

# Trabeculectomy Surgery

## What should I expect after the surgery?

You will be reviewed the next day after surgery. Frequent follow-ups will be required in the first few weeks after surgery. The timing of your follow-ups and future reviews will depend on your recovery.

The first six weeks after your operation are very important as the surgeon may need to adjust the level of your eye pressure. This is normally done in two ways — gentle massage to the “bleb” or removal of some stitches (manually or with simple laser to break the stitch).

The vision in the operated eye may be reduced in the first few weeks or longer. It may take about two to three months for the vision to stabilise, sometimes even longer depending on your ocular condition.

Your eye will feel a bit sore or prickly due to the stitches in the eye. This should improve after a few days to weeks. If your eye is recovering well but worsens suddenly (i.e. more pain and redness or

worse vision), you should inform your ophthalmologist immediately.

You will receive a prescription for eye drops after surgery, typically steroid (for treating inflammation) and antibiotic (for preventing infection) eye drops. It is important that you instill the eye drops as instructed.

After the surgery, you will no longer need to use your previous glaucoma eye drops. However, in the longer run some patients may need to restart these to lower the eye pressure to an appropriate level. In your other eye, you should continue with any glaucoma eye drops as before.

## What are the Do's and Don'ts after trabeculectomy?

Please refer to the *Glaucoma Surgery Post-operative Care and Advice* leaflet.

## Is my glaucoma cured? Will I need any further surgery?

There is no cure for glaucoma. Surgery is done to lower the eye pressure to reduce the risk of further visual loss.

Trabeculectomy can and often does keep the eye pressure low for years. Some operations may start to work less well after a period of time. This depends on many factors such as age of the patient, type and severity of the glaucoma, etc.

In SNEC, our 10-year success rate for trabeculectomy is 80%.

According to our data, about 60% to 70% of SNEC patients are able to maintain good eye pressure three years after surgery. If the surgery fails to keep the eye pressure low enough, your ophthalmologist may prescribe pressure-lowering eye drops to you. In some cases, patients may need to have further surgery if the eye pressure becomes inadequately controlled.

Please consult your surgeon if you have any further queries about the surgery.

## LOCATION MAP



This patient information leaflet is a general guide to help patients understand specific eye conditions, treatment or tests. The information does not replace the need for individual advice from an ophthalmologist. Please consult with your ophthalmologist about your specific eye condition and/or concerns. The contents of this leaflet are not to be produced in any form without the prior permission of the Singapore National Eye Centre.

Information correct at date of print (February 2021)  
Singapore National Eye Centre Company Registration No. 198900840W

**Singapore National Eye Centre**  
11 Third Hospital Avenue, Singapore 168751  
Appointments: (65) 6227 7266 Fax: (65) 6226 1884  
Email: [appointments@sneec.com.sg](mailto:appointments@sneec.com.sg)  
Website: [www.sneec.com.sg](http://www.sneec.com.sg)

/@SNEC.SERI

## TRABECULECTOMY SURGERY

# A CLOSER LOOK: TRABECULECTOMY SURGERY

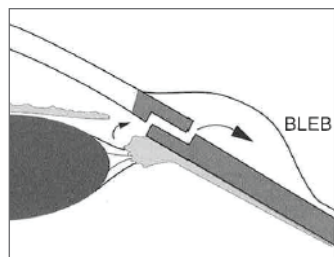


## Why do I need surgery?

Glaucoma is an eye disease that is often associated with elevated eye (intraocular) pressure, in which damage to the optic nerve can lead to loss of vision and even blindness. In order to lower the eye pressure, eye drops and sometimes laser can be used. But when those measures are inadequate to lower the eye pressure, it may be necessary to do an operation, called trabeculectomy.

Aims of surgery:

- To lower eye pressure by channelling fluid from the eye to drain externally
- To reduce dependence on pressure- lowering eye medication



The flow through a "bleb"



Clinical image of a "bleb"

## What is a trabeculectomy?

A trabeculectomy is an eye operation performed to lower the eye pressure. The surgeon will create 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 a “bleb” — a small elevation which is usually covered by the upper eyelid. During the surgery, an anti-scarring agent known as Mitomycin-C (MMC) is used to help prevent scar tissue from closing up the new channel.

This surgery is done as a day procedure, so you can go home on the same day. Before the surgery, the surgeon will give a local anaesthetic injection around the eye to numb the area to provide pain relief during the operation. Light sedation will also be given by the anaesthetist.

It is important to know that this operation is not done to improve the vision. It is performed to help lower the eye pressure, and preserve your vision in the long term.

## What are the risks and complications of trabeculectomy?

### • Infection

As with any surgery, trabeculectomy will carry the risk of infection. Infections are rare and most can be treated with topical antibiotics (eye drops). It is important to inform the ophthalmologist if you experience the onset of eye redness and pain after surgery.

### • Bleeding

This can occur at the front or back of the eye, or at the outer covering of the eye. Bleeding at the front of the eye and outside the eye is usually mild and short-lived. Bleeding at the back of the eye can lead to loss of sight but this is rare. You must inform the surgeon before operation if you are taking any blood-thinning medications.

### • Eye pressure is too low

Although steps are taken to reduce this risk, it may still happen and can lead to reduced vision. The good news is that vast majority of such cases will settle by itself and the vision will return to normal. However, if the eye pressure is too low for a long period of

time, or if it is so low that it causes other problems, the surgeon may need to inject a “jelly-like” substance into the front of the eye in the clinic or take you back to the operating theatre to adjust the "bleb". Usually this is successful and the eye pressure will return to an appropriate level.

### • Eye pressure is too high

Scarring after surgery is the main reason for this to occur, even with the use of anti-scarring agent (MMC). The scar tissue blocks the new channel and prevents the fluid outflow, causing the eye pressure to build up. A procedure called “needling” may be performed to break away the scar tissue to open up the channel and lower the eye pressure. This is performed in the clinic or operating theatre under local anaesthesia.

### • Wound leak

This can happen if there is poor wound healing. Some cases can settle with non-surgical intervention. However, the surgeon may need to take you back to the operating theatre for wound resuturing if the wound leak does not resolve or if it causes other problems.

### • Cataract formation

Trabeculectomy can also result in worsening of your cataract which is why some surgeons may recommend performing a combined cataract and trabeculectomy surgery at the same time. If your surgeon decides not to perform the combined surgery, you can develop cataract later. When it causes significant reduced vision, a day surgery can then be performed to remove the cataract.

### • Sudden loss of vision (wipe-out)

In patients with late-stage glaucoma, there is very little healthy optic nerve left, so any surgery to the eye can result in the loss of the remainder of the optic nerve. However, this complication is very rare.

It is important to note that although surgery does carry risks, not having surgery also carries the risk of progressive blindness if the eye pressure is not well controlled.