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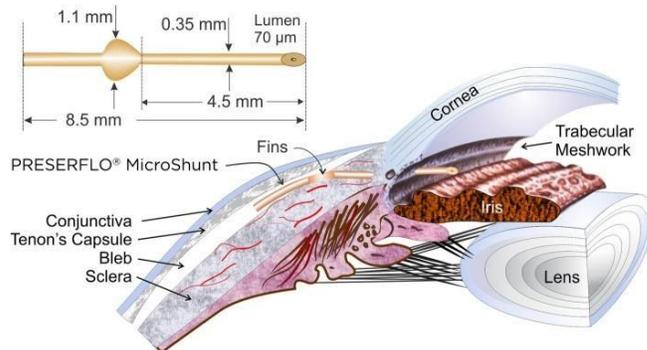
Consultant Glaucoma and Cataract Surgeon

Patient Information Leaflet – Glaucoma Procedures

PRESERFLO™ MicroShunt

What is a PreserFlo Microshunt?

The MicroShunt is an 8 millimetre long tube that is inserted into the eye to help lower eye pressure in glaucoma and reduce the need for medication. It is made entirely of a synthetic and biocompatible material called SIBS.



The MicroShunt will not cause an allergic reaction, won't be rejected by the body and will not disappear or disintegrate with time. As it is not metallic, it will not set off airport scanners and is safe if you need to have an MRI or CT scan.

Why do I need it?

The MicroShunt is suitable for patients with uncontrolled eye pressure and its pressure-lowering effect is generally superior to implants that target the normal drainage channels (iStent, Hydrus or CyPass).

The MicroShunt, in many situations, may be as effective as a trabeculectomy and it is therefore potentially suitable for moderate-to-advanced glaucoma.

The MicroShunt will not cure your glaucoma, reverse any damage already caused by glaucoma, or bring back any lost vision.

How does it work?

Glaucoma is most commonly associated with a build-up of fluid pressure inside the eye. This build-up of fluid pressure is caused by partial blockage of the natural drainage channel of the eye. This pressure can damage the optic nerve which carries images from the eye to the brain affecting your vision. This fluid produced inside your eye is called aqueous humour.

Like trabeculectomy surgery, the PreserFlo MicroShunt drains fluid from inside the eye to outside, under a thin skin-like membrane covering the white of the eye called conjunctiva. The fluid is drained and pooled under conjunctiva forming what is called a bleb.

Your eye surgeon may combine this operation with a cataract operation. Please see the cataract surgery leaflet for further information.

Is the surgery guaranteed to work?

The outcomes for the Preserflo appear to be comparative to a trabeculectomy, which is often regarded as the gold-standard in glaucoma surgery. A three year outcome study has reported a 60% fall in the eye pressure as well as a significant reduction in the number of eye drops a patient needs to take. We currently do not have long-term studies on the device.

Are there alternatives to surgery?

There are three ways to lower the pressure inside the eye on a long-term basis: eye drops, lasers and operations.

You may already be using eye drops, but they did not lower the eye pressure enough, you are getting side-effects, or you find it difficult to use the drops.

Generally, an operation is reserved for patients in whom eye drops and lasers have not worked or are not suitable.

What if I don't want surgery?

Then your eye surgeon will recommend either more eye drops to lower the pressure in your eye, or a laser procedure.

Preparing for the operation

Please continue to use any eye drops and tablets for your glaucoma as prescribed, unless directed otherwise by your ophthalmologist.

If you take any blood thinning medication (e.g. Warfarin) or have had bleeding problems in the past please discuss this with your ophthalmologist prior to surgery.

Prior to the operation you will be asked to attend a pre-operative assessment appointment to check you are fit for the procedure and anaesthetic.

What happens at time of surgery?

The operation is usually performed under a local anaesthetic, meaning that you are awake but your eye is numb so you will not feel anything. Your eye will be numbed with eyedrops and then a small injection will be given around your eye. The injection may cause a pressure sensation and brief discomfort. You will have the option of requesting sedation or a general anaesthetic so you are fully asleep during the operation. The local anaesthetic takes several hours to wear off and may affect your vision during this time

A medication called mitomycin C will be applied to reduce to enhance the long term success of the surgery. The thin skin-like membrane covering the white of your eye (conjunctiva) will be opened and the MicroShunt is inserted inside your eye. The conjunctiva will be closed with one or two stitches. These stitches may either be removed later in clinic or, in some cases, dissolve by themselves. The entire surgery is likely to take no more than 20 – 30 minutes.

What happens after the operation?

You can go home when you feel ready. The operated eye will be covered by a protective plastic shield which you can remove the morning after surgery. Do not worry about instilling any drops in the eye until after the shield has been removed

The morning after your operation you can remove the shield and gently bathe the eye. You can then start the post-operative drops.

You will usually be reviewed in the eye clinic one week after the operation and at one month. We occasionally review on the following day depending on the severity of the glaucoma.

What about my medication?

If you are using drops in the other eye you should continue to do so unless directed otherwise

Please stop your normal glaucoma drops in the operated eye so we can assess the effect of the PreserFlo Microshunt (some drops may need to be restarted according to the pressure response to the implant).

There will be two different drops to go in the operated eye-an antibiotic and a steroid which need to be continued for approximately 3 months post-surgery.

What are the risks and possible complications of surgery?

Serious complications are rare. You could have a small amount of bleeding inside your eye. If this happens, your vision could be blurred for one to two weeks or occasionally longer.

Like all glaucoma surgery, the eye pressure lowering effect of the MicroShunt may wear off with time. This is most often due to scarring around the MicroShunt. If this happens, you will need to restart your glaucoma medications or have further procedures to control your eye pressure, which would usually be an aqueous shunt (Baerveldt, Ahmed or Paul Glaucoma implant).

There is probably a very small life-long risk of infection after MicroShunt surgery due to the creation of a bleb, which in very rare cases may cause blindness. There is also a small risk that the shunt might expose and need to be repaired.

The risk of very low pressure after surgery is much less than after trabeculectomy and persistent very low pressure is rare.

Post-operative Instructions:

No rubbing or pressing on the eye after surgery. As this may happen when you are sleeping we advise you to continue to wear the plastic shield at night for the first week after surgery.

Reading, TV & using the computer are fine.

Do not drive until your surgeon says it is OK to do so.

Most people need 1-2 weeks off work after surgery.

Keep the eye dry for 2 weeks. This is to reduce the chance of infection.

Please ensure to wear goggles if swimming.

It is safe to fly after the surgery, however you will need to be seen a number of times by your surgeon in the first 3 months.