

## Patient Information

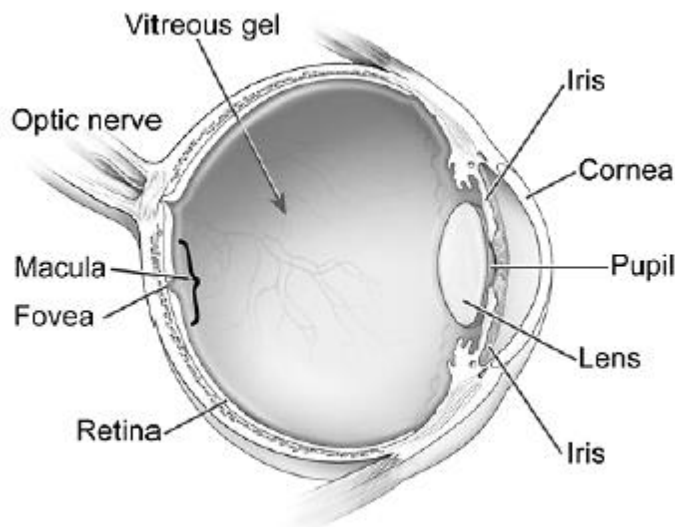
# Vitrectomy surgery

## Introduction

The information in this leaflet is a guide for patients and carers about vitrectomy surgery.

## What is vitrectomy?

Vitrectomy is an operation to remove the clear gel (jelly), the vitreous humour, from inside the eye. The vitreous is found behind the lens and coloured iris; it lines the retina, but can shift over time.



## Why do people need to have a vitrectomy?

- Retinal detachment**  
 A detached retina will usually cause progressive visual loss without treatment. The majority of cases need to be repaired on an urgent basis.
- Macular hole or epiretinal membrane**  
 The macula is the central area of retina used for fine vision such as reading text. A hole or membrane usually causes distortion of vision or blurred central vision.

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Department

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## Patient Information

- **Vitreous haemorrhage** (bleeding)  
Blood within the gel may cause visual dark swirls or misted vision. This can happen in conditions such as diabetes which can cause growth of unhealthy fragile new blood vessels.
- **Eye trauma**  
Injuries that open the eye ball or pieces of metal entering the eye during accidents may require vitrectomy surgery to repair the damage.
- **Diagnostic**  
To take a sample of the vitreous to examine it for infections or cancers, allows the correct treatment to be given.

## How is the surgery performed?

Surgery is usually performed under local anaesthetic with the patient awake, but made very comfortable. Patients with severe anxiety may be offered sedation (to make them relaxed and drowsy) or occasionally a general anaesthetic (completely unconscious), although this may be limited by pre-existing medical conditions. Your surgeon will discuss this with you before the operation and choose the most suitable option for you.

The patient lies flat on a surgical couch, with a clear plastic drape over the face to keep the surgical area sterile, which is lifted up to form a small 'tent'. There is an air pipe to allow comfortable breathing and prevent claustrophobia. Patients will not be able to see anything unnerving. Most patients will have no vision in the anaesthetised eye.

During the operation, the eye remains in its natural position, and fine instruments are inserted through key-hole wounds to gently remove the vitreous gel. This allows further treatments to the retina as required, and is often combined with cataract surgery if necessary. The procedure usually takes around 1 hour, but may take up to 2 hours, depending on complexity. In most cases the key-hole wounds are self-sealing, but occasionally a tiny dissolvable stitch is used to close them.

## Patient Information

### Is the vitreous gel replaced?

The vitreous gel is not needed in an adult eye, and in most cases the eye will fill up with natural fluid (aqueous humour) over time.

In most procedures, the retina requires some support to help it heal properly. A temporary bubble is used to support the retina from the inside.

- **Air bubble.** This will cause the vision to be very blurred but will clear in 7 to 10 days.
- **Gas bubble.** Vision is very blurred with a gas bubble in the eye. Different medical gases may be absorbed over 2, 4 or 8 weeks, depending on the level of support required for the retina. Patients are given a bright wrist-band for the duration of this to remind them not to travel in an airplane or have a gas anaesthetic during this time.
- **Silicone oil bubble.** This provides longer-term support to the retina, and is not absorbed naturally. The vision is blurred by the bubble, but less so compared to air or gas. The majority of patients will have a second operation at a later stage to remove the oil.

### Positioning after the operation

Most bubbles used in the eye will float upwards due to gravity. If the area affected is away from the top of the eye, patients may be asked to position their head to allow the bubble to best support the affected area of the retina. Typically, this will be for a few days after the surgery, and should be performed for 50 minutes in each hour to allow for comfort breaks. Positioning may vary between night and day-time to allow comfortable sleeping.

**Patient  
Information**

## What happens after the surgery?

- Usually the vision will be temporarily blurred depending on the bubble used within the eye. Permanent vision can be assessed when the bubble has been absorbed or removed. We recommend holding off opticians' checks until 6 weeks after the surgery, or when the bubble has gone (whichever is latest).
- The eye might appear red and feel gritty or sore for 1 to 2 weeks. Pain relief and regular eye drops will help, these will be prescribed by your surgeon after the operation.
- Normal follow-up is in clinic around 1 week after surgery, but this may vary.

## Possible complications

**Cataract development** may be hastened in the months following vitrectomy surgery. Some patients will have cataract surgery performed at the same time, but this is not suitable in every case. Cataract surgery is a smaller procedure that can be performed as a day-case if it does develop after vitrectomy.

**Retinal detachment** is an uncommon complication after vitrectomy surgery (less than 2 in every 100 patients). For vitrectomy performed to treat retinal detachment, the success rate is above 80%.

**Severe visual loss** is very rare (1 in every 1000 patients) and may be related to severe bleeding or infection within the eye (endophthalmitis).

## Contact us promptly if you notice

- Severe pain
- Suddenly reduced vision (gas bubbles will cause blurring, but vision will remain bright)
- An increasingly red eye
- Feeling of nausea or actual vomiting.

**Patient  
Information**

## **Contact information**

If you any issues after surgery, please contact:

### **Eye triage**

Tel: 0300 422 3578

Monday to Friday, 8:00am to 6:00pm

Saturday, 8:00am to 1:00pm

Outside of these hours, calls will be directed to the hospital switchboard. Please ask to speak to the on call eye doctor.

If you have any queries about your treatment which are not covered in this leaflet, please ask any member of the medical or nursing staff for advice.

## **Further information**

Additional information about retinal surgery in the UK can be found at the following website:

### **British & Eire Association of Vitreoretinal Surgeons**

Website: [www.beavrs.org](http://www.beavrs.org)

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