

Retinal detachment surgery

Your eye doctor has advised you to have retinal detachment surgery. You might want to discuss the information with a relative or carer. Before you have the operation, we will ask you to sign a consent form, so it is important that you understand the information in this leaflet before you agree to go ahead with surgery. If you have any questions, we suggest you write them down so you will remember to ask one of the clinical staff at the hospital.

What is retinal detachment?

The retina is a thin layer of nerve cells that lines the inside of the eye. It is sensitive to light and you need it to be able to see properly. Your retina is detached because it has one or more holes (retinal tears) forming in the outer part of the retina that allows the vitreous (the jelly-like fluid substance within the eye) to pass underneath it and lift it off, a bit like a bubble in wallpaper (see figure 1). This fluid causes the retina to become separated from the supporting and nourishing tissues underneath it. Small blood vessels might also be damaged and cause bleeding into the vitreous which might cause further clouding of your vision. Without treatment, a retinal

detachment usually leads to blindness
in the affected eye.

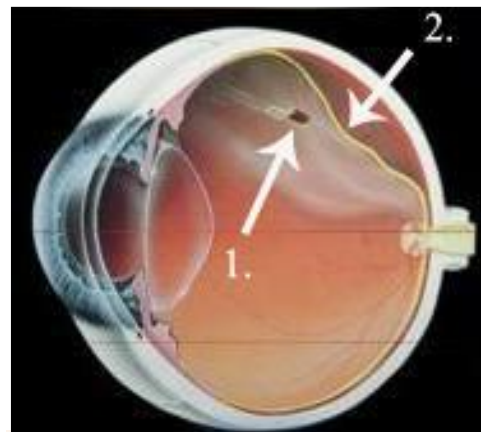
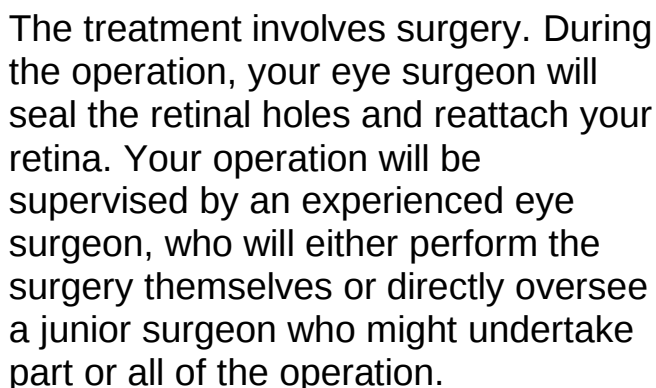


Figure 1-retinal tear (1) leading to retinal detachment (2).

Most retinal detachments occur as part of the natural ageing process in the eye. It is unlikely that it would be caused by anything that you have done. Anyone can develop a retinal detachment at any time, but certain people are at higher risk than others. These include people who are short sighted, those who have had cataract surgery in the past, and those who have recently suffered a severe direct blow to the eye. Some types of retinal detachments can run in families, but these are rare.

Treatment of retinal detachment



Most operations for retinal detachments are performed under a local anaesthetic, which means you will be awake throughout your operation. We will inject local anaesthetic into the area around your eye to numb your eye and prevent you from feeling any pain during the operation. You will not be able to see details of what is happening, but you might be aware of bright lights or movement in the operating theatre. During the operation, we will ask you to lie as flat as possible and keep your head still.

General anaesthesia, where you are asleep for the whole operation, is rarely used for retinal detachment surgery. If you require a general anaesthetic, you will need to follow specific instructions about eating and drinking prior to your operation. Please ask for our leaflets on local and general anaesthetic if you would like more information, or refer to our website here:

<http://www.moorfields.nhs.uk/content/having-operation>.

Your surgeon will perform one of the following procedures to repair your retinal detachment:

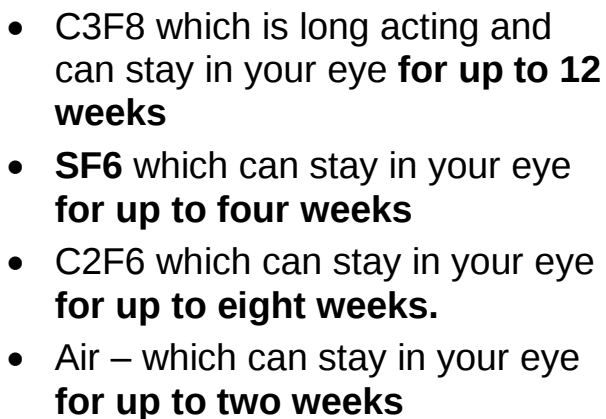
In cryotherapy and scleral buckle, we can seal retinal holes by applying 'splints' (buckles) on the wall of your eye. The buckle is made of sponge or solid silicone material. It is positioned, outside the white of the eyeball, under the skin of your eye and usually stays there permanently.

Vitrectomy operations are keyhole surgery for the eye. The surgeon makes tiny openings, less than 1mm across, in your eye and removes the vitreous from inside. Next, the surgeon finds the breaks in the retina and treats them with laser or cryotherapy (freezing). This causes an adhesion and scarring, which will seal the break. The seal usually takes ten days to form. We then put a gas bubble, air or silicone oil in your eye. This acts as a 'splint' to hold the retina in position until the tear is sealed.

If we put a gas, oil or air bubble in your eye **you must not fly for the periods of time specified in the next page.** This is because the gas or air bubble will expand in size and thus can lead to raised pressure inside your eye, leading to visual loss.

We use **three types of gases**:





You should not fly for two weeks after the insertion of silicone oil unless you have received clearance from your consultant.

If we use silicone oil, we might need to remove this during a further minor operation several months after your first surgery. At the end of the operation, we may put small stitches on your eye and then put a pad and clear shield over your eye to protect it. The pad and shield will be removed the following morning and you only have to wear the clear eye shield at night-time for three weeks after your operation.

It is important to note that these can react with another gas called **nitrous oxide**, which can cause problems in your eye if any is administered. Nitrous oxide is commonly used during childbirth and in A&E as pain relief. Please tell the midwife or A&E staff treating you (or ask your family to) that you have gas in your eye and that **they should not administer any nitrous oxide**. Should you need a general anaesthetic for any reason during this

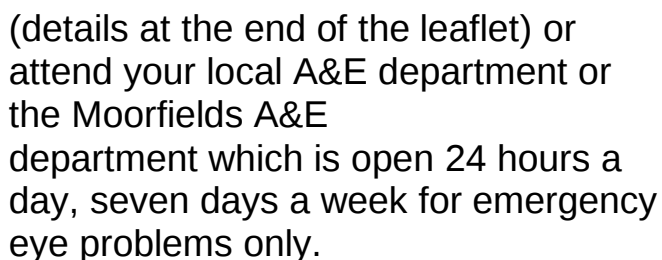
time, it is important that you also tell the anaesthetist that you have had surgery and gas in your eye.

We will give you eye drops to reduce any inflammation and to prevent infection. We will explain how and when you should use them. **Please don't rub your eye as this may increase infection and lead to complications.**

If you experience discomfort, we suggest that you take a pain reliever, such as paracetamol – take care not to exceed the dose stated on the packaging.

It is normal to feel itching and have sticky eyelids and mild discomfort (gritty sensation due to the stitches) in the operated eye for five to ten days following retinal detachment surgery. It is also common for some fluid to leak from around your eye. Occasionally, the area surrounding your eyes can become slightly bruised – this is especially common after a scleral buckle procedure. Any discomfort should ease after one to two days. In most cases, your eye will take about two to six weeks to heal. We will make an appointment for you to see your doctor again, usually within seven to 14 days of your operation. Try to rest while your eye is healing.

If you experience a lot of pain, loss of vision and/or have an increase of redness of the eye, you should telephone Moorfields Direct for advice



This is normal and you should not be alarmed by it. Once the retina is attached, your sight will continue to improve slowly over several months. You might be given sight tests to see if glasses would improve your vision.

This is the hardest part of the recovery following your surgery, but the most important. If we put gas or silicone oil in your eye, we usually ask you to “posture” for up to seven days. This means lying or sitting in a position that keeps your head in a particular position (this is so that the bubble floats up and presses the retina into position while it is healing). Your surgeon will advise you if it is necessary for you to posture, and in which position, after your surgery and will give you another information leaflet to show you how to do this.

Your final vision will depend on the nature of your original detached retina. If we diagnose and treat it quickly and successfully, most of your central vision will be restored. If, the eye already has poor central vision, when we diagnose a detached retina, we might not be able to restore all of your central sight. You might not be able to read using the affected eye. From a distance, you might not recognise faces or be able to read car number plates, for example, but you will be able to see people and objects approaching you from the sides. Side vision is very important for day-to-day activities such as going out and climbing stairs. You still may be able to drive if your other eye has normal vision, but please refer to our 'DVLA licence FAQ's-vision and driving' leaflet for further information on this.

As the gas bubble begins to disperse, you will notice a line in your vision that moves, similar to a spirit level. You will be able to see above the line, but under the line the vision will be fuzzy or blurred. The gas will eventually disperse until it is only a small bubble in the bottom of your eye and then the bubble will disappear too. The length of time the gas stays in your eye depends on which gas is used.

After surgery, it usually takes some weeks for your vision to recover. If we used a gas bubble, your vision will be very blurred immediately after surgery.

The benefits of retinal detachment surgery

The most obvious benefit is that the surgery prevents you from going blind. You have already lost some sight because of the detached retina. If the surgery is successful, it will usually bring back some, but not all of your sight.



The risks of retinal detachment surgery

Retinal detachment surgery is not always successful. Every patient is different, and some detached retinas are more complicated to treat than others. Some patients might need more than one operation. Your surgeon will discuss with you the risks and benefits of the operation you are about to have.

These are the risks that appear on the consent form for the operation:

1. There is an 85-90% success rate with one operation of your retina being reattached and staying attached. There is a 5-10% risk that you will need further surgery due to new breaks forming in your retina, the development of scar tissue or re-detachment of your retina.
2. Due to the surgery and the insertion of gas in your eye, you could develop a cataract in the operated eye. This is usually treated when the cataract develops.
3. Every surgical procedure carries the risk of infection and haemorrhage (bleeding). Eye surgery is no different – the risks are low, but should they occur, you could have permanent visual loss.

Complications are not common and in most cases we can treat them effectively. Very rarely, some complications can result in blindness.

Possible complications after the operation

- Bruising of the eye or eyelids

- High pressure inside the eye
- Inflammation inside the eye
- Cataract
- Double vision
- Allergy to the medication used
- Infection in the eye (endophthalmitis) – this is very rare, but can lead to serious loss of sight

Further surgery

If you fall into the 5-10% of people who develop another retinal tear or develop scar tissue, you will need to have more operations. When a retina is detached, the eye naturally tries to heal the damage. Instead of being helpful, this healing process leads to scar tissue forming inside the eye and the retina contracting. Your doctor might refer to this as 'proliferative vitreoretinopathy' or PVR for short. PVR is associated with poorer vision and can cause the retina to become detached again after successful surgery to reattach it.

Cataracts

Like a camera, the eye has a lens, which focuses light onto the retina. When the lens of the eye becomes cloudy, this is called a cataract and normally occurs as part of the aging process. You are more likely to develop a cataract, partly because of the detached retina and partly because of the surgery you received. We can treat cataracts by removing the lens and replacing it with a plastic lens.

Frequently asked questions

How long does it take for the redness in my eye to go?

Generally, the redness takes a few weeks to settle. The eye is red as a result of the surgery and this is entirely normal during the post-operative period.

How long does it take for the stitches to dissolve?

There is no set time for this, as it will depend on the healing process after the surgery. In most patients, it takes around four or five weeks for the stitches to dissolve. We can advise you about this at your post-operative clinic appointment.

Can I shower and wash my hair?

Yes, you can, but be careful not to let any soapy water run into your eye. If this occurs, use your post-operative eye drops to rinse your eye out.

Should I wear dark glasses? If so, for how long?

Yes, you can wear dark glasses if your eye feels more comfortable with them for as long as you like.

Is it normal to get floaters after retinal surgery?

Yes, particularly with gas in the eye. If you are worried, you can contact us on any of the numbers at the end of this leaflet for advice.

Will it strain my eye if I try to read, watch TV or use the computer?

No, you may do all of these things without causing any damage to your eye.

When can I drive again and do I need to inform the DVLA of my surgery?

When you can drive again will depend on the vision on the other eye, which was not operated on. We will assess this when you attend the post-operative clinic. You will be advised whether you will need to contact the DVLA at this appointment.

What should I do if I get pain in my eye?

It is normal to feel some discomfort after your surgery. This should be relieved by taking regular pain-killers, such as paracetamol. If you experience severe pain in your eye, please contact us for advice.

How long do I have to wait before I can resume exercise?

It is safe to do light, gentle exercise such as walking after your surgery, but please avoid all strenuous exercise.

Are there any types of food I should avoid?

You may eat and drink as normal, but try to eat as healthily as possible to avoid constipation.

Useful contacts

Advanced nurse practitioner, vitreo retinal service based at Moorfields Eye Hospital in City Road

Opening times: Monday – Thursday, 7.30am-5.30pm

Phone: 020 7253 3411, bleep 417

Staff nurse, vitreo retinal service

Opening times: Monday- Thursday, 7.30am-5.30pm

Phone: 020 7253 3411, bleep 422

Mackellar ward based at Moorfields Eye Hospital in City Road, open seven days a week

Phone: 020 7566 2590

Author: Yvonne Kana, advanced nurse practitioner, VR service

Revision number: 7

Approval date: July 2020

Review date: July 2023

Moorfields Eye Hospital NHS Foundation Trust

City Road, London EC1V 2PD

Phone: 020 7253 3411

www.moorfields.nhs.uk

Moorfields Direct telephone helpline

Phone: 020 7566 2345

Monday-Friday, 8.30am-9pm

Saturday, 9am-5pm

Information and advice on eye conditions and treatments from experienced ophthalmic-trained nurses.

Patient advice and liaison service (PALS)

Phone: 020 7566 2324/ 020 7566 2325

Email: moorfields.pals@nhs.net

Moorfields' PALS team provides confidential advice and support to help you with any concerns you may have about the care we provide, guiding you through the different services available at Moorfields. The PALS team can also advise you on how to make a complaint.

Your right to treatment within 18 weeks

Under the NHS constitution, all patients have the right to begin consultant-led treatment within 18 weeks of being referred by their GP. Moorfields is committed to fulfilling this right, but if you feel that we have failed to do so, please contact our patient advice and liaison service (PALS) who will be able to advise you further (see above). For more information about your rights under the NHS constitution, visit www.nhs.uk/choiceinthenhs

