

OP03 Glaucoma Surgery (Trabeculectomy)

Expires end of October 2025

You can get information locally from the main switchboard on 01254 263 555.

You can also contact:

You can get more information from www.aboutmyhealth.org

Tell us how useful you found this document at www.patientfeedback.org



Royal College
of Surgeons
of England



THE ROYAL
COLLEGE OF
SURGEONS
OF EDINBURGH



Patient Information Forum

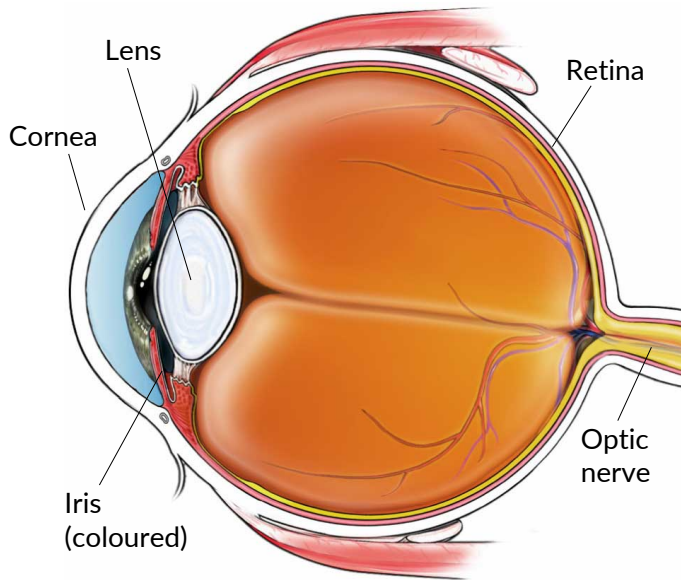
eidohealthcare.com

EIDO
HEALTHCARE

UNITED KINGDOM

What is glaucoma?

The optic nerve carries images from the retina (light-sensitive layer at the back of your eye) to your brain, allowing you to see.



Cross-section of the eye

Glaucoma is the name given to a group of conditions that cause damage to the optic nerve where it leaves your eye. It affects 1 in 50 people over the age of 40. The risk is higher the older you are. Glaucoma can cause loss of vision.

Your surgeon will assess you and tell you if glaucoma surgery is suitable for you. However, it is your decision to go ahead with the operation or not.

This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, it is important that you ask your surgeon or the healthcare team.

Once all your questions have been answered and you feel ready to go ahead with the procedure, you will be asked to sign the informed consent form. This is the

final step in the decision-making process. However, you can still change your mind at any point.

How does glaucoma happen?

Glaucoma is usually caused by an increase in pressure in your eye. Fluid (aqueous) is constantly being made in your eye and drains out slowly into your bloodstream. The pressure in your eye can increase if the fluid does not drain properly.

Most people do not realise there is a problem in the early stages. This is because it is usually painless and there are no other symptoms. Your peripheral (or side) vision is usually affected first.

Sometimes the optic nerve can be damaged, even though the pressure in your eye is within the normal range.

What are the benefits of surgery?

The aim is to lower the pressure in your eye to delay further damage to the optic nerve. This should prevent further loss of vision.

Are there any alternatives to surgery?

You can use eye drops to lower the pressure. If they do not work, the healthcare team will usually suggest laser treatment or surgery.

Laser treatment may be suitable for you but is often less effective than surgery in lowering the pressure in your eye. If appropriate, your surgeon will discuss laser treatment with you.

There are other types of glaucoma surgery, including the following:

- Tube-shunt surgery, where a tiny tube is placed into your eye to drain fluid.
- Trabecular stent bypass, where a hollow metal tube is inserted in your eye to help drain fluid.
- Deep sclerectomy, where some of the white part of your eye (the sclera) is removed to create a thin membrane. This makes it easier for fluid to drain from the eye. Sometimes an implant may also be used to improve the flow of fluid.
- Visco canalostomy, where the drainage tubes in your eye are widened to help fluid drain more easily.
- Trabeculotomy, where an electric current is used to remove a part of the drainage tubes in your eye.

Depending on the type of glaucoma you have, some of these types of surgery may not be suitable for you. Your surgeon will be able to discuss the options with you.

What will happen if I decide not to have the operation?

Your optic nerve will become increasingly damaged. If you leave it untreated you are likely to lose vision in your eye. Surgery will not improve your vision but may prevent it from getting worse and delay further damage.

What does the operation involve?

The healthcare team will carry out a number of checks to make sure you have the operation you came in for and on the correct side. You can help by confirming to your surgeon and the healthcare team your name and the operation you are

having. Various anaesthetic techniques are possible, including a general anaesthetic or a local anaesthetic that is injected around your eye to numb it. Your anaesthetist or surgeon will discuss the options with you.

The operation usually takes 45 to 75 minutes.

Glaucoma surgery involves draining some of the fluid in your eye to lower the pressure. Your surgeon will make a small flap and draining hole in the lining of the white of your eye. The fluid will drain out into a space in the outer lining of your eye and collect just under your eyelid.

Your surgeon will place small stitches in the flap created in the white of your eye. They may treat the surface of your eye (conjunctiva) with anti-scarring medication to improve the chance of the long-term success of the operation.

What should I do about my medication?

Make sure your healthcare team know about all the medication you take and follow their advice. This includes all blood-thinning medication as well as herbal and complementary remedies, dietary supplements, and medication you can buy over the counter.

How can I prepare myself for the operation?

Keeping in the same position

If the operation is performed under a local anaesthetic, you will need to lie still and flat during the operation. If you cannot lie still and flat, let your surgeon know.

Your face will be covered with a cloth to allow your surgeon to work on a clean

surface. Air will be blown gently towards your nose. If you are claustrophobic (afraid of being in small spaces), let your surgeon know

Lifestyle changes

Speak to the healthcare team about any vaccinations you might need to reduce your risk of serious illness while you recover. When you come into hospital, practise hand washing and wear a face covering when asked.

If you smoke, stopping smoking now may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

What complications can happen?

The healthcare team will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had this operation. Your doctor may be able to tell you if the risk of a complication is higher or lower for you. Some risks are higher if you are older, obese, you are a smoker or have other health problems. These health problems include diabetes, heart disease or lung disease.

Some complications can be serious.

You should ask your doctor if there is anything you do not understand.

Your anaesthetist or surgeon will be able to discuss with you the possible complications of having an anaesthetic.

General complications of any operation

- Bleeding during or after the operation. Usually there is little bleeding and your eye may be slightly red. If it is very red and painful, let your surgeon know as this is unusual.
- Infection, which may cause blurred vision or even permanent loss of vision (risk: up to 4 in 1,000). Most infections usually happen in the first week but the risk is lifelong. If your eye becomes red and painful, and your vision becomes blurred, let your surgeon know straight away. You may need other procedures to control the infection.
- Allergic reaction to the equipment, materials or medication. The healthcare team are trained to detect and treat any reactions that might happen. Let your doctor know if you have any allergies or if you have reacted to any medication, tests or dressings in the past.
- Chest infection. Your risk will be lower if you have stopped smoking and you are free of Covid-19 (coronavirus) symptoms for at least 7 weeks before the operation.

Specific early complications

- Heavy bleeding inside your eye during or after surgery. This may cause permanent loss of vision even if treated (risk: 5 in 10,000).
- Bleeding into the front of your eye which makes vision worse (risk: up to

3 in 10). This usually gets better on its own within about a week.

- Inflammation in your other eye (sympathetic ophthalmia) (risk: less than 1 in 1 million). This is a potentially serious complication which may be treatable. If you develop pain or blurred vision in your other eye, let your surgeon know.
- Too much fluid draining or low pressure within the eye following surgery (risk: 2 in 10). This can increase the risk of bleeding and lead to loss of vision. This usually settles but you may need to wear a tight eye pad or contact lens, or have an injection in your eye. You may need another operation.
- Sharp rise in eye pressure, making you feel sick, and causing pain and headaches (risk: up to 2 in 1,000). Your surgeon may be able to release one of the stitches in the white of your eye to allow more fluid to drain. You may need laser treatment or another operation.

Specific late complications

- Developing a cataract (when the lens becomes cloudy) (risk: up to 2 in 10). This is more common after this procedure.
- Reduced vision over time caused by glaucoma (risk: 1 in 10). This can happen even if the pressure in your eye is well controlled after surgery.
- Failure of the operation (risk: 1 in 10). This usually happens if the small hole made to drain the fluid becomes scarred and blocked. You may need eye drops, further treatment or another operation to control the pressure.

Consequences of this procedure

- Pain is usually only mild and easily controlled with simple painkillers such as paracetamol. You may feel pressure or mild discomfort. If you are in severe pain, let your surgeon know as this is unusual.

How soon will I recover?

In hospital

After the operation you will be transferred to the recovery area and then to the ward or day-case unit. You should be able to go home after a few hours. However, your doctor may recommend that you stay overnight.

Your surgeon will need to check your eye the day after the operation. They will see you several times in clinic during the first few weeks and may perform minor adjustments.

Stitches may be loosened or removed so the fluid can drain better. Your surgeon may massage the area around the draining hole, inject anti-scarring medication into the surface of your eye and scrape away any scar tissue that may be blocking the hole. These procedures are usually painless and are performed after your eye has been numbed using local-anaesthetic eye drops.

If you are worried about anything, in hospital or at home, contact the healthcare team. They should be able to reassure you or identify and treat any complications.

Returning to normal activities

If you had sedation or a general anaesthetic and you go home the same day:

- A responsible adult should take you home in a car or taxi and stay with you for at least 24 hours.
- Be near a telephone in case of an emergency.
- Do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination.
- Do not sign legal documents or drink alcohol for at least 24 hours.

Your surgeon will tell you when you can return to normal activities. Most people will need about 2 weeks off work.

For the first 4 to 6 weeks do not do activities, such as swimming, that will expose your eye to infection and avoid dusty environments. It is important to look after your eye as you are told, to reduce the risk of complications.

Do not swim, lift anything heavy or bend so your head is below your waist until you have checked with your surgeon.

Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, ask the healthcare team or your GP for advice.

Do not drive a car or ride a bike until you can control your vehicle, including in an emergency, and always check your insurance policy and with the healthcare team.

The future

Most people make a good recovery from the operation, with their glaucoma under better control. You will need to have

regular check-ups to monitor your glaucoma.

Summary

Glaucoma is a common problem, causing damage to the optic nerve where it leaves your eye. It usually affects people over the age of 40. If eye drops do not help enough, glaucoma surgery can be performed to reduce the risk of further damage to the optic nerve.

Surgery is usually safe and effective but complications can happen. You need to know about them to help you make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

[Keep this information document. Use it to help you if you need to talk to the healthcare team.](#)

[Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatments options.](#)

[This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.](#)

Acknowledgements

Reviewer

Pankaj Agarwal (DO, FRCSEd, FRCOphth, FRCS(Glasg))

Illustrator

Medical Illustration Copyright © Nucleus
Medical Art. All rights reserved.
www.nucleusinc.com