

Having trabeculectomy surgery for glaucoma

Department of Ophthalmology

Information for Patients

Produced: October 2020

Review: October 2023

Leaflet number: 206 Version: 2

What is glaucoma?

Glaucoma is a term used to describe a group of eye conditions where there is damage to the optic nerve in the eye. The optic nerve acts like an electric cable with over a million wires. It carries images from the eye to the brain. In the early stages of glaucoma there may be no symptoms, but as the optic nerve becomes more damaged, you can get loss of sight. Most people with glaucoma have high pressure within one or both eyes. The pressure inside the eye is known as the intraocular pressure (IOP) and depends on the amount of fluid within the eye.

Although there is no cure for glaucoma, treatments can lower the IOP and slow down or help to stop loss of sight. There are 2 main ways that pressure in the eye can be lowered. For most people with glaucoma, eye drops are able to lower the pressure, however, some people need surgery.

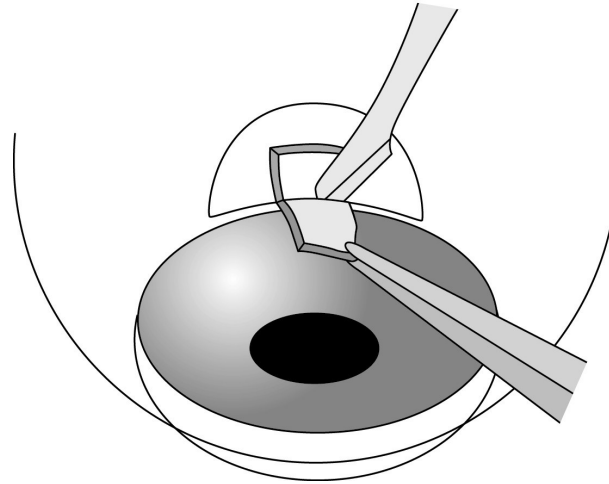
What is a trabeculectomy?

A trabeculectomy is an operation to help people with glaucoma. It is the most common type of surgery for glaucoma. The aim of a trabeculectomy is to lower the pressure inside the eye. This pressure is causing damage to the optic nerve. If the pressure is lowered then further damage to the optic nerve can be stopped. A trabeculectomy will not bring back vision that is already lost from glaucoma.

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During a trabeculectomy operation, a small hole is made in the wall of the eye (the sclera). Fluid from inside the eye (aqueous humour) is then able to drain through the trap door and out under the clear outer coat of the eye (the conjunctiva). If the hole was left completely open the pressure in the eye would be too low so the hole is covered with a thin trap door.

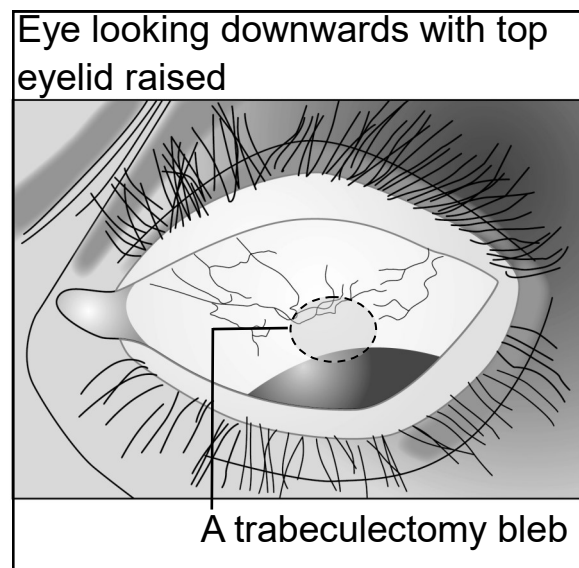
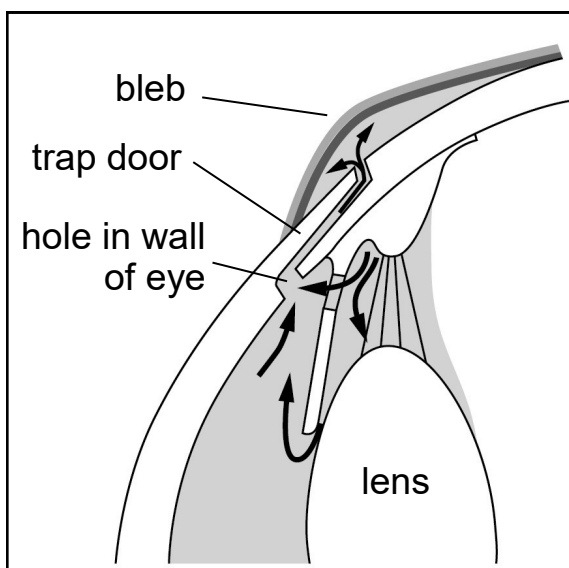


The draining fluid may cause the conjunctiva to become slightly swollen. This swelling is known as a 'bleb' and is usually hidden just under the upper eyelid.

The fluid that leaves the eye through the trabeculectomy is absorbed by other eye tissues.

After an operation (or any trauma) the body reacts by forming scar tissue and heals. Scarring can be a problem after a trabeculectomy. If the trap door starts to scar and heal then this may stop fluid from leaving the eye and the pressure inside the eye may rise again.

To help stop scarring we often use an 'anti-scarring' medicine during surgery (either mitomycin C or 5-fluorouracil). They are put onto the surface of the eye for 3 to 5 minutes during the operation, or given as injections after surgery.



What can I expect during the operation?

Most people do not need to stay in hospital overnight for the operation. Most people are able to be awake during the surgery and a local anaesthetic is all that is needed to numb the eye and the surrounding area. This will be an injection around the eye. Depending on the person, sometimes a general anaesthetic is needed.

The operation lasts about 45 minutes to 1 hour.

What happens after surgery?

Straight after the operation a clear plastic shield will be put over your eye to protect it from accidental knocks.

You will be able to go home and should be discharged with 2 sets of eye drops.

You will need to come back the next day for an examination. At this examination we will take off the eye shield for you.

For the first few days, and sometimes weeks after the surgery, it is normal for the eye to appear red and it may feel prickly, like something is in the eye. This is due to the surgery itself and sometimes the stitches that we use. It is also normal for the vision to be a little blurred. The discomfort and blurry vision should get better with each day after surgery.

If you feel your vision is getting worse or the eye is becoming more uncomfortable please contact the hospital or go to Eye Casualty.

After the examination you will be able to go home with eye drops for the operated eye. The eye drops used after a trabeculectomy operation are usually an antibiotic (such as chloramphenicol) and an anti-inflammatory steroid (such as dexamethasone or Pred Forte). For the first few weeks the steroid eye drops will need to be used every 2 hours during the day. The antibiotic drops are usually used for 4 weeks but the steroid drops need to be used for several months in order to help stop scarring. This will be explained to you in detail after your surgery.

These drops are usually all that is needed in the operated eye but please remember to continue using any eye drops you were using in your other eye.

How often will I need to be seen in clinic for a follow-up?

The eye pressure can change after your operation and so it is likely that you will need to visit the clinic once a week for the first month.

Sometimes changes to the bleb may be needed. For example, if the pressure in the eye is too high, stitches may need to be removed (or broken with a laser) or we may ask you to massage the eye.

In the first few weeks after the operation we may also need to inject more anti-scarring medicines around the eye. If the scarring becomes very bad we may need to do a small operation to release the scar tissue.

It may take 2 to 3 months for the eye to feel completely normal. At this point, you will be able to have a glasses test as the operation may have changed your prescription slightly.

What is the success rate of surgery?

Most people who have a trabeculectomy will have a low eye pressure without the need for any more glaucoma eye drops. However, the success rate depends on a number of risk factors including the type of glaucoma, previous surgery, age and ethnic background. In low risk patients the success rate is over 90%. Overall in Leicester, almost 85% of patients have an eye pressure of less than 21 without eye drops 1 year after surgery, and 75% of people have an eye pressure of less than 16. A normal eye pressure can be between 10 and 21.

What are the risks of surgery?

As with any operation there are risks of having a trabeculectomy, however the risks are small. The main risks are that the pressure will stay too high or too low after the operation, or the eye becomes infected.

When the pressure is too high after surgery, this is usually because the trap door has become scarred and stuck down as the eye heals. Sometimes the pressure in the eye can be very good straight after surgery, but then can become worse again a few weeks or months (or even years) later.

Very low pressure, or a sudden drop in pressure, can lead to a bleed inside the eye (choroidal haemorrhage). This is a rare but very serious complication. If the pressure in your eye is very low you may need further surgery. This could include having the trap door tightened. However, sometimes changing how often you use your eye drops can be enough. It is uncommon (only 4% of patients) to return to theatre after surgery in Leicester because the pressure is too low. The risk of serious bleeding or infection in the eye is uncommon (around 0.2% of the time).

Long-term risks

The long term risks of a trabeculectomy are infection, discomfort and cataract formation.

- Infection

While the risk of infection after surgery is rare, there is a very small risk that the bleb might become infected. If a patient who has had a trabeculectomy gets a red eye or conjunctivitis, it is important to have the eye looked at by an eye doctor. While infection is very rare, it may be serious.

- Discomfort

In some people the bleb can become large and lumpy. The bleb can push out the eyelid or cause the eyelid to be raised or droopy. It is common, in around 10% of patients, for a large bleb to upset the tear layer in the eye causing a feeling of dry eye. In most, this is mild and does not need treatment. However, lubricating eye drops may be needed. Sometimes the discomfort is more severe and surgery is needed to make the bleb smaller.

- Cataract

In patients who have not had cataract surgery there is a small risk that a trabeculectomy may make the cataract you already have worse. In one study the likelihood of needing cataract surgery within 3 years of trabeculectomy was very common (12% of patients). This is not as common (only 3% of patients) in those who were treated with glaucoma medication but did not have a trabeculectomy.

What are the risks of not having surgery?

If your doctor is talking about a trabeculectomy with you then it is likely that your glaucoma is getting worse or the pressure is too high within your eye. If this is not treated then there is a risk of loss of vision which cannot be fixed.

What activities should I avoid after surgery?

It is important to avoid energetic activity straight after you operation. This includes most sports such as swimming, jogging and contact sports. Watching television, using a computer and reading will not harm the eye and can be continued without worry. If the IOP is very low your doctor may ask you to stop all activity until the pressure has increased.

When can I go back to work?

The length of time off work depends on a number of factors such as your job and the vision in your other eye. Typically, all being well, someone working in an office environment would need 2 weeks off. If your work requires heavy labour, or work in a dusty environment you will need longer.

What happens once I'm on the waiting list for this surgery?

Before you have the operation you will need to have a pre-operative assessment with one of our eye nurses. This is usually done on the same day that you are having the surgery. The aim of the pre-assessment is to find out if there are any problems with your general health that we need to think about when you come for the operation.

What to do if you have any concerns

If you want to discuss the procedure in more detail or have any other queries that cannot wait until your appointment, you can contact the glaucoma specialist nurse on **07950 857406**.

If you think you may have a problem after your treatment you should contact **Eye Casualty on 0116 258 6273**, or go to the **Eye Casualty Department** located in Windsor Eye Clinic, Level 1, Windsor Building, Leicester Royal Infirmary:

Opening times: Monday to Friday, 8.30am to 4.30pm

Saturday & Sunday, 8.30am to 12.30pm

If your problem happens outside of these hours and you feel that it is urgent, you should go to the main Emergency Department.

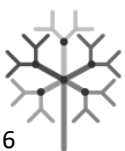
اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

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