

RETINAL DETACHMENT

What is a retinal detachment?

The retina is the thin light-sensitive layer lining the back of the eye. Light entering the eye passes through the cornea and lens, and is then focused onto the retina. The retina transforms this light image and sends visual messages to the brain to be interpreted.

In order to function properly, the retina must be nourished by the layer behind it (the choroid). In a retinal detachment, the retina peels away from the choroid, thus losing its supply of blood and therefore its ability to function.

If not treated promptly, retinal detachment may lead to permanent and sometimes complete loss of vision.

Who is at risk of a retinal detachment?

Retinal detachments can occur in anyone, therefore someone without risk factors. They do however occur more frequently in people with the following conditions:

- Near/short-sightedness (myopia)
- Previous eye surgery (like cataract surgery)
- Previous eye injury
- Previous retinal detachment in the other eye
- Family history of retinal detachment
- Pre-existing retinal conditions that leave “weak spots” in the retina

What are the symptoms of a retinal detachment?

- **Floating spots** in the vision, momentary **flashes of light**, and **loss of peripheral and eventually central vision** may indicate the development of a retinal detachment. Sometimes retinal detachments can occur without floaters or light flashes.
- Patients may notice a **wavy or watery quality of part of their vision**, or the **appearance of a dark shadow in some part of their vision**. Further development of the detachment will blur central vision too and cause significant visual loss in the eye.
- Some retinal detachments happen very suddenly and the patient can experience **total visual loss**.

How is a retinal detachment treated?

Prompt treatment is essential. Successful re-attachment of the retina consists of sealing the tear and preventing the retina from pulling off the back of the eye again. Different procedures are used depending on the characteristics of the retinal tear(s)/hole(s) and the amount of fluid under the retina.

- **Laser photocoagulation**
Used when small retinal tears/holes occur with little or no nearby retinal detachment. These laser burns seal the edges of the tear.
- **Cryotherapy (freezing)**
This is done through the sclera (white of the eye) at the site of the retinal tear/hole, and works in a similar way to laser treatment (but is used less often).

- **Surgery**

Your eye surgeon will be able to evaluate the characteristics and cause of the retinal detachment, and advise which of these surgical procedures would be the most appropriate.

- **Pneumatic retinopexy**

A gas bubble is injected into the back of the eye. This bubble then covers the retinal tear/hole, and prevents more fluid from collecting under the retina. It also helps to push the fluid that is already present under the retina out, thereby allowing it to reattach. The retinal tear/hole is then sealed with laser or cryotherapy to ensure permanent closure.

- **Vitrectomy**

Very small surgical incisions are made into the outer coating of the eye (sclera), and the vitreous gel, which is pulling on the retina, is removed. The fluid under the retina is drained, and the retinal tear/hole is sealed with laser. Thereafter saline, an air or gas bubble, or silicone oil can be used to replace the vitreous gel and help hold the retina in position. The air or gas bubble is slowly reabsorbed over a period of 2 to 4 weeks, and the vitreous cavity refills with the fluid that fills the front of the eye. The ophthalmologist may ask you to lie or sit in a certain position after the operation; this is to allow the gas to cover and seal the retinal hole/tear.

It is important not to fly in an aeroplane or travel to a higher altitude until the bubble of gas has gone, as it can cause the eye pressure to be dangerously high.

- **Scleral buckling**

In select cases, the retina can be reattached from the outside by using a buckle or band. A flexible band is placed around the eye, and/or a small silicone/sponge buckle is stitched onto the outside of the eye (the sclera) to cover and seal the retinal tear/hole. With this procedure the ophthalmologist may also drain some fluid from under the detached retina, allowing the retina to settle back into its normal position.

Both vitrectomy and scleral buckling are combined with laser treatment or cryotherapy (freezing).

These procedures are done in the operating theatre, and usually under general anaesthesia.

After the surgery you will be able to go home on the same day, so you will need to arrange for someone to drive you home.

After the surgery, you will be prescribed pain medication and eye drops to use for a few weeks.

You may have a gas or air bubble in your eye, in which case you will be informed to keep your head in a specific position for a certain period of time.

During the initial post-operative period; you may not fly in an aeroplane or travel to a higher altitude (if you have a gas bubble), and you should avoid eye rubbing, lifting heavy objects and strenuous activity.

Your recovery should take approximately 4 to 8 weeks (possibly shorter).