Trabeculectomy

Why has my doctor recommended this operation?
Glaucoma may get worse if the pressure inside the eye is not low enough. Trabeculectomy is recommended when eyedrops are not controlling the pressure and there is a significant risk that glaucoma is going to cause further damage to your sight.

What is a trabeculectomy?
A trabeculectomy is an operation to make the pressure lower inside the eye. It involves making a new channel in the white wall of the eye (sclera), through which fluid flows out into a space underneath the outer layer of the eye (conjunctiva). A successful trabeculectomy creates what we call a ‘bleb’, i.e., a small elevation which is usually covered by the upper eyelid.

What anaesthetic is used?
Trabeculectomy is usually done as a day case under local anaesthetic. The local anaesthetic is an injection beside the eye, which is given a few minutes before the start of the operation. This makes the eye numb, and usually blurred as well.

What happens during a trabeculectomy operation?
The operation is performed with the patient lying on their back. A paper drape is placed over the face, with fresh air piped beneath it. A clip is used to keep the eye open. You may see light and shadow, but will not see the surgery happening. It usually takes between 40 and 80 minutes to complete the operation, and at the end a patch is taped over the eye, which is left on until the next day.

In many cases, during the surgery, we treat the area of the trabeculectomy with additional medication, to prevent scar tissue from closing the new channel we have created. The medications we use for this include mitomicin-C and 5-fluorouracil (5-FU).

What happens after the operation?
Frequent follow-up is required in the first few weeks after this operation. All patients need to be reviewed the day after surgery then, if all is well, a week later and again one to three weeks after that. The exact timing of these and future reviews depends on how the eye is settling down, and more frequent visits are quite often required.

The first few weeks after the operation are very important for checking the eye and for carrying out adjustments. Most of these adjustments are minor and will be done as part of the outpatient visit. It is best to avoid planning any holiday within two months after the operation.

If you already have a holiday planned, you do need to discuss this with your doctor, and schedule the surgery appropriately.
There will be new drops (an antibiotic and steroid) to use in the eye for several weeks. You won’t need to use your previous glaucoma drops in the eye that has had the operation, although in the longer run some patients do need to restart these to get the pressure low enough. In your other eye, you should continue with any glaucoma drops as before.

What will my vision be like?
It is common for the eye that has had the surgery to be quite blurred for a few weeks, sometimes longer. There is no need to change your glasses straight away, but some patients will benefit from updating their glasses sooner than they normally would, though its best to wait for three months while things settle.

You can resume driving (if this applies to you) if your vision is sufficient for you to meet the legal requirements. Trabeculectomy does not improve vision - its purpose is to prevent sight loss in the future.

What can I and can’t I do after trabeculectomy?
Returning to work
Most people can return to office-based work two weeks after the operation though sometimes longer is needed. It is usually wise to wait at least a month before resuming physically strenuous work or work in a dusty/dirty environment. The doctor will advise you in more detail about this at your postoperative checks.

Activity
You can use your eyes (for reading, television, computers etc) as soon as you wish - this will not harm your eye. Gentle exercise (walking) is fine, but you should expect to avoid strenuous exercise (running, ball sports, fitness workouts), or lifting heavy objects for at least a month after the operation.

Swimming or immersing the eye should be avoided for at least one month - please ask at your check-up if you wish to resume swimming.

It may be useful to keep the clear shield on your eye, or wear glasses for the first week after the operation, for the protection that it offers.

How successful is trabeculectomy?
The operation helps lower the pressure in the eye in about 80% of cases, and most patients will not need glaucoma drops in the eye that has had the operation. A lower pressure is beneficial to nearly all patients with glaucoma, but glaucoma can still progress - in some cases even after a ‘successful’ trabeculectomy.

What are the risks and complications of trabeculectomy?
We always need to consider the risks as well as the potential benefits before going ahead with an operation. Your doctors who have recommended this operation will have judged that the risk to your sight from glaucoma (without the operation) is greater than the risks of the operation itself.

For most patients trabeculectomy achieves a lower pressure without any significant problems; however, all operations do have some risks and for trabeculectomy these include:

Reduced vision
This is very common in the first two weeks, due to swings in the pressure, minor bleeding inside the eye and inflammation. These typically settle within the first few weeks. Some patients (five to eight percent) may have some degree of permanently reduced vision after the operation. Loss of all vision in the eye due to the surgery itself is very unusual, but as with all intraocular surgery can very rarely occur.
Discomfort
This usually settles within a few weeks, but some patients experience long-term discomfort. These symptoms are usually mild and can be controlled with artificial tears.

Increased likelihood of cataract
This is quite common within five years. If it does occur, it can be treated in the normal way. In some patients a trabeculectomy works less well if a cataract operation is performed subsequently.

Infection and loss of vision in the eye
There is a small risk of infection after any eye surgery including trabeculectomy. Additionally, after trabeculectomy there is a permanently-increased risk of infection getting inside the eye. The risk is small: roughly one in a hundred.

Further surgery may be required to make the operation succeed, or to correct low pressure. It is not unusual for an additional procedure of some sort to be required - usually this is a much shorter procedure than the trabeculectomy itself.

Further information
If you have further questions about the information in this factsheet, please ask.

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If you need a translation of this document, an interpreter or a version in large print, Braille or on audio tape, please telephone 023 8120 4688 for help.