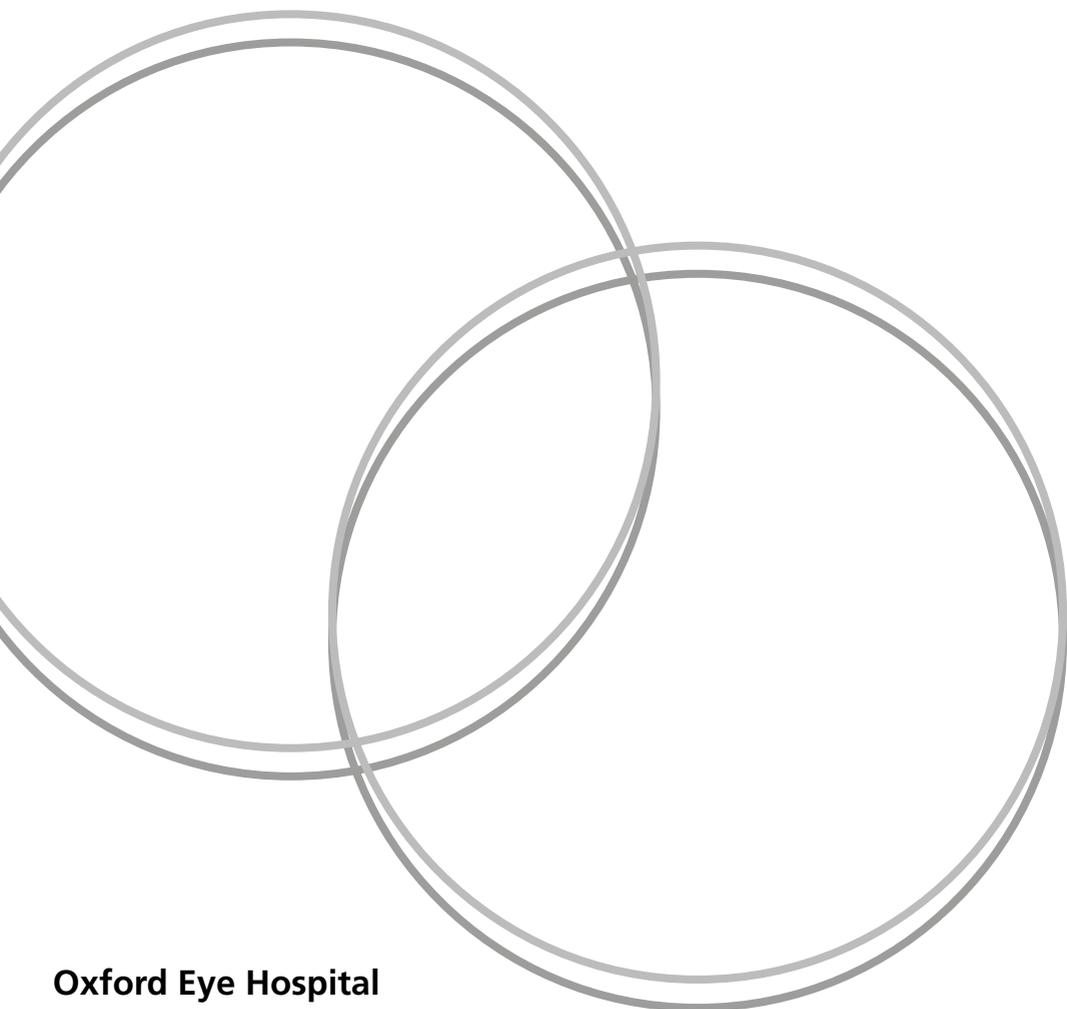




Oxford University Hospitals  
NHS Foundation Trust

# Glaucoma filtration surgery (XEN® Implant)

Information for patients



Oxford Eye Hospital

This leaflet gives you information that will help you decide whether to have glaucoma surgery using the XEN® implant. Before you have the operation, you will be asked to sign a consent form. Therefore it is important that you understand the information in this leaflet before you decide to have surgery. You might want to discuss it with a relative or carer. If you have any questions, you may wish to write them down so that you can ask one of the hospital staff.

## **Glaucoma Treatment**

Glaucoma is usually treated successfully with medication to lower the pressure in the eye. If medication is not effective, laser and other surgical procedures may help in controlling the pressure and preventing further loss of vision.

## **Glaucoma surgery**

Your doctor has informed you that a microsurgical drainage operation called a XEN® implant is a good option to help control the pressure in your eye. This procedure allows your eye surgeon to create a new drainage channel for the eye, which results in a filtering area called a 'bleb'. The bleb is mostly hidden under the eyelid. When successful, this procedure will lower the pressure in your eye, minimizing the risk of further loss of vision from glaucoma. Unlike traditional glaucoma surgery, scissors and stitches are not required.

## **What is the XEN® Implant?**

The XEN® Gel Implant is a small gelatin tube that creates a new pathway for fluid to drain from the eye. This reduces the eye pressure. It is usually performed at the same time as cataract surgery. The Implant is 6 mm long and nearly as thin as a strand of human hair. The XEN implant is made of gelatin that has come from pigs (porcine gelatin). If this causes you concerns, please discuss with your surgeon.

A senior specialist eye surgeon with expertise in Glaucoma will carry out the operation or may supervise a doctor in training. This operation is usually carried out under local anaesthetic – you will be awake during the operation. You will not be able to see what is happening, but you will be aware of a bright light. Just before the operation, you will be given an anaesthetic to numb the eye. This may consist of injecting local anaesthetic around the eye or eye drops. Intravenous sedation is sometimes used to help relax you. Certain patients may have a general anaesthetic – in this case you will be unconscious and not be aware of what is happening during the operation.

During the operation, if you are awake, you will be asked to keep your head still, and lie as flat as possible. The operation normally takes approximately 10-15 minutes. This will be longer if cataract or lens implant surgery is done at the same time. A member of the nursing staff is usually available to hold your hand during the operation, should you want them to. The XEN® Implant is injected through an incision (cut) in the clear part of the eye (cornea) using a special injector. This incision will close by itself after the operation; there is no need for stitches. A medication called mitomycin C will be applied to the area before the implant to reduce scarring and to enhance the long term success of the operation. At the end of the operation, a pad or shield will be put over your eye to protect it.

## **Benefits of XEN® implant surgery**

The main benefit of the surgery is to lower pressure inside your eye to maintain your vision. The surgery will not improve the vision you have already lost due to glaucoma.

## **Risks of XEN® Implant surgery**

There is a small risk of complications, either during or after the operation. In most cases the complications can be treated and in a small proportion of cases, further surgery may be needed. Very rarely some complications can result in loss of sight.

- **Vision**

Sight may take several days and sometimes weeks to return to normal. Some patients will find their vision is not quite as sharp after surgery. The benefit of this operation is slowing (or stopping) the rate of deterioration of glaucoma. However, the operation cannot be totally guaranteed to stop the loss of vision in your eye. Eye surgery for any condition carries a 1 in a 1000 risk that your vision may be worse or your eye may become blind after the operation.

- **Eye pressure control**

There is a risk that the operation will fail to lower eye pressure enough. This might mean you will need another operation or need eye drops to lower the pressure. If the eye pressure becomes too low after surgery you may need further surgery.

- **Scarring**

A significant proportion of patients may develop scarring around the implant (up to four out of every ten patients or 40%), despite use of anti-scarring medication used at the time of surgery. This can be managed by treatments in clinic or further surgery.

- **Bleeding**

There is a 1 in 1000 chance of bleeding inside the eye immediately after surgery (called "suprachoroidal" haemorrhage). This may require further treatment, and may ultimately result in loss of sight.

- **Infection**

There is a 1 in 1000 chance of infection inside the eye after surgery. This may require further treatment, and may ultimately result in loss of sight. This operation will make your eye more likely to get an infection, even in years to come. If your eye becomes painful or red, or the vision becomes blurred, you should seek immediate attention from the eye hospital.

- **Cataract**

There is an increased risk that a cataract (cloudy lens) may develop after this surgery. Therefore, we only offer this surgery in combination with cataract surgery or after someone has had cataract surgery.

- **Irritation**

After the operation, you are likely to experience irritation, grittiness or mild discomfort. This will usually settle down over 3 to 4 weeks. Sometimes the irritation/discomfort may persist for longer.

- **Droopy eyelid**

Your eyelid on the side of the operation may become droopy. This will usually return to normal, but if it doesn't, and it affects your vision, you may need a small operation to lift the eyelid.

- **Implant problems**

Rarely, the implant may become dislodged, break, or the skin of the eye covering the implant may break down resulting in the implant becoming exposed. If the implant does become exposed, you are at risk of infection which could result in a loss of vision. You will need further surgery to correct the exposure if this happens.

## After the operation

If your eye becomes uncomfortable or painful, we suggest that you take some pain relief such as paracetamol every 4-6 hours (avoid drugs such as aspirin or ibuprofen – as they can cause bleeding). It is normal to feel itching, sticky eyelids and mild discomfort for a while after XEN® implant surgery. You will be given eye drops to reduce inflammation (swelling) and protect against infection. The hospital staff will explain how and when to use them. Please don't rub your eye. The eye team will see you regularly for a number of weeks after the operation.

Some symptoms could mean that you need treatment quickly, including:

- **Excessive pain**
- **Loss of vision**
- **Increasing redness of the eye**

If you experience any of these symptoms, contact the eye hospital.

## How to contact the Eye Hospital

Please contact us if you have any questions or concern either before or after your operation.

Tel: **01865 234 567** – select option 1 for patients and then option 2 for Eye Surgery.

***Please note this line directs you to an answer phone service which is checked and responded to by a Nurse Practitioner three times a day, 7 days a week; at 8am, 12pm and 4pm. If you call after 4pm your call will be responded to the following day.***

Email for appointment enquiries: [eye.hospital@ouh.nhs.uk](mailto:eye.hospital@ouh.nhs.uk)

**Call our specialist telephone triage number if you need URGENT help or advice or if you notice:**

- **Redness and / or swelling of your eye lids and / or eye ball**
- **Any loss of sight**
- **Intense pain**

Tel: **01865 234567** option 1 followed by **option 1**

Monday to Friday 8.30am - 4.30pm

Saturday and Sunday 8.30am - 3.30pm (including Bank Holidays)

You will be able to speak to an ophthalmic health professional who will advise you.

If you need advice **out of hours**, please phone **NHS 111** or your out of hours GP practice.

## **For more information**

For more information and further resources please visit the 'International Glaucoma Association' website.

<https://www.glaucoma-association.com/>

## **Oxford Eye Hospital – Glaucoma Service**

Surgery is performed by the specialist glaucoma team in the department which includes:

### **Lead Consultants:**

\*Mr Gurjeet Jutley

\*Mr Rajen Tailor

### **Glaucoma Fellow**

### **Specialist Trainees**

### **References:**

Ab interno approach to the subconjunctival space using a collagen glaucoma stent. Lewis RA. J Cataract Refract Surg. 2014 Aug;40(8):1301-6. doi: 10.1016/j.jcrs.2014.01.032. Epub 2014 Jun 15. Review.

Minimally invasive glaucoma surgery as primary stand-alone surgery for glaucoma. Kerr NM, Wang J, Barton K. Clin Exp Ophthalmol. 2017 May;45(4):393-400. doi: 10.1111/ceo.12888. Epub 2017 Jan 29. Review.

## Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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