

# Glaucoma Laser Surgery: Laser Cyclophotocoagulation

---

Your doctor has recommended that you undergo laser surgery for your glaucoma. This treatment is called laser cyclophotocoagulation. If successful, it will lower your eye pressure by decreasing the eye's fluid production. It is done with two types of laser technology. In the first, called transscleral cyclophotocoagulation, a laser probe is placed on the white wall of the eye, just outside of the circle formed by the iris (the colored part of the eye) and the cornea (the clear window portion of the eye) to administer 15 to 30 laser treatment spots. With the other type, called endoscopic cyclophotocoagulation, a small endoscopic device used in the operating room is placed through a small incision at the edge of the cornea, much like for removal of a cataract. The endoscope is used to directly visualize the parts of the eye that make the internal fluid, called the ciliary body, and laser energy is directed to this area. Both of these treatments work in the same way: the laser energy affects the fluid forming cells in the eye and alters them in such a way that they produce less fluid, thus lowering the eye pressure.

## Risks and benefits of the laser treatment

The benefit of this laser treatment is improved glaucoma control, often with a reduced need for medical treatment. In some instances, this laser treatment is done to lower the eye pressure to a level that will stop further visual loss from glaucoma. In other cases, the treatment may be done in an eye with low vision that has painful glaucoma to lower the pressure enough to make the eye comfortable. Like any procedure, complications can occur. These include a temporary or long-lasting decrease in vision, inflammation or bleeding inside the eye, swelling in the back of the eye, or, if performed in an eye with its own natural lens, development of a cataract. A single laser treatment may not achieve adequate control of the eye pressure, and repeat treatment may need to be considered. Occasionally, the treatment results in excessive lowering of the eye pressure, either immediately or some time afterwards. This can cause decreased vision, which may not be correctable.

## Before the laser treatment

You will receive instructions regarding the laser surgery from your doctor and the staff. Usually no blood tests or other preoperative testing is required. As rather powerful laser energy is utilized for this treatment, local anesthesia in the form of an injection behind and/or around the eye is necessary. Because of this injection, blood thinners, aspirin-containing products, and many arthritis medications should be discontinued one week before the surgery if it is acceptable to your regular personal physician. If you are taking Coumadin, it is particularly important that you make your doctor and the staff aware of this fact.

If transscleral cyclophotocoagulation is the selected treatment, you may be scheduled to have the treatment done in the procedure room at Premier Eye Care or the ambulatory surgery center, depending on

whether intravenous sedation is desired for the local anesthesia to numb the eye. If you are going to the surgery center for this laser procedure, you should withhold all food and drink six hours before the surgery. If you have diabetes, and particularly if you use insulin, you should receive special instructions from your doctor and the staff regarding your diet and the use of insulin on the day of the laser surgery.

#### During the treatment

Whether you are in the surgery center or at Premier Eye Care, once the local anesthesia is completed and the eye is numb, a small device to expose the treated eye, called a lid speculum, will be placed. You may feel some pressure from this, but there should be no pain during the procedure. You may hear some beeps and feel or hear some popping noises. These are normal and expected. The treatment should take no more than 10 to 15 minutes. When the procedure is completed, medications are placed in the eye, which will be covered with a patch.

#### After the laser treatment

Once you are felt to be stable after the treatment, you will be discharged home. You will be asked to keep the eye patched for a period of time, from several hours to overnight. After that, no patching is required, and you may resume all usual activities. You will be given instructions regarding eye medications which you should begin once you remove the patch. In most instances, you will be seen the following week at Center for Sight.

There is typically postoperative pain with these treatments and the eye may be uncomfortable afterwards for several days. You will be prescribed painkillers in case of this, and you also will be on some eye drops to reduce inflammation. These will be tapered over the next few weeks as the inflammation subsides.

The vision may be decreased initially, but in most instances will improve with time. Depending on your eye's response to the laser treatment, the pressure immediately after the procedure may be high or low. You may need to continue some or all of your preoperative glaucoma medications, at least temporarily. As it may take up to a month for your eye to have its maximum response to the treatment, these medications may later be decreased or discontinued if the pressure begins dropping to an acceptable level. If the pressure does not drop to an acceptable level, or if the treatment was done for comfort and the eye remains painful, a repeat laser treatment may be recommended.

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 laser surgery, please feel free to speak with your doctor or a member of the staff.