

(The term 'glaucoma' refers to a characteristic pattern of damage to the optic nerve)

Glaucoma is the name for a group of eye conditions which cause damage to the optic nerve at the back of the eye. If the natural fluid which fills the eye cannot drain away properly, this can result in a build up of pressure within the eye. The high pressure can cause loss of vision and, if very high, pain or discomfort. The high pressure may need to be reduced by surgery. A tube–shunt drainage operation is sometimes offered for difficult to control or complex glaucomas, especially where other sorts of surgery may have failed or are likely to fail.

Tube-shunt surgery

Tube-shunt surgery (Seton glaucoma surgery) involves placing a flexible plastic tube with an attached silicone drainage pouch in the eye to help drain fluid (aqueous humor) from the eye. This type of surgery is usually done after a trabeculectomy has failed. If a person already has or is likely to form scar tissue in the eye, this type of surgery may be done at the start. Tube-shunt surgery is usually done with the person asleep (general anaesthesia). There are many sorts of drainage implants. Some of the names include Molteno, Baerveldt and Ahmed. Broadly speaking, they work in a similar manner. An anti-scarring drug may be used to improve the success of the operation.

Why do I need this surgery?

There are many reasons as to why your ophthalmologist will recommend this operation:

- The eye pressure is not being controlled adequately with your current medication
- The glaucoma is worsening
- Problems with your glaucoma medication or failure of a trabeculectomy

Despite this surgery being used to treat the more difficult and complex glaucomas which carry more risk of problems, the majority of these operations work well. It is important to understand that surgery is designed to work in a staged fashion and may not be working for several weeks afterward. This is preferable to having the operation work immediately which carries the risk of making the pressure in the eye too low. It is not unusual to have adjustment or removal of some stitches post operatively to adjust the pressure in the eye safely. The aim of the operation is to reduce the risk of further damage to the optic nerve. It will not improve sight, but will hopefully help protect vision in the longer term.

What are the risks?

Some risks involved are:

- Bleeding
- Infection
- Inflammation
- For a period of time pressure in the eye may become too high or too low.
- In some cases a cataract may develop. This can be treated by an operation if necessary.
- Serious complications are rare, but occasionally the sight can get worse after the surgery and not recover.

Before the operation

- If you are taking warfarin or aspirin tablets, please discuss the dose with your ophthalmologist.
- Please take all other medication as normal or as instructed. Your ophthalmologist will advise you on which eye drops.
- You will need to fast on the day of the operation.

During the operation

The surgery can take up to ninety minutes and is carried out under general anaesthetic. Please expect to be at the hospital/clinic for up to 4 hours.

What you can expect after your surgery

- You will have an eye shield or pad on your eye which can be removed the next morning. Please tape this shield over the operated eye at night for the next week.
- Your sight may be blurred immediately after the operation. This will usually improve after a week or two but can last up to six weeks.
- Your eye will be watery for a short period of time.
- You may have a gritty sensation in the eye for a week or two.
- Mild pain can be relieved by taking products such as paracetamol.
- Following your operation you should rest and take things easy. You can carry out normal day to day activities.
- Try not to rub your eye, undertake strenuous exercise or heavy gardening, and avoid coughing and sneezing if possible in the first week or two after the operation. Heavy activity increases the risk of complications such as pressure in the eye.

Post-operative care of your eye

- You will be given some eye drops to administer regularly. These will usually start the evening of your surgery once you get home. The frequency will be explained to you by the ophthalmologist or your discharging nurse.
- If you are on more than one drop wait 5 minutes between each eye drop.
- Please continue any regular eye drops as well in the eye you have had operated on until your ophthalmologist tells you otherwise. If you take drops in the other eye please continue as normal.
- You will have regular clinic appointments following the surgery to monitor your eye pressures. The first one is normally the next day.

If you experience severe pain, sudden loss of vision or discharge contact your ophthalmologist or the eye hospital or clinic where your surgery was performed.

Our Mission: To eliminate glaucoma blindness