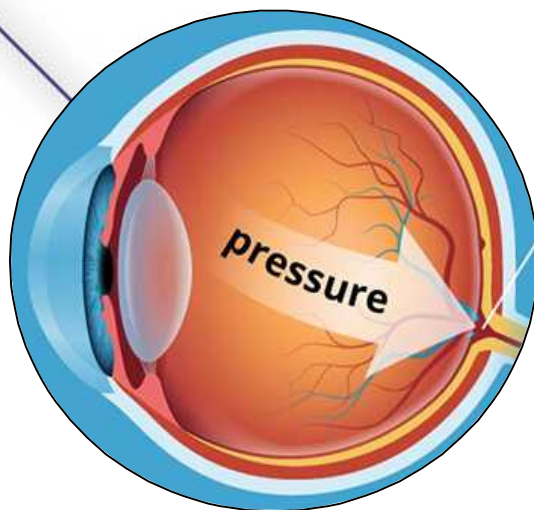




## Trabeculectomy surgery

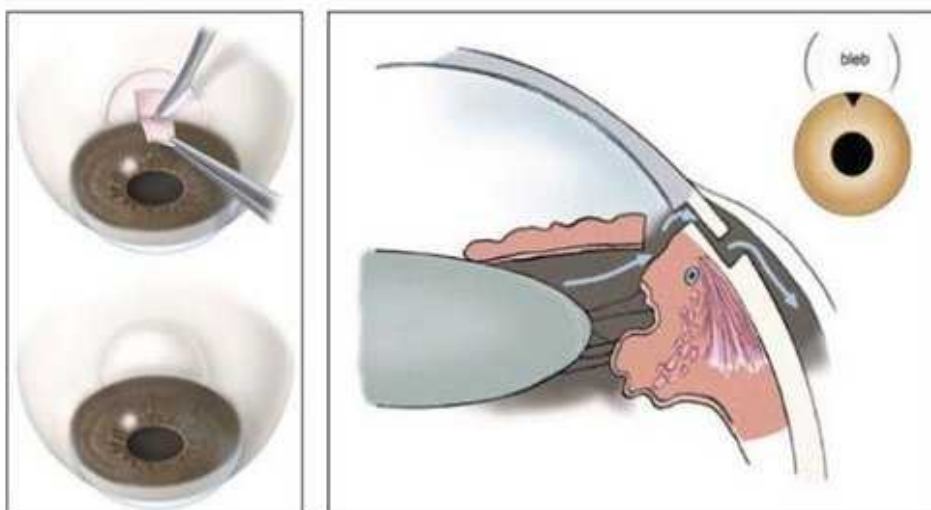
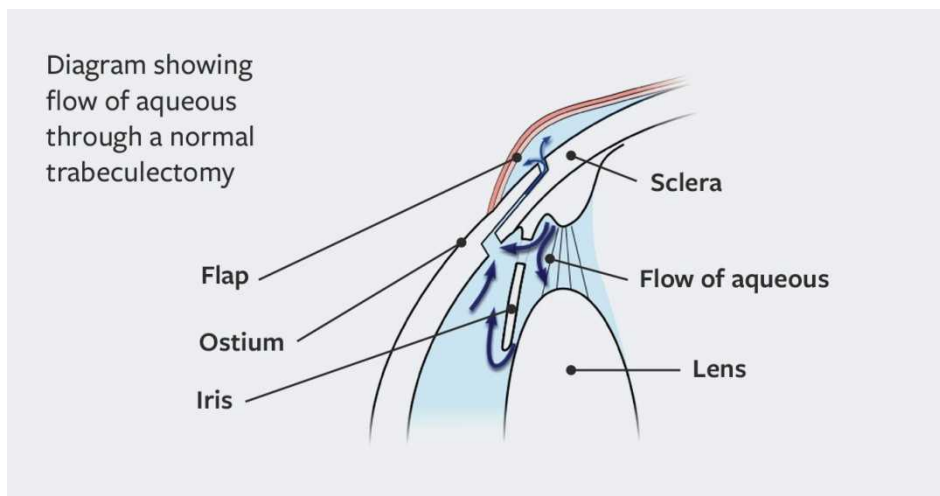


because sight is precious

## What is trabeculectomy?

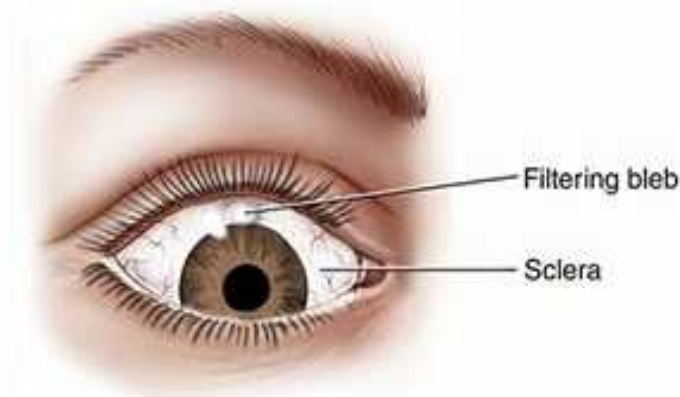
Trabeculectomy is an operation that is performed to reduce intraocular pressure in patients with glaucoma. This is achieved through a hole in the sclera of the eye in the upper part, below the upper eyelid. This hole is covered by a layer of the sclera, the flap, which acts as a kind of natural valve through which the aqueous humour, i.e. the eye fluid can flow. Since the reason for the glaucoma is the problematic flow of this fluid outside the eye, trabeculectomy offers a passage for the fluid to drain.

The fluid flowing through these tissues ends up in a reservoir like a blister which is called the bleb and is located under the surface of the eye, covered by the upper eyelid. In the flap, stitches are placed in such a way that the flow is regulated through the system, that is, they help to prevent the pressure from dropping excessively after surgery. These are called released or adjustable sutures.



The purpose of the operation is to reduce pressure in order to stop the course of glaucoma and prevent further reduction in vision or visual fields. Your vision will NOT improve after surgery.

The technique we use is called the Moorfields Safer Surgery System for which you can find more information online.



## **Preoperative instructions**

Apply all the drops that your doctor has advised you even on the morning of surgery. Blood clotting medications should be discontinued prior to surgery as directed by your ophthalmologist and cardiologist or personal doctor.

For patients who will undergo general anaesthesia, blood tests will be required and prescribed before surgery. All other coexisting conditions such as diabetes, hypertension and thyroid problems should be well managed before surgery.

## **Trabeculectomy surgery**

### **Anaesthesia**

Trabeculectomy is done more frequently under local anesthesia, unless your doctor or you for various reasons choose general anesthesia or light sedation. Patients who undergo surgery under local anesthesia will have no pain; however they might experience a feeling of heaviness and numbness at the time of injection of the topical anesthesia.

During surgery, patients are covered with sterile cloth that keeps the area aseptic and covers the entire face. If you suffer from claustrophobia, please tell your doctor to give you light sedation. If there is pain during surgery, you can inform your doctor or anaesthetist to administer additional local anesthesia. Throughout the operation you will be connected to machines to monitor blood pressure, pulse, breathing and oxygen saturation. An anesthesiologist is always present for any unforeseen event regarding your health during surgery.

You may feel the doctor's fingers on your face or hear the doctor and the staff talking. You can talk during surgery, but your head and eye should be still. The duration of the operation is about 45 minutes.

## **Mitomycin**

During surgery, a special drug will be used, which is used in oncology as a chemotherapy agent. In trabeculectomy, it is used to inhibit the healing process and keep the hole open. It is placed on the surface of the eye for a few minutes and then rinsed thoroughly to avoid residues.

## **After surgery**

Your eye will be red and irritated and your upper eyelid may be droopy. This might last for a few weeks. The bleb will not be visible in the mirror unless the upper eyelid is raised.

There will be no pain, but there might be discomfort due to the sutures, for which you can use plenty of tears and take light painkillers or anti-inflammatories. The foreign body sensation will subside after a few days.

Immediately after surgery, the eye will be closed and you will remain in the clinic for observation for a few hours. Then you will be able to go home with your eye closed and you will return the next day to take the

patch out and receive appropriate instructions regarding cleaning the eye and the precautions you need to take.

It is recommended to be accompanied on your first postoperative visit, as it will be difficult to drive yourself after surgery.

## **What to expect after surgery**

The eye's vision will be very blurry for several weeks after surgery. The degree of vision impairment depends on many factors and varies from patient to patient. The main reason for this, is the very low pressure that you will have for a period of time. The eye will return to its normal state after 2-3 months, when the appropriate glasses will be measured again for vision correction.

You will have a feeling of a foreign body due to the sutures and the incision, but it will gradually improve over time. The sutures will not absorb on their own, so your doctor should remove them within a few weeks.

You will be given a special protective shield that you should wear at night so that you do not accidentally squeeze the eye during sleep.

## **Postoperative treatment**

You should put antibiotic and steroid eye drops that your doctor will prescribe during the postoperative examination. It is important after surgery that you do NOT put pressure drops on the operated eye or continue taking Acetazolamide tablets if you were taking them before surgery, unless your doctor tells you otherwise. Drops in the unoperated eye should be instilled normally. The use of drops will continue for a couple of months. Do not stop or change the dose of drops without instructions from your doctor.

During your follow-up, sutures may need to be removed or adjusted, which are performed in the doctor's office. 5FU injections may be given

to inhibit healing. You may also need to go back into theatre to inject gel into the eye if the pressure is too low, or if the pressure creeps up again, in order to open the scar tissue (bleb needling revision).

## **Post-surgery activities**

It is important during the first two weeks to avoid intense physical activity and activities such as swimming, tennis, running, etc., but also exercises such as yoga. You can read and watch TV if you want. You should avoid bending over, clenching and rubbing the eye. Avoid dirty environment, dust, sea, etc.

You will need to be away from work for a while. This time will depend on the nature of your job and the condition of your other eye. Give yourself at least two to three weeks of recovery if all goes well.

After surgery you should avoid wearing contact lenses. Talk to your doctor about when this will be possible.

## **Success rates**

According to the literature, most patients achieve low pressure without the use of antiglaucoma drops after trabeculectomy, which seems to be clearly superior to drug or laser treatment.

The success rate depends on many factors such as type of glaucoma, age, previous surgeries, race and other factors, but in many studies it reaches 90% for several years. It is important to know that over time, the function of the operation may decrease and you may need some kind of surgery again at some stage in your life.

## **Complications**

Fortunately, serious complications such as infection (endophthalmitis) or bleeding are very rare, but cause a large reduction in vision if they

occur, so it is important that patient adheres to postoperative instructions to reduce this possibility.

In the first postoperative period the pressure is expected to be low. Sometimes low pressure may persist and rarely cause bleeding or detachment of the choroid, so it should be treated in surgery either by injecting viscoelastic (gel) or by resuturing the incision. Many times, adjustment of medications is enough to treat this complication.

The development of scar tissue may close the operation and require minor surgery in the operating room to loosen it up and inject anti scarring agents such as 5FU.

If you haven't had your cataract operated on before trabeculectomy, there's a good chance it will get worse after surgery. We usually choose to wait several months before proceeding with cataract surgery after trabeculectomy.

Many times medication can be added again to achieve lower pressures or an additional laser might be required.

For more information you can visit reliable web pages such as the following:

Bright Focus Foundation

<https://www.brightfocus.org/glaucoma/article/glaucoma-surgery-series-trabeculectomy>

Glaucoma Research Foundation

<https://glaucoma.org/learn-about-glaucoma/treating-glaucoma/>

National Eye Institute

<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/glaucoma>

Glaucoma UK

<https://glaucoma.uk/about-glaucoma/>

Royal College of Ophthalmologists

<https://www.rcophth.ac.uk/>





18 Robert Kennedy Street,  
Limassol, Cyprus, 3076



+357 25735353



+357 25732266



[contact@Pantheo.com](mailto:contact@Pantheo.com)



[www.pantheo.com](http://www.pantheo.com)