

Glaucoma surgery:

Trabeculectomy



Glaucoma UK helpline

If you have questions about anything to do with glaucoma, contact our helpline on:



01233 648 170

Monday to Friday 9.30am to 5.00pm

If you call out of hours and leave a message, we'll return your call as soon as possible.
Calls are charged at your standard network cost.



Other ways to find out more

Email: **helpline@glaucoma.uk**

Visit our website: **glaucoma.uk**

Help us keep our services free

Glaucoma UK is the UK's only charity solely focused on ending preventable vision loss from glaucoma. Everyone who needs help and information about glaucoma should be able to get it for free. That's why there's no charge for our booklets and services. We rely on donations, and every contribution truly matters.

If you'd like to contribute to the cost of this booklet or help fund our services, please go to **www.glaucoma.uk/donate** or call **01233 648 164**. We really could not continue without our amazing supporters. Thank you.

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Key points

Trabeculectomy is a form of eye surgery for glaucoma.

Trabeculectomy helps to lower eye pressure and prevent future vision loss.

After trabeculectomy surgery:



You'll have several follow-up appointments at the eye clinic.



You'll need to take at least two weeks off work, education or training.



It may take up to three months for your vision to settle.



Most people have good eye pressure and only mild, short-term side effects.



You'll need to use eye drops for two to three months to help your eye heal.



Contact the eye clinic straight away if you get any side effects or symptoms that worry you.

What is trabeculectomy?

Trabeculectomy is a form of eye surgery for glaucoma.

Your eye doctor is most likely to offer you trabeculectomy surgery if:

- your eye pressure is still too high after other more common treatments such as eye drops or laser treatment;
- your glaucoma is advanced.

In trabeculectomy surgery, your eye doctor makes a new route for fluid to drain out of your eye.

Because more fluid drains out of your eye, the pressure inside your eye falls.

Lower eye pressure slows or stops future vision loss from glaucoma.



If you need trabeculectomy in both eyes, your eye doctor will do it in one eye at a time. You'll have at least a few weeks and often longer to recover before trabeculectomy in your other eye.

Although eye surgery can be scary, it may help to remember that trabeculectomy works well for most people. Most people only get mild, short-term side effects. More severe or long-term side effects are rare. You need to balance the possible risks of trabeculectomy against the possible risks to your vision of not having it.

Talk to your eye doctor about any concerns you have.

What is trabeculectomy?



Our helpline can also answer many questions or pair you for a chat with someone who's already had the surgery.



A note on the name

Trabeculectomy is sometimes shortened to “trab” or “traby”.

A few treatments for glaucoma include words that begin with the letters “trab”. This includes a common laser treatment called “selective laser trabeculoplasty” (SLT) and less common surgeries called trabeculotomy and trabectome. It's easy to get them confused. This booklet is about trabeculectomy surgery.

What other treatment options might I have?

Before agreeing to trabeculectomy, talk to your eye doctor about all your treatment options.

There are lots of treatment options to lower eye pressure and slow down possible future vision loss. Eye drops and laser treatment are most common. Different types of surgery are sometimes options.

You can choose to have no treatment. If you're thinking of doing this, talk to your eye doctor about the possible risks.



Having no treatment increases the risk of vision loss caused by glaucoma.

What is glaucoma?

Glaucoma is a group of common eye diseases where your optic nerve has become damaged.

Your optic nerve connects your eye to your brain, so damage to this nerve affects your vision. How glaucoma affects vision is different for each person, but most people keep good vision.



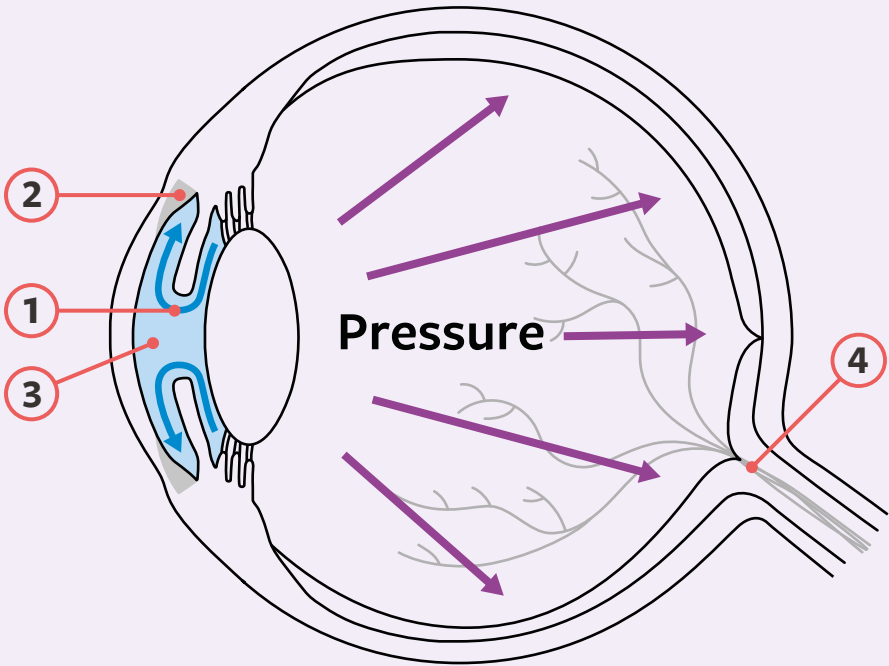
Glaucoma is often linked to a build-up of fluid, raising pressure inside the front of your eye. This pressure is known as eye pressure or intraocular pressure (IOP).

What is eye pressure?

The front of your eye contains a watery fluid called **aqueous humour**, **aqueous fluid** or just **aqueous**. Aqueous helps your eye keep its shape and brings nutrients to the front of your eye. Aqueous is made inside your eye and drains out through tiny drainage channels called the **trabecular meshwork**.

If aqueous cannot drain out of your eye properly, it builds up and eye pressure rises. High eye pressure can damage the **optic nerve**.

▼ How increased pressure at the front of the eye can affect the optic nerve at the back of the eye



1. Aqueous flows through the pupil
2. Poor drainage of aqueous through the trabecular meshwork
3. Too much aqueous stays in the eye, increasing pressure
4. Increased pressure damages the optic nerve

Before your surgery

You and your eye doctor need to decide if trabeculectomy is right for you. And you need to plan for the surgery and recovery.

Why do I have an eye clinic appointment before surgery?

A few days before your trabeculectomy, you'll have an eye clinic appointment.

This is so that a nurse can check that you're well enough to have the surgery and answer any questions you have. Tell the nurse about any health conditions you have or any medicines you take.

Tell the nurse about any medicines you take to thin your blood. The nurse or your eye doctor may ask you to stop taking these medicines for a few days before surgery.

Talk to the nurse about any questions or concerns you have.

How do I get ready for surgery?

To make your trabeculectomy appointment easier for you:

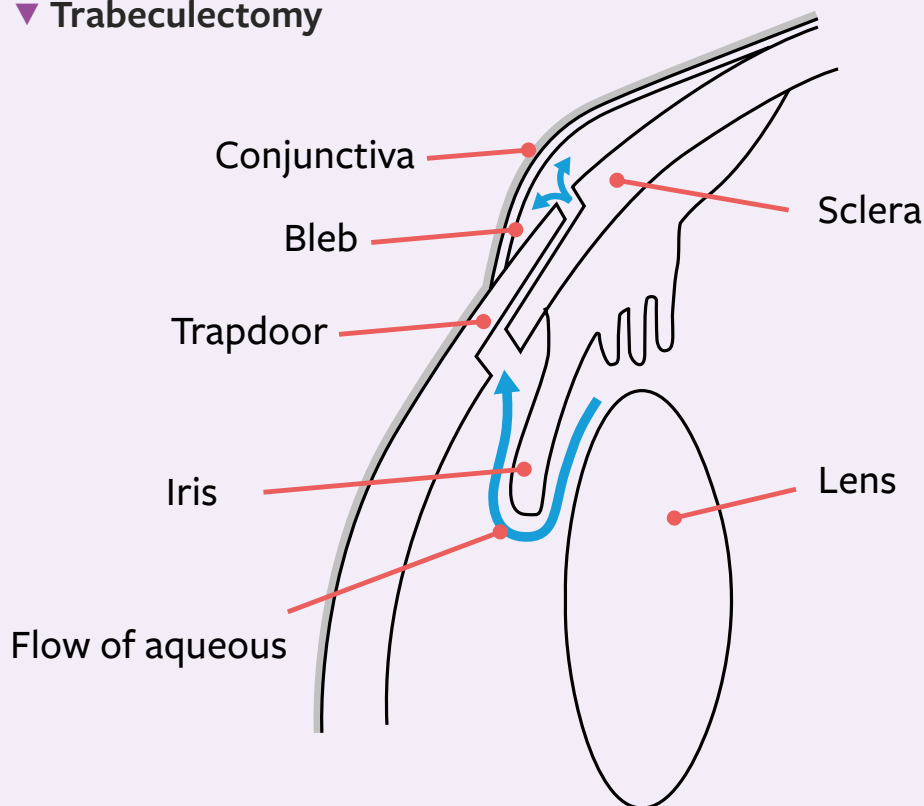
- Plan how you will get to and from your appointment. Do not drive yourself home.
- Take any eye drops or tablets for glaucoma as normal before your trabeculectomy, unless your eye doctor or nurse tells you to stop.
- Make a list of questions or concerns, and ask about them before the surgery.
- You'll usually be able to go home on the same day as your trabeculectomy, but you'll be at the eye clinic for a few hours. If staying overnight would be better for you, talk to your eye doctor about this before your surgery appointment.

During surgery

You'll go into an operating theatre at the hospital to have your trabeculectomy.

The surgery usually takes around 45–60 minutes.

▼ Trabeculectomy



Most people have trabeculectomy surgery under local anaesthetic. Your eye doctor will put drops into your eye to numb it. They'll then give you injections around your eye to numb it more and stop your eye moving. You'll be awake, but your eye will be numb. You might feel a little discomfort but should feel no pain. If you feel anxious, you can ask for medicine to help you relax.

Some people have trabeculectomy surgery under general anaesthetic. If you'd prefer general anaesthetic, talk to your eye doctor about it before your appointment. Some eye doctors prefer doing it this way.

Your eye doctor makes a tiny cut, like a **trapdoor**, in your **sclera**. Your sclera is the tough white outer layer of your eye (the white of your eye). They cover this trapdoor with the thin outermost layer of your eye (your conjunctiva). They put stitches to hold the trapdoor and the conjunctiva in place.

Aqueous drains slowly out of your eye through the trapdoor, and collects in a small blister (called a **bleb**) under your top eyelid. Aqueous is absorbed into your bloodstream from the bleb. It does not add to tears.

Afterwards, your eye doctor will put a pad or clear plastic shield over your eye to protect it. Keep the pad or shield on until your eye clinic appointment the next day.

You'll probably go home on the same day as trabeculectomy surgery, but its possible that you may need to stay for the night.

Before you go home:

- Your eye doctor will give you eye drops to take home.
- Ask how to contact the eye clinic in case you have any concerns about your eye.

After your surgery

It takes several weeks to recover from trabeculectomy. Be gentle on yourself, and talk to your eye doctor about any concerns you have.

How long does it take to recover?

You may get some double vision for a few hours. This will stop once the local anaesthetic wears off and muscles around your eye can fully work again.

How your eye feels

Your eye will be numb for a few hours after the surgery.

When feeling comes back, your eye might feel sore or scratchy. If it's painful, you can take pain relief tablets.



If pain in your eye gets worse, contact the eye clinic.

Your eye should start to feel better after a couple of days but might take a few weeks to feel completely normal.

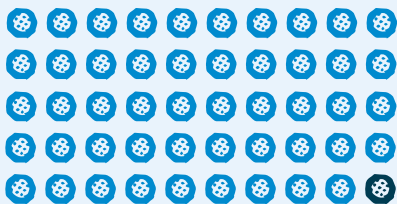
Soreness in your eye after trabeculectomy is partly due to the surgery itself and partly due to the stitches. Your eye doctor usually takes the stitches out in one of your follow-up appointments a few weeks after surgery. When they do this,

they'll give you eye drops first to numb your eye, and it only takes a few minutes.

Most people cannot feel the bleb. If you can feel yours, tell your eye doctor. They can help.

How your eye looks

For a few weeks after surgery, your eye might look bloodshot (red) and your eyelids may be swollen or droopy. Your eyelid usually recovers when you finish the eye drops and your eye doctor takes out the stitches.



◀ Around **1 in 50** people has a droopy eyelid for longer, possibly for ever. Your eye doctor can usually put this right with eyelid surgery.

Within a few months your eye should look the same as it did before surgery.

Eye drops after trabeculectomy

Before you go home after your surgery, your eye doctor will give you eye drops to take home. You'll need to use them for two–three months.

Some of the eye drops prevent infection. Most people need to use these about four times a day.

Other eye drops prevent your eye swelling and getting sore. Most people need to use these about eight times a day.

You need to put the eye drops in throughout the day, but you do not need to wake during the night to use them. Your eye doctor might also give you tablets to stop your eye swelling.

Your eye doctor will give you a month's supply of eye drops. Ask your GP or eye doctor for a repeat prescription after this. Keep using the eye drops until your eye doctor tells you to stop.

If you usually use eye drops for glaucoma, your eye doctor might ask you to stop using them in your eye that's had trabeculectomy. Remember to keep putting your eye drops for glaucoma in your other eye, if needed. Always talk to your eye doctor before stopping or changing your eye drops.

How do I use eye drops?

Always read the patient information leaflet that comes with your eye drops. It has important information about how to store and use your drops and about possible side effects.

It's very common to find it hard to put in eye drops. There are lots of ways to put eye drops in, and lots of aids that can make it easier. For help, contact our helpline or ask a healthcare professional such as your eye doctor, a nurse, eye care liaison officer, pharmacist or optometrist.

Top tips:

- Wash your hands before and after using your eye drops.
- If two drops go into your eye, that's okay.
- After putting in your eye drops, gently close your eye. With a finger, press lightly on the corner of your eye near your nose for a couple of minutes. This blocks your tear duct, and helps keep the eye drop in your eye where it's needed.
- More than one type of eye drop? Wait at least 5 minutes between each one.

Follow-up appointments

You'll have a series of follow-up appointments to check that your eye is okay.

The first appointment will usually be the day after your surgery. This is when your eye doctor will take the pad or shield off your eye.

If all's well, you'll typically then have weekly appointments for four weeks. You might have more appointments if your eye pressure is too high or too low.

If you live far from the hospital where you had your surgery, you might be able to have some appointments at an eye clinic closer to home.

At these appointments, your eye doctor might give you other treatment to make sure that the right amount of aqueous drains out of your eye. They may:

- Remove some of the stitches in the trapdoor
- Massage your eye
- Give you injections to prevent scarring

If you need any treatment, your eye doctor will numb your eye first.

Contact lenses and glasses



If you wear contact lenses, talk to your eye doctor about them.



You must not wear contact lenses for at least four weeks after trabeculectomy. Only start to wear them after your eye doctor tells you it's okay.

Longer term, some people can wear contact lenses after trabeculectomy and others cannot.

If you wear glasses or contact lenses, you may need new ones after trabeculectomy.

If you've not worn glasses before, there's a small chance you might need to start wearing them after trabeculectomy.

Before getting new glasses or lenses, talk to your eye doctor and give your vision time to clear. As a rough guide, expect to wait three months.

Going back to normal activities



Sleep

You'll need to wear an eye shield at night for a couple of weeks to stop you accidentally hurting your eye when you're asleep.

Showering and washing your hair

Be careful not to get water in your eye for a few weeks.

Driving

If you drive, ask your eye doctor to tell you when you're safe to do so. You must not drive for a few days after trabeculectomy. You may need to wait for a few weeks.

Leisure activities and exercise

Gentle activities such as watching television and reading are fine. You might find that your eye tires more easily for the first few days after surgery.

In general, for the first few weeks after your trabeculectomy, avoid:

- **Strenuous activity** (such as tennis, jogging and contact sports)
- **Swimming and other water sports** (they make infection more likely)
- **Wearing goggles** (goggles increase pressure on your eye)
- **Yoga or Pilates poses** where your head is below your heart
- **Bending your head forward** (for example gardening. If you want to pray, you can kneel but do not bow your head to the floor)

Sometimes, eye pressure is low for a time after surgery. If your eye pressure is very low, your eye doctor might ask you to stop all exercise until your eye pressure has risen.

Work, education or training

You'll need to take at least two weeks off work, education or training. Exactly how long you need to take off depends on the pressure in your eye and on the work you do. How much you can see with your other eye and how much you rely on your vision may also make a difference. Ask your eye doctor about this.

Flying

It's safe to fly after trabeculectomy, but as you'll have several eye clinic appointments in the weeks after surgery, it's best not to travel straight away. Wait until your eye doctor says it's okay.

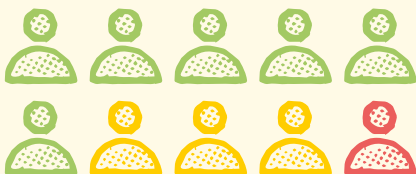
How well does trabeculectomy work?

Trabeculectomy works well for most people. Talk to your eye doctor about how well it might work for you.

For most people, trabeculectomy lowers eye pressure more than eye drops or laser treatment.

Lower eye pressure slows or stops future vision loss from glaucoma.

For every ten people who have trabeculectomy around:



Six can stop using eye drops

Three need to keep using eye drops

One may need more surgery

Trabeculectomy reduces the risk of future vision loss. Any vision loss you already have from glaucoma is irreversible. This can be very difficult to come to terms with.



Our helpline is there for you to talk through how you're feeling as well as the practical side of things.

01233 648 170

Monday to Friday 9.30am to 5.00pm

What are the side effects and risks?

For a few days or weeks after trabeculectomy, it's very common for:

- Your eye to feel sore (you can take painkillers)
- Your eye to feel scratchy
- Your eye to look red
- Your eyelid to droop
- Your vision to be blurry
- Your eye pressure to be low

Over time, the bleb might get bigger. If it does, you might find that:

- **Your eyelid is raised or droopy**
- **Your eyes get dry or uncomfortable**
- **People can see your bleb**



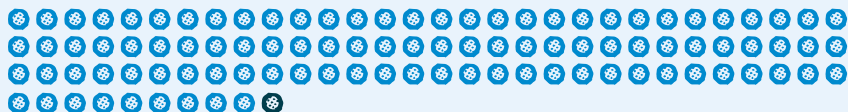
If your bleb gets bigger, talk to your eye doctor. They can prescribe lubricating eye drops, ointments or gels to make your eye more comfortable. They might offer you more surgery to make the bleb smaller.

Serious problems after trabeculectomy are rare. They include:

- **Cataracts.** A cataract is clouding of the lens. Anyone can get cataracts, but having a trabeculectomy increases the risk. Most cataracts can be treated.
- **Infections.** There's a small, life-long risk of infection in the bleb. If your eye ever gets red, sticky or painful, contact the eye clinic straight away. Early treatment helps protect your eye and vision.

What are the side effects and risks?

- **Vision loss.** Blurry vision for a few weeks after trabeculectomy is common, and it'll get better in time.



▲ More serious or sudden vision loss is uncommon, affecting fewer than **1 in 100** people. People with advanced glaucoma may be at higher risk.

- **Very low eye pressure.** It's common for eye pressure to be a little low for a while after trabeculectomy, and it often gets better by itself. But very low eye pressure or a quick drop in pressure can cause bleeding at the back of your eye.

▲ This is uncommon, affecting around **1 in 250** people. But it's serious because it can cause vision loss. Low pressure is most common soon after trabeculectomy but it can happen at any time.





Go to Accident and Emergency if you notice any signs of low eye pressure, including:

- A dull ache or throbbing in your eye
- Blurry or distorted vision

If your eye pressure is very low, your eye doctor might suggest treatment such as:

- A small surgery to adjust the stitches in your trabeculectomy
- An injection of a gel, called viscoelastic, into your eye

Top tips

Everyone's experience is different, but here are some top tips from people who've had trabeculectomy.



“Write a list of questions before your appointments, and take your list with you. It’s easy to forget what to ask at appointments.”



“It’s easy to get muddled or forget what the eye doctor tells you. Go to your appointments with a friend who can write down important information for you.”



“Put your eye drops in when you’re in a well lit room. It makes it easier to see when the tip of the bottle is above your eye so that the drop goes into your eye.”



“Do not worry if your experience is different to what’s in a booklet or what someone else tells you.”



“Be gentle on yourself. Take it easy for a few weeks after surgery.”

Further help and information from Glaucoma UK

We offer other free information booklets on a range of topics, including:

- Different types of glaucoma
- Treatments such as eye drops, laser treatment and surgeries
- Driving and glaucoma

For a full list of available booklets and to order or download them, visit our website or contact our helpline.

As well as our information booklets, helpline and website, there are lots of other ways we can help you to live well with glaucoma.

Some examples of our services are:

- **Buddy scheme:** If your eyecare professional recommends laser treatment or surgery, we can pair you up for a chat with someone who's already had the treatment.
- **Glaucoma support groups:** Find out more about glaucoma, share information, and ask questions. Visit our website or call our helpline to see if there's a group near you and to find out about online groups.
- **Health Unlocked:** Join our online forum and talk to other people with glaucoma. Visit **healthunlocked.com/glaucoma-uk** to get involved.

For more information, to get involved or to give us feedback contact our helpline, visit **www.glaucoma.uk/more** or scan the QR code.



About Glaucoma UK

Glaucoma UK is the charity for people with glaucoma.

We raise awareness of the risks of glaucoma, and offer help and support to people living with the disease. We fund high-quality research into prevention, diagnosis, treatment and, hopefully one day, a cure. We also work with professionals to influence policy and practice with the goal of improving services. Our aim is to end preventable glaucoma vision loss.



Raising awareness

Helping people understand why they may be at risk of glaucoma.



Influencing policy and professional practice

Advocating for glaucoma patients with those who develop policy, commission services and deliver care.

Providing support

Ensuring people can access reliable help and advice when and how they need it.



Supporting research and development

Funding high-quality research into glaucoma prevention, diagnosis, treatment and cure.



Keep in touch

We'd love to keep in touch.

Visit our website to sign up for our email newsletter to hear more about our work and how we can help you.

Join Glaucoma UK

Join Glaucoma UK and become a member of our supportive glaucoma community.

You'll receive exclusive benefits, including our magazine full of news and information about glaucoma. Find out more at **www.glaucoma.uk/membership** or call **01233 648 164**.

Disclaimer

The information in this booklet was correct at the time of last review and is intended as a general guide only.

Always ask an eyecare professional or doctor for advice specific to you.

A list of sources is available on request.

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- Volunteers on our readers' panel

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