Retinal Detachment

The retina is the lining of the back of the eye, which allows the eye to see. If a hole appears in the retina it will detach rather like wallpaper peeling off a wall. The retina cannot work when it is detached. The only way to repair the retina is by operation to find the hole or holes in the retina and sealing them.

The retina can be repaired in two ways:

1. Sometimes the hole can be sealed by sewing a small piece of plastic onto the outside of the eye, creating a dent in the eye ball, which will close the hole (see drawing). You may be able to feel the plastic on the eye after the operation.

2. Alternatively it is possible to go inside the eye and by removing the jelly in the eye (the vitreous) a gas bubble can be inserted to support the retina. This operation is called a vitrectomy. The eye does not need the vitreous jelly. It will fill the space with a watery fluid.

The vitrectomy is performed by making three small incisions in the eye that are often stitched at the end of the operation. The operation takes approximately one hour to perform. The gas bubble will float inside the eye and close the hole. Laser or freezing treatment is used to seal the hole. The surgeon will decide which surgery is most appropriate.

Use of a Gas Bubble

Some patients need a gas bubble to support the retina, which remains in the eye until it dissolves. At first the gas will obscure the vision but over a few weeks a black line will gradually travel downwards in the vision. This is the edge of the bubble as it gets smaller. Eventually the bubble breaks up into smaller bubbles and will disappear.

You must not travel by aeroplane whilst you have a gas bubble in the eye.

If gas is used you may need to position your head to improve the chances of success.
Head Positioning

The gas bubble floats in the eye pushing on the retina. To work properly you may need to keep your head:

- Face down
- Face up
- Right cheek down
- Left cheek down

This will be explained to you. Do this as much as you can for the first week. It can make a difference to the success or failure of the operation.

Silicone Oil

Sometimes silicone oil is inserted into the eye instead of gas. Often another operation is required to remove this oil. Silicone oil can cause glaucoma or cataract.

Success Rates

The chance of success depends upon the severity of the detachment. Overall the success rate of the first operation is 90%. This means that some people will require more than one operation. The chance of success is reduced if the retina has produced scar tissue. Most patients will obtain good vision but some will lose vision even if the retina is reattached.

The Other Eye

If you have a retinal detachment in one eye there is an increased risk of detachment in the other. The other eye will be examined during the operation and may be treated with freezing treatment to seal any weak or torn retina. This may cause the eye to feel gritty post-operatively.

Complications

Cataract is common after vitrectomy often requiring small incision cataract surgery later on. The following complications can occur but are uncommon: Infection, bleeding, glaucoma, inflammation, retinal detachment, wound problems, drooping eyelid, double vision, distortion, blurred vision.

Recovery Period

It can take 2-6 months for the eye to recover from the surgery.

Anaesthetic

You will be offered:

- General anaesthetic (GA)
- Local anaesthetic (LA)
You will be asleep for a GA and will therefore usually have to stay in the hospital overnight. Having a LA involves injections around the eye to anaesthetise the area. This is similar to having dental work where the dentist uses an injection to “freeze” the tooth; in this case the surgeon uses an injection to “freeze” the eye. You will be awake during the operation but will not be able to see what the surgeon is doing. The advantage of LA is that you do not need to stay overnight in the hospital. Sedation may be given to relax you during the LA. Complications from LA are rare. They include haemorrhage and injury to the eye from the needle. Some operations are considered too long for a local anaesthetic and therefore GA will be performed.

**Postoperative Care**

You will be seen the day after the operation to check there are no immediate complications from the surgery. You will probably need to change your glasses after the operation but it is best to wait a few months for the eye to settle.

**Eye Drops**

It is necessary to use eye drops for approximately one month, usually an antibiotic and anti-inflammatory, four times a day and a drop to dilate the pupil twice daily. These will help the eye recover.

**Remember**

- Recovery of the vision is usually slow after retinal surgery
- It may be two months or more after the operation before it is possible to judge the visual result
- Some patients may need more than one operation