

Ophthalmology

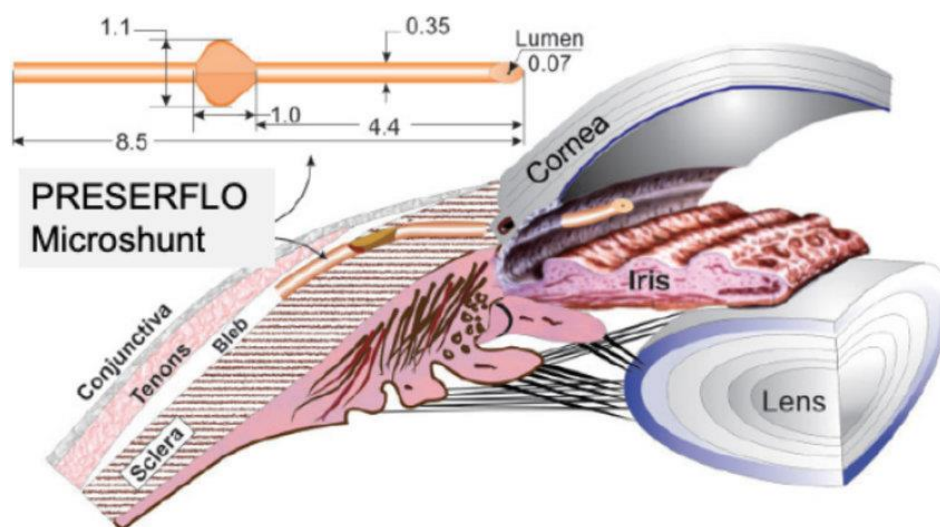
Having a Preserflo Microshunt to treat glaucoma of the eye

What is glaucoma?

Glaucoma is a condition of the eye where increased pressure within the eye causes damage to the nerve that allows you to see (optic nerve). This can then lead to some loss of vision. You may not know that you have glaucoma until you have lost a lot of your sight, as there are usually no known early warning symptoms.

What is a PreserFlo Microshunt?

The Preserflo 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 of a synthetic and biocompatible material called SIBS (styrene-block-isobutylene-block-styrene).



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The Preserflo will not cause an allergic reaction, it 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?

Unfortunately drops or glaucoma surgery cannot restore vision that has already been lost. The Preserflo Microshunt is aiming to reduce the pressure inside the eye and therefore prevent or slow down further damage to the optic nerve. It will not cure your glaucoma, reverse any damage already caused by glaucoma, or bring back any lost vision.

How does it work?

Glaucoma can cause a build-up of fluid pressure inside the eye. This build-up of fluid pressure is caused by a 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. The fluid produced inside your eye is called aqueous humour.

Similar to Trabeculectomy surgery (the traditional Glaucoma 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 the conjunctiva forming a 'bleb.' This bleb will stay as long as the fluid is draining.

Your eye surgeon may combine this operation with a cataract operation. Please see the cataract surgery leaflet for further information. Cataract surgery leaflet can be requested from our team.

Is the surgery guaranteed to work?

A three-year outcome study has reported a 60% success in significantly reducing the eye pressure as well as a significant reduction in the number of eye drops a patient needs. We currently do not have long-term studies on the device.

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Are there alternatives to surgery?

Generally speaking, there are 3 ways to lower the pressure inside the eye on a long-term basis: eye drops, lasers and surgery.

You may already be using eye drops, but they did not lower the eye pressure enough, you are experiencing side effects, or you find it difficult to use the drops. The surgery is used when eye drops and lasers have not been effective or are not suitable.

The traditional surgery is called trabeculectomy. During this procedure, the surgeon creates a small cut through the white part of the eye (sclera) to allow the fluid to drain into a blister or 'bleb'. The fluid is then reabsorbed back into your bloodstream.

The Preserflo technique being offered to you is a newer technique. We're offering it to you because it's less invasive than the traditional Trabeculectomy surgery and involves shorter recovery time. It also has similar success rate in selected cases after 3 years.

The success rate of reducing eye pressure by 50% with Preserflo ranges between 80% to 90% after 3 years. However, we don't have long term studies to confirm the success rate after this time point.

What if I don't want surgery?

You may be suitable for a laser procedure, or you may need more eye drops. However, this may not control your Glaucoma and your vision may continue to get worse.

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 such as Warfarin or have a history of bleeding problems, please discuss this with your ophthalmologist before surgery.
- Before your operation, you will be asked to attend a pre-operative

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assessment appointment to make sure you are fit for the procedure and anaesthetic.

What happens at the 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 eye drops and then a small injection will be given around your eye. The injection may cause a pressure sensation and brief discomfort. The local anaesthetic takes several hours to wear off and may affect your vision during this time.

You can ask for a sedative drug or a general anaesthetic so that you are fully asleep during the operation.

An anti-scarring medication called mitomycin C will be applied to improve the long-term success of the surgery. The thin skin-like membrane covering the white part of your eye (conjunctiva) will be opened and the MicroShunt will be inserted inside your eye. The conjunctiva will then be closed with 1 or 2 stitches. These stitches may either be removed later in clinic or, in some cases, dissolve by themselves. The surgery is expected to take no more than 35 to 45 minutes.

What happens after the operation?

You can go home when you feel ready. Your eye will be covered by a protective plastic shield, which you can take off the morning after surgery. You won't need to put any eye drops until after the shield has been taken off.

The morning after your operation, you can take the shield off and gently clean the eye with the solution provided by the nurse. Then, you can start using the post-operative eye drops.

We will usually see you in the eye clinic 1 day and 1 week after your operation and then again a month later. We may also need to see you on frequent basis during the next 3 months after the surgery.

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What about my medication?

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

Please stop your normal glaucoma drops in the operated eye so we can assess the effect of the PreserFlo Microshunt. Depending on the pressure in your eye after the operation, you may be advised to restart the drops later.

You will need to use 2 different drops in your operated eye to help it recover from the surgery. These are an antibiotic and a steroid. You will need to use these for about 3 months after your surgery.

What are the risks and possible complications of surgery?

Serious complications are uncommon. You could have a small amount of bleeding inside your eye. If this happens, your vision could be blurred for few weeks.

The effect of the MicroShunt may wear off with time. This is most often due to scarring around the MicroShunt. We do not have enough data to suggest the likelihood of this with Preserflo but we know that it can happen in up to 40% of cases after 5 years with Trabeculectomy surgery.

We can usually try to remove the scarring around the Preserflow by doing a procedure called Needling. However, success is not guaranteed, especially if you have dense scarring. 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.

There is a very rare 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 move from its location or become exposed and need to be fixed by doing another surgery.

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There is a low risk of low pressure after Preserflow surgery, which is less than that after Trabeculectomy (about 15% of cases) and if that happens, you may need another surgery to fix this.

How should I look after my eye after surgery?

- You must not rub or press on the eye after surgery. To help stop this happening while you are asleep, you should wear the plastic shield at night during the first week after surgery.
- You can read, watch TV & use a computer as normal.
- 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 wear goggles if swimming after complete healing of your surgery (which usually takes about 3 months).
- 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.

Who do I contact if I have questions or concerns?

In case of emergency:

Within normal working hours – Phone 024 7696 4800 and ask to speak to the eye casualty team.

Outside normal working hours – Go to the main Emergency Department (A&E).

For general queries:

Please call: Glaucoma secretaries – 024 7696 6502.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact us on 024 7696 6502 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

Patient Information

Did we get it right?

We would like you to tell us what you think about our services. This helps us make further improvements and recognise members of staff who provide a good service.



Have your say. Scan the QR code or visit:
www.uhcw.nhs.uk/feedback

Document History	
Department:	Ophthalmology
Contact:	26502
Updated:	April 2024
Review:	April 2026
Version:	2
Reference:	HIC/LFT/2581/21

Emergency Eye Appointments: New Booking System

If you have an urgent eye problem, you can now book an on-the-day telephone consultation via the Eye Emergency Referral Service (EERS).



Scan the QR code or visit www.uhcw.nhs.uk and search Eye Emergency Referral Service the section How to Access our Services will take you to a link to book a telephone consultation.

You will be spoken to by an expert clinician who will give you specialist advice on the next steps to take.

Please provide a phone number which you can be contacted on for the consultation. Please also be aware that you will be phoned as close to the allotted time as possible, although at busy times unfortunately there may be a delay.

In the event that you feel you cannot wait to speak to someone or do not have online access then you may call 0247 696 4800.

This phone line is open 9am - 1pm; 1.30pm - 5pm (Monday - Friday, excluding bank holidays) and 9am - 12pm (Saturday).

In the event of an eye emergency out of hours, please attend the Minor Injuries Unit/Emergency Department.

Please only attend the Eye Outpatient department if you have had a telephone consultation in advance and have been advised to attend.