Glaucoma Surgery – Trabeculectomy

Why is this eye surgery done?
A trabeculectomy is used in the treatment of glaucoma to lower the pressure in the eye. Often this is done when medicines have not lowered your eye pressure to a safe level. If the pressure remains too high, it can permanently damage the optic nerve and your vision.

What is done?
A small opening is made in the white sclera of the eye to create a drainage channel for fluid from the inside of the eye. This hole is covered by a thin tissue, the conjunctiva. When the fluid flows through this hole, it collects under the conjunctiva and forms a bleb or small blister. The fluid under the bleb is slowly absorbed by the body. Doctors look for the bleb to be sure that the fluid is draining the way it should.

Will this work?
Glaucoma surgery is usually successful, approximately 80 to 85% of the time. Over time, your body may try to close the new hole. Sometimes drugs (5-Fluorouracil and Mitomycin-C) can be used during or after the surgery to prevent scar tissue from forming. Most of the time Mitomycin-C is used during the surgery and sometimes 5-Fluorouracil is used after the surgery. The doctor will decide whether this is needed. This will depend on your age, if you have had eye surgery in the past, and what type of glaucoma you have.
After five years, about 50% of our surgery patients have eye pressures low enough that they do not need glaucoma drugs. About 25% will need to use drugs, and 25% will fail to lower pressure enough even with medicine. We can prevent further loss of vision 65% to 90% of the time.

**What Are the Risks?**
The most common risks of surgery are that the new drain works too little or too well. If the drain works too little, the pressure in the eye remains too high and drugs are needed to lower the pressure. You will need to visit your doctor often to adjust your drugs. He can also push on your eye, and cut or remove stitches to avoid a rise in pressure. If the new drain works too well, fluid may build up behind the inner lining of the eye (retina) and may cause a temporary loss of vision. You may need a second surgery to refill the eye.

After the surgery, you will not see as well. This will last for a short time. In rare cases, loss of vision may be permanent. There is a very rare risk of losing your eye or dying during surgery.

**How do I get ready?**
To be sure that you are healthy enough for the surgery, you will have a work up visit with your primary care provider. A brief physical exam, blood tests, and maybe an EKG (heart tracing) and chest x-ray will be needed.

You should stop taking aspirin, blood thinners, ibuprofen, anti-inflammatory arthritis medicines, or cold products with ibuprofen or aspirin one week before the surgery, since they can cause bleeding. Patients who take these or other blood thinners for health reasons should check with their doctors before stopping them.

A nurse will call you the day before surgery to tell you what time to arrive and give you eating and drinking instructions.
How is a trabeculectomy done?
Plan to go home the same day. When you arrive, you will have an IV started. You will get medicines that will help you relax, and drops will be put in your eye. Your eye and the area around it will be numbed so that you will feel no pain.

Your eye will be cleaned with a yellow liquid, and a cover will be put over your face to keep the area sterile. The surgeon pushes back the conjunctiva, the thin outer layer of the eye. A three-sided square cut is made through half of the layers of the white of the eye. This flap is lifted up, and a hole is made under the flap. The flap is gently put back down over the hole, and is held in place with two or more stitches. The conjunctiva is placed back over the cut. The fluid trickles out of the hole under the flap and collects under the conjunctiva to form the bleb. The surgery will take about 1 ½ hours. A patch and shield or just a shield is placed over the eye for protection. When your IV has been taken out and you feel well enough, you may return home. This will be about 2 hours after the surgery.

What do I do after I go home?
Leave the patch and shield in place for the first day and night. The eye will be checked the next day and at several follow up visits. You will be given drugs to help your eye heal and to prevent inflammation and infection. You should not take any of the glaucoma drugs you were taking before the surgery in the eye that had surgery. Keep using any medicines you may have been taking in the other eye.

Glasses or the eye shield should be worn at all times for the first few weeks. The eye shield should be worn at night to protect the eye. Do not do anything which makes you strain and hold your breath. Avoid lifting over 10 pounds. Do not bend over from the waist. If you need to pick up something, bend at the knees. You may resume sex when you are comfortable; be careful for the first few weeks.
Call the Eye Clinic right away if you have
  - A sudden loss of vision
  - Increased pain or discharge in the eye
  - A large increase in redness or swelling
  - Nausea or vomiting

Phone Numbers

University Station Eye Clinic, 8 a.m. to 4:30 p.m., Monday through Friday  
(608) 263-7171

When the clinic is closed, your call will be forwarded to the hospital paging  
operator. Ask for the “Eye Resident on Call”. Give the operator your name and  
phone number with area code. The doctor will call you back.

If you live out of the area, call 1-800-323-8942 and ask to be transferred to the  
above number.

Please call if you have any questions or concerns.