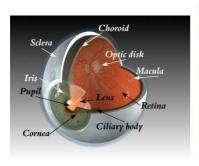
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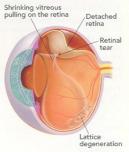
## Information for patients with detached retina

What is a retinal detachment?
What are the treatment options?
How is a retinal detachment treated?
What are the benefits of surgery?
What are the risks of surgery?
Which operation should I have?
Before retinal surgery
After retinal surgery

#### What is a retinal detachment?

If you think of your eye as a camera, the eye has a fixed focus lens(Cornea) a variable focus lens (Lens) and a camera film at the back (Retina) with a jelly filling the eye inbetween (Vitreous). In structural terms, think of your retina as wallpaper lining the inside of the eye. In functional terms, think of your retina as a soccer pitch with a centre spot where the kick off is taken from. The eye has a centre spot called the macula that is responsible for your eyes ability to see colours, recognise faces, and read. The remainder of the retina near the sidelines, corner flags and goal posts is only responsible for movement vision.







A retinal detachment is where the camera film has peeled off from the corner flag. It has peeled off usually because the jelly in front of it has shrunk and collapsed pulling on weak areas (Lattice) to cause tears to form. Fluid in the jelly subsequently seeps under the retina through the tear(s) and peels it off. If the centre spot remains attached the reading vision is usually unaffected but you will have noticed misty vision spreading towards the centre. When the centre spot is detached the reading vision is also reduced.

# What are the treatment options?

Do nothing
Have an operation to heal the detached retina
Wait and then decide

Do Nothing

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If nothing is done, the retina will usually continue to detach at variable rate until all sight is lost. Exceptionally a detachment can spontaneously heal. Doing nothing may be appropriate when the retina has been detached for longer than a year and the other eye enjoys good vision.

#### Have an operation to heal the retinal detachment

90% of patients, with one operation, can expect the detached retina to heal. With further surgery recurrent detachments can usually be fixed.

#### Wait and then decide

If the detachment is only slowly progressive it may be reasonable to see if it is stable and only consider the surgical option if progression can be demonstrated.

#### How is a retinal detachment treated?

In principle all the torn areas of retina have to be found and glued. Biological glue has to be applied either using laser or cryotherapy. Cryotherapy is guicker and therefore preferred although laser is more appropriate when more extensive glue is required. The torn areas then need to be supported until the glue sets(7-10 days). The support can be provided externally by silicone strapping (Explant =Buckle =Plomb) or internally by a gas bubble. Gas support is usually performed following removal of vitreous (vitrectomy) although it can be performed without vitrectomy(pneumatic retinopexy). The choice of internal or external approach has to be tailored to each individual with respect to the complication profile and one-operation success rates. My general rule is to use external support where the torn area of retina is known as a dialysis and where a patient is pre-presbyopic i.e. under 35 years of age and has variable focusing power of the eye still intact. Where the torn areas are very large or more towards the back part of the eye or if there is blood in the vitreous then internal support with vitrectomy is the choice. In all other cases, the choice is dictated by understanding the balance between simplicity of the operation and the differences in one-operation success rate. See table under Which Operation should I have?

# What are the benefits of surgery?

With successful surgery one can be confident of the peripheral movement vision being restored. Normal driving and reading vision is much more likely if the centre spot has NOT detached prior to surgery. There is variable recovery of this central vision if the centre spot is already detached. These benefits are NOT instant. In those eyes that have good vision prior to surgery the vision following surgery is normally much worse in the short term.

#### What are the risks of surgery?

• Those of the anaesthesia

#### Rare but serious complications

• Infection & bleeding into the eye (1:1000). Many of these problems are treatable but blindness is possible in the worst-case scenario.

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- Sympathetic Ophthalmia (1:1500-1:800). This is an extremely rare inflammation of the un-operated eye that can result from any operation that involves opening the eye but is said to be a little more frequent with repeat vitreous surgery. It can usually be successfully treated with steroid tablets or injections into and around the eye.
- Retinal Re-detachment (5-10%). This is a condition where excessive scar tissue forms due to an exaggerated healing response and pulls the retina off again.
- Double vision. This is usually transient and more likely with an explant procedure. If the double vision persists it can usually be corrected with further eye muscle surgery.
- Macula hole formation. This is rare and may be managed with further vitreous surgery.
- Epiretinal membrane. This causes blurred vision many months after successful surgery and is due to scar tissue that forms at the centre spot. It can usually be fixed with further retinal surgery.
- Dilated pupil. Occasionally the pupil of the eye can take a long time to return to its normal size. There are many ways of overcoming this problem.

### More common but less serious complications are:

- Cataract. At 2 years following vitrectomy 75-80% of patients will develop a cataract. This is where the variable focus lens inside the eye becomes cloudy. It is a treatable complication.
- Glaucoma. Usually temporary and treatable medically but occasionally requiring operative intervention.
- Macular oedema. A treatable waterlogging of the centre spot due to postoperative inflammation.
- Increased floaters especially following an explant procedure. Patients usually get used to this but if the floaters are intolerable they can be removed surgically.
- Eye redness and grittiness due to tissues healing and stitches dissolving.

## Which operation should I have?

For selected cases there is only one option but for the majority the option selected is a trade off between simplicity, one operation success rate and complications as below:

	Explant	Vitrectomy: Gas	Gas: No Vitrectomy (Pneumatic)
Anaesthetic	Local or General	Local or General	Always Local
Speed	1-2 hours	1-2 hours	15-30 minutes

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One-operation	80-85%	80-95%	60-70%	
Success				
Cataract	No	Yes	Yes	
Can Fly Post Op	Yes	No	No	
Floaters Post Op	Yes	No	Yes	
Double vision	Temporary	No	No	

## Before retinal detachment surgery

You will have a pre-assessment visit with our nursing staff. They will take baseline information including a measurement of the eye to determine the strength of a lens implant should there be a need to remove a cataract while the vitrectomy is being performed.

#### After retinal detachment surgery

You will be asked to posture for 10 days following surgery: every hour of every day for 10 days with 10-15 minute rest periods every hour. The specific position to adopt will vary.

With a gas or silicone oil filled eye, the vision is usually much worse post-operatively for between 2 weeks to 3 months. Patients often find it helpful to block off the vision in that eye using a pirate's patch or masking tape over a spectacle lens. There is often a pricking gritty sensation around the eye. With the posturing there can be a lot of eyelid swelling almost as though you have been 10- rounds with Frank Bruno.

It is crucial that if you have a gas filled eye that you do NOT fly in an aircraft until all gas has disappeared. Depending on the gas type used you should NOT fly for between 2 weeks to 3 months following surgery. It is also crucial that if you are to have a general anaesthetic shortly after this surgery for other elective or emergency operations that you discuss your previous eye surgery explicitly with an anaesthetist who will modify his/her methods to avoid blinding complications during such anaesthesia.

Once the posturing is completed it is possible to resume everyday activities. You are allowed to drive if the un-operated eye has appropriate vision, the operated eye is occluded and you have become accustomed to being one-eyed. You will be seen routinely 1-2 weeks, 6 weeks, and 3 months postoperatively. It is NOT usually possible to assess the success of the surgery until the gas has disappeared. As the gas bubble reduces in size there can be many benign symptoms such as a wobbly object in the lower part of the vision, variable vision for reading depending on head position and sometimes seeing more than one bubble as it breaks up. These symptoms all disappear once the bubble has disappeared.