. Other, less serious complications include inflammation of the eye (again, usually transient and treated with temporary medications) or a scratch or irritation of the surface of the eye from the laser lens.

After the laser treatment, you may experience some blurring of vision and irritation, but this should be temporary. You will not be required to wear a patch, and you may continue your usual activities. You will be instructed to instill an anti-inflammatory drop in the treated eye for several days postoperatively. You also may be asked to change your glaucoma medications. Typically, the first postoperative visit will be approximately one week later.

It usually takes at least 6 weeks after the laser procedure for the full pressure lowering effect. Approximately 80% of patients will experience a lowering of pressure following this laser procedure. The duration of this effect is usually between two to five years. Retreatment is possible in some cases.

Our goal is to provide you with the best possible surgical care. We hope that this information is helpful. If you should have additional questions or concerns regarding your surgery, please feel free to speak with your doctor or a member of the staff.