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UNDERSTANDING RETINAL DETACHMENT

The Retina

The retina is a light sensitive tissue layer at the back of the eye. It transmits messages to the brain, which are interpreted as sight. It is made up of a number of layers.

Retinal detachment develops in approximately 1 in 10,000 people per year.

What is a retinal detachment?

The retina lines the inside of the eye like wallpaper. When a detachment develops, a separation occurs between the first layer and the rest of the retina.

The part of the retina that has separated will not work properly. Hence the picture that the brain receives becomes patchy or may be lost completely.

Symptoms of Retinal Detachment

The eye is full of a jelly like substance (vitreous). With age this can liquefy and pull away from the retina causing irritating but harmless floaters.

However, flashing lights and a **shower of floaters** may mark the onset of a retinal detachment. Flashing lights can occur as the layers separate. Floaters are often described as being black spots or threads, which appear to move within the eye.

A shadow or curtain of missing vision may also be experienced.

- You may return to work and driving as instructed by your Ophthalmologist.
- You should not travel by air if gas or silicone is still present, as it will expand. Your Ophthalmologist will be able to advise you.

How much vision can be expected after surgery?

Retinal surgery is very complex. Positive outcomes depend on a number of issues: such as how much retina has detached, for how long, if the macula has detached or not and patient's compliance with posturing to name but a few.

The aim of managing retinal detachment is to recover or preserve as much vision as possible.

Some people do not have good vision following surgery due to associated bleeding or because the macula has been detached prior to surgery.

In the majority of cases the retina can be repositioned with one operation but further surgery is not uncommon.

Recovery of sight is a **gradual** process over 6 months with successful surgery.

What to expect

It is not unusual to feel quite tired for a couple of weeks after the general anaesthetic or for the eye to feel a little uncomfortable for a few days.

Following surgery the eye will have a large eye pad on until the next morning. Once removed the eye may appear red and swollen. This will gradually resolve. Vision will be blurred. Postoperative drops will be prescribed and the eye will be cleaned regularly.

Often you may experience the sensation of a bubble in your eye. This is as a result of the air or gas inserted and will disappear as it absorbs (usually 2-5 weeks depending on the substance used). Silicone remains in the eye unless a decision is made to remove it.

Drops will be prescribed for a number of weeks until the eye is quiet and has settled down. The drops commonly used include an antibiotic, an anti-inflammatory and a dilating drop. The dilating drop will result in blurred vision –as it keeps the pupil dilated allowing the eye to rest.

Discharge normally occurs 3-7 days after surgery sometimes longer depending on progress. Initially contact sports such as boxing and rugby should be abandoned, as should driving.

What causes a Retinal detachment?

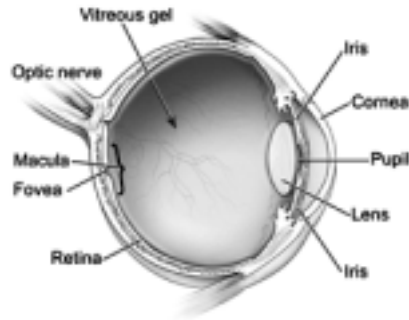
The first layer of the retina can be pushed, pulled or floated off the underlying layers.

- It may be pushed off for example, as a result of an internal haemorrhage in the eye.
- Pulled off, as a result of eye disease associated with certain conditions such as diabetes.

Or:

- It may float off as a result of a tear or hole in the retina. This can arise for example as a result of trauma to the eye or in the case of retinal degeneration or shortsightedness.

Diagram



The diagram illustrates that the retina is situated at the back of the eye. This results in the need to have the pupil dilated in order for the doctor to view the retina. The macula is a very important part of the retina. It is responsible for clear central vision, which is necessary for reading. If the macula has detached it can have serious implications with regard to prognosis.

Management:

If a retinal hole/ tear is detected before any detachment occurs it may only be necessary to have laser or freezing treatment to prevent the retina from detaching.

This is normally done under local anaesthetic.

If the retina has detached it may require one of the following operations as well as laser or freezing treatment:

Scleral Buckle

Pressure can be applied around the outside of the white of the eye. Fine bands made of silicone, plastic or sponge are stitched around the outside of the eye so that they push in against the retina in an effort to apply pressure and reunite the layers.

These are left in place and usually do not cause any problems.

Vitrectomy

The retina can also be reattached from the inside of the eye. This operation involves removing some of the vitreous and replacing it with a clear substance (air, gas or silicone). These substances cover the retinal break preventing vitreous fluid seeping through, thereby encouraging reattachment. This closes off the break in the retina from the inside.

Posturing

To ensure that the air, gas or oil continues to cover the retinal break posturing is often necessary after the operation. This involves positioning your head in a certain way depending on where the detachment is situated. For example left cheek to pillow. The surgery is the first step in reattaching the retina. Posturing is the second step. It is necessary for the first 10-14 days to allow the layers of the retina to knit together.

Posturing must be carried out 24 hours a day in order to ensure the best possible outcome. A 10 minute break per hour is allowed. Whilst tedious, the importance of posturing cannot be overemphasised.