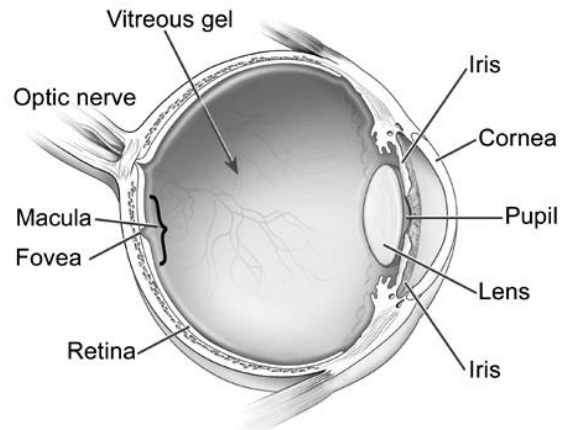


Glaucoma Surgery

Trabeculectomy

What is Glaucoma?

The optic nerve carries images from the retina (light-sensitive layer at the back of the eye) to the brain, allowing you to see (see figure 1). Glaucoma is the name given to a group of conditions that cause damage to the optic nerve where it leaves the eye. It affects 1 in 50 people over the age of 40. Glaucoma can cause loss of vision



Your Ophthalmologist will assess you and let you know 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 make an informed decision.

How does Glaucoma happen?

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

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

Most people do not realise there is a problem in the early stages. This is because it is usually painless, and peripheral (side) vision is usually affected first.

What are the benefits of surgery?

If the operation is successful, it should stop or reduce the risk of further damage to your optic nerve.

Are there any alternatives to surgery?

You can use eye drops to lower the pressure. If they do not work, surgery is usually recommended. Laser treatment may be suitable for you but is less effective than surgery.

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

The optic nerve at the back of your eye 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 stop it getting worse.

What does the operation involve?

Glaucoma surgery involves draining some of the fluid in your eye to lower the pressure. Your surgeon will make a small 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.

The surgeon may apply anti-scarring drugs onto the surface of your eye to improve the chances of the long term success of the operation.

A variety of anaesthetic techniques are possible, including a general anaesthetic or a local anaesthetic that is injected around the eye to numb it. Your anaesthetist or surgeon will discuss the options with you and recommend the best form of anaesthesia for you.

The operation usually takes between 45 mins and 1 hour 15 minutes.

What should I do about my medication?

You should make sure your surgeon knows the medication you are on and follow their advice.

You may need to stop taking Aspirin, Warfarin or Clopidogrel before your operation.

If you are diabetic, it is important that your diabetes is controlled around the time of your operation. Follow your surgeon's advice about when to take your medication.

If you are on Beta-Blockers to control your blood pressure, you should continue to take your medication as normal.

What can I do to help make the operation a success?

- **Keeping in the same position**

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

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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 you should let your surgeon know.

- **Lifestyle changes**

If you smoke, stopping smoking several weeks or more before an operation may reduce your chances of getting complications and will improve your long term health. Try to maintain a healthy weight. You have a higher chance of developing complications if you are overweight.

Regular exercise should help prepare you for the operation, help with your recovery and improve your long-term health. Before you start exercising, ask a member of the healthcare team or your GP for advice.

What complications can happen?

The healthcare team will try to make your operation as safe as possible. However, complications can happen. Some of these can be serious. You should ask your doctor if there is anything that you do not understand. 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.

1. Complications of anaesthesia

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

2. General complications of any operation

a. Pain

Pain after Glaucoma surgery should only be mild and is usually easily treated with simple painkillers such as paracetamol. You may feel pressure or mild discomfort. If you are in severe pain you should let your surgeon know as this is unusual.

b. Bleeding during or after surgery

Any bleeding should be mild and your eye may be slightly red. If it is red and painful you should let your surgeon know, as this is unusual.

c. Infection

Can result in blurred vision or even permanent loss of vision (risk 1 in 300). Most infections usually happen in the first week after the operation but can happen later. If your eye becomes red and painful, and your vision becomes blurred, you should let your surgeon know straight away. You may need other procedures to control the infection.

3. Specific complications of this operation

a. Severe bleeding inside the eye during surgery which may cause permanent loss of vision (risk 1 in 2,000)

b. Bleeding at the front of the eye which makes vision worse (risk 1 in 4). This usually settles after a week.

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- c. Inflammation in the other eye (sympathetic ophthalmia) (risk: less than 1 in a 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.
- d. Too much fluid draining (risk 1 in 5) which usually settles on its own. A tight eye pad or contact lens may be used. If it does not settle you may need a further operation.
- e. Sharp rise in eye pressure causing sickness, pain and headaches (risk 1 in 600). Laser treatment or a further operation may be needed.

4. Late complications of this operation

- a. Developing a cataract (lens becomes cloudy) (risk 1 in 6)
- b. Reduced vision over time (risk 1 in 10) This is caused by glaucoma.
- c. 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 or further treatment to control the pressure.

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 a few hours after the operation. A responsible adult should take you home in a car or taxi and stay with you for at least 24 hours. You should be near a telephone in case of an emergency.

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 after your operation 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 drainage hole, inject anti-scarring drugs into the surface of the eye, and scrape away any scar tissue that may be blocking the hole. These procedures are normally painless and are performed after your eye has been numbed with anaesthetic drops.

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

- **Returning to normal activities**

You should not drive, operate machinery (this includes cooking) or do any potentially dangerous activities for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination. If you had a general anaesthetic or sedation, you should also not sign legal documents or drink alcohol for 24 hours.

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

For the first four to six weeks it is best to avoid activities such as swimming that will expose your eye to infection.

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It is important to look after your eye to reduce the risk of complications. Do not swim, lift heavy objects or bend so your head is below your waist until you have checked with your surgeon. Regular exercise should help you return to normal activities as soon as possible. Before you start exercising, you should ask a member of the healthcare team or your GP for advice. Do not drive until you can read a number plate from 20.5 metres (67 feet) and always check with your surgeon and insurance company first.

- **The future**
Most people make a good recovery from the operation, with their glaucoma under better control.

Summary

- Glaucoma is a common problem, causing damage to the optic nerve where it leaves the eye.
- It usually affects people over the age of 40.
- If eye drops do not help enough, glaucoma surgery can be performed to stop further damage to the optic nerve.
- Surgery is usually safe and effective. However, complications can happen. You need to know about them to help you make an informed choice about surgery. Knowing about them will also help to detect and treat any problems early.

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you.

If you require this information in an alternative language or format (such as Braille, audiotape or large print), please ask the staff who are looking after you.