

RETINAL DETACHMENT SURGERY PATIENT INFORMATION

WHAT IS A RETINAL DETACHMENT?

A retinal detachment typically occurs because of a tear in the retina, which allows fluid to migrate through and enter under the retina, causing the retina to separate from the eye wall. This can result in a loss of part of the field of vision or total loss of vision, depending on the degree of retinal detachment.

WHAT ARE THE TREATMENT OPTIONS FOR RETINAL DETACHMENT REPAIR?

The severity of the retinal detachment, the location and number of retinal tears associated with the detachment, and the presence of scar tissue, all factor into how a retinal detachment is repaired.

The primary goal in repairing a retinal detachment is anatomical success (putting the retina back where it should be). Once this is accomplished, hopefully vision will improve. It is impossible to determine how much vision a person will regain once the retina is attached. Re-attachment of the retina can be accomplished 90% of the time. The reason it fails in 10% of patients is often because of scar tissue formation.

1. Scleral buckle

A scleral buckle is often performed by itself or in combination with vitrectomy surgery (*see below*). A scleral buckle involves placement of a silicone band or sponge on the outside of the eye. The explant indents the eye wall towards the retina and helps to seal the retinal tear/s that caused the retinal detachment. The scleral buckle is then left permanently in place.

2. Vitrectomy

A vitrectomy involves the removal of the gel that fills the inner part of the eye. This procedure can help relieve the traction that caused the retina to tear. After the gel is removed, it is often replaced with a temporary gas bubble. The gas bubble floats inside the eye and helps to flatten the retina, when it is in contact with the retinal breaks. The gas bubble is resorbed on its own and is replaced with clear fluid produced naturally within the eye. Laser is often used during surgery to tack the retina in place.

If scar tissue is identified on the retina, it will be removed in an effort to make the retina more mobile and allow it to go into its normal position. If there is a large amount of scar tissue, and the

doctor feels that a longer pushing action than a gas bubble provides will be needed, silicone oil maybe used.

Silicone oil is a clear, thick fluid that remains in the eye for as long as the doctor feels necessary, but is typically removed within 3-6 months.

Sometimes a scleral buckle (*see above*) is done at the same time as a vitrectomy.

WHAT TYPE OF ANESTHESIA IS USED? WHAT ARE ITS MAJOR RISKS?

Retinal detachment surgery is often performed under local anaesthesia, with sedation. General anaesthesia may be used instead in some cases. It is typically performed in a day surgery or hospital setting. In some cases a hospital stay overnight may be required.

There are some risks associated with anaesthesia, whether general or local.

Complications of anaesthesia injections around the eye may include:

- Perforation of the eyeball
- Injury to the optic nerve resulting in loss of vision
- Haemorrhage, retinal detachment
- Interference with retinal circulation resulting in possible vision loss
- Drooping of the upper eyelid
- Systemic hypotension or lowering of the blood pressure
- Respiratory depression
- General anaesthesia can result in heart and breathing problems, and in a very unusual and rare instances, death or diminished brain function can occur

WHAT ARE THE MAJOR RISKS OF RETINAL DETACHMENT SURGERY?

There is no guarantee that the surgery will improve your condition. Sometimes it doesn't work. In addition, surgery is risky. Sometimes it can make the problem worse, cause an injury, or create a new problem and if it does, this is called a complication.

Complications can happen right away or not until days, months, or years later. You may need more treatment or surgery to treat the complications.

Below is outlined some of the important risks associated with retinal detachment surgery to help better inform you and to allow a careful decision on whether to proceed with the proposed surgical procedure.

Retinal detachment surgery risks:

- Vision loss
- Double vision
- Blindness
- Loss of the eye
- Retinal re-detachments that may require additional surgery or may be inoperable
- Elevated eye pressure (glaucoma)
- Poorly healing or non-healing corneal defects
- Corneal clouding and scarring
- Cataract, which might require eventual or immediate removal of the lens
- Eye lid droop
- Loss of circulation to vital tissues in the eye, resulting in decrease or loss of vision
- Phthisis (disfigurement and shrinkage of eyeball)
- Bleeding within the eye and orbit
- Infection
- Injury to the eye or nearby body parts

Finally, if you have any further questions, or if you would like Dr Hogden to explain more, please do not hesitate to ask.