Ophthalmology department

Retinal detachment

Information for patients, relatives and carers

Introduction

This leaflet has been designed to give you information about **retinal detachment** and answer some of the questions that you or those who care for you may have. It is not meant to replace the discussion between you and your medical team but aims to help you understand more about what is discussed. If you have any questions about the information, please contact us.

What is the retina?

The retina is the light-sensitive nerve tissue at the back of the eye. It covers about two thirds of the eye's inside surface. Light that falls on the retina is converted into signals and transmitted to the brain. The interpretation of these signals by the brain means you can see the world around you.

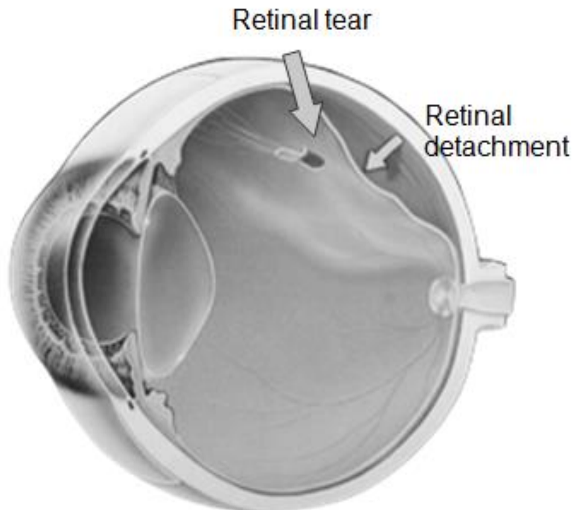

*Image courtesy of http://www.tedmontgomery.com

What is retinal detachment?

A retinal detachment happens when the retina peels away from the inner wall of the eye. This can happen when:

- there is a tear or hole in the retina that allows fluid to seep in and collect between the layers of the retina
- the eye receives significant direct trauma, such as a severe hit

- scar tissue on the surface of the retina pulls on and detaches the retina. This can occur in conditions such as diabetic eye disease, sickle cell eye disease, inflammatory or infectious eye diseases, or after retina surgery
- fluid leaks out of the blood vessels behind the retina and accumulates in the layers of the retina. This can be caused by inflammatory eye diseases or tumours

Retinal detachments are rare. Around 1 in 10,000 people a year develop this condition. Most retinal detachments happen when someone is between age 60 and 70. You have a slightly higher risk of developing a retinal detachment compared to the general public if you:

- are very short sighted (-6.00 D or more)
- have suffered significant injuries to the eye before
- have had a retinal detachment in one eye before
- have a family history of retinal detachment
- have had cataract surgery

What are the symptoms?

There are four main symptoms you may experience when a retinal detachment occurs:

- floaters (dots and lines which move around wherever you look)
- flashes
- a dark shadow or curtain across your vision
- blurred vision

Floaters and flashes are very common and do not always mean you have a retinal detachment. If you have these symptoms, it is only possible to tell if you have a retinal detachment when you have your eyes checked professionally. It is very important to have your eyes checked if you notice a sudden change or increase in these symptoms.

Any loss of vision you may start at the edge of the visual field (also known as side or peripheral vision).

A retinal detachment does not cause pain as the retina has no nerve fibres that detect pain.

How do you treat retinal detachment?

If you have a retinal detachment, you will need to have surgery to re-attach the retina to the back of the eye.

There are three different ways in which the retina can be re-attached. These are:

- **Vitrectomy**, which involves removing the vitreous (a gel-like substance) from the middle of the eye.

- Then your eye surgeon will search for and repair any holes within your retina. Then either a gas or oil bubble will be placed into your eye to help the retina stay in its proper position and support it while it heals.
- The gas bubble is slowly absorbed by the body over two to eight weeks. The silicone oil is not absorbed by the body so a further operation will be required at a later date to remove it. Your vision will be very blurry to start with, due to the presence of the gas or oil bubble. Vitrectomy surgery is usually performed under local anaesthesia with or without sedation. In certain circumstances, general anaesthesia may be used.
- **Scleral buckle**. The sclera, or the white of the eye, is the protective covering that wraps over most of your eyeball. In this surgery, a surgeon attaches a small silicone band or a sponge (buckle) onto the white of the eye. The buckle is designed to repair retinal detachment by pushing the sclera toward the retinal tear or break.
- The buckle is usually left in place permanently and is not visible after surgery. This procedure usually requires a general anaesthetic.
- **Pneumatic retinopexy**, which involves freezing the retinal tear location to allow the tear to seal and injecting a small gas bubble into the eye to support the retina as it heals to help the healing process. This procedure is done under a local anaesthetic.

What should I expect after the surgery?

If a gas bubble or silicone oil was used during surgery, you may have to posture (sit or lie down with your head in a particular position, usually for 25 minutes in every half hour). This is all day and at night for a period of five to seven days after surgery. This allows the gas bubble or silicone oil to push against the reattached retina as it heals. You will receive clear instructions from your surgical team on how to do this, but if you have any questions please ask.

- **You must not fly while there is gas bubble in the eye** as the change in air pressure can cause the gas bubble to expand and lead to severe consequences.
- Should you require any other surgery while there is a gas bubble in your eye, you **must** inform your anaesthetist because some commonly used anaesthetics can interact with the gas bubble in your eye.
- You must not inhale a gas commonly used in Accident & Emergency or childbirth for pain relief called nitrous oxide (sometimes known as gas and air).
- You will have a coloured alert wristband applied before you leave the operating theatre which should not be removed until the gas bubble has gone or disappeared. This is so other healthcare professionals are aware that you have gas in your eye.

How you could feel after the surgery

Your eye may feel sore, and your eyelids may be slightly swollen immediately after surgery. This will get better over a couple of days, please take over-the-counter painkillers such as paracetamol if you need to.

For about five to ten days after the operation, it is normal to:

- feel itching
- have slightly sticky eyelids
- have mild discomfort – a gritty sensation due to the stitches

It is also common for some fluid to leak from around the eye.

Sometimes the area around the eye can be bruised – this is especially common after a scleral buckle.

It is unlikely that you will need to stay in hospital overnight. When you are discharged from hospital you should ask your doctor about returning to work or driving. The restrictions related to these activities may vary from person to person. Continue with your prescribed eye drops for four weeks and avoid any strenuous activity such as running for four to six weeks. You may ask your team the specifics for any activities you have in mind.

You will be given a follow-up appointment for around two weeks after your operation. If a gas bubble was injected, your surgeon is likely to see you sooner to check your eye pressure.

What results can I expect from the surgery?

The success rate for treatment of retinal detachment in a single surgery is approximately 85 to 90 per cent. This means that there is a 10 to 15 per cent chance that you will need a further operation due to new tears forming in the retina, the development of scar tissue or the re-detachment of the retina.

Your vision after recovering from surgery will vary based on three main factors, which are:

- if the central part of the retina (the macula) was detached before surgery. (Cases where the macula was attached prior to surgery are likely to have a better visual outcome than those where the macula was detached before surgery.)
- if you have other, co-existing, eye problems such as diabetic retinopathy.
- if you develop retinal scarring.

Vision takes some time to improve and may not fully return to normal.

It is important to note that if a gas bubble was injected during surgery, your vision will be poor until the gas bubble has been reabsorbed. This is because your eye cannot see through a gas bubble, but is only temporary. You may also need to change your glasses once the eye has healed to improve your vision.

The benefits of retinal detachment surgery

The most significant benefit is that the surgery prevents you from going blind. You may have already lost some of your sight due to the retinal detachment. If the surgery is successful, it will usually bring back some of your vision, but not all of your vision.

What are the risks of retinal detachment surgery.

Unfortunately, as with all operations, retinal detachment surgery is not always successful. Every patient is different, and some detached retinas are more complicated to treat than others. Some patients need more than one operation.

Due to the surgery and the insertion of gas or oil into your eye, you are at greater risk of developing a cataract within the operated eye. A cataract is when the lens of the eye becomes cloudy and can be treated with surgery.

There is a low risk of infection and bleeding (haemorrhage), like there is with any surgical procedure. Should this happen, you could permanently lose your vision or your eye, and you should immediately attend the casualty eye department.

Complications of retinal detachment surgery

Complications are not common and, in most cases, they can be treated. Very rarely, however, some complications can result in no improvement in vision or worse vision or blindness.

- **Bruising of the eye or eyelids** – this happens when the skin of the eye and around the eye appear red and bruised. This is common and usually clears up on its own within a few weeks.
- **Inflammation inside the eye** – this is very common after surgery but can be helped by using some of the drops you will be given to take home with you after the surgery.
- **Double vision** – this is common after surgery. Double vision can be due to the local anaesthetic that's used after the surgery. This should clear up within hours or days. If a scleral buckle surgery was used, then this may take longer to settle down.
- **Allergy to the medication used** – if this occurs pleases contact the Western Eye ospital accident and emergency department for advice.
- **Cataract** – this is common after retinal detachment surgery if you have not already had cataract surgery. The chance of you developing a cataract and needing a cataract operation may be around 1 in 5 within one year after retinal detachment surgery. The chance is less if you are younger and if you have no cataract present before surgery. A cataract is a clouding of the lens inside your eye which can cause blurred or reduced sight.
- **Raised pressure in the eye** – this is common. If the eye pressure is very high after surgery, it can be painful and patients can experience nausea and vomiting. Usually, the pressure can be controlled with eye drops or medications for a few weeks. Occasionally, further surgery is required. Rarely, the sight is damaged permanently, particularly if the pressure rise is very high and prolonged without treatment.
- **Sympathetic ophthalmia** – this is a very rare condition where surgery to one eye can cause inflammation in both eyes. This may require strong medications and can result in poor sight in both eyes. This condition could occur in less than 0.1 per cent of cases.

- **Endophthalmitis** – this is an infection inside the eyeball. It could occur in less than 0.1 per cent of cases after surgery. This could lead to permanent sight loss and you will need further treatment to resolve the infection.
- **Choroidal haemorrhage** – this is bleeding between the layers of the wall of the eyeball and could occur in around 1 in 1000 patients. This complication will affect vision long-term and further operations will be required.
- **Loss of the eye** – this is a very rare event following this operation.

Who you can contact for more information

If you have questions before your appointment, please contact the pre-assessment nurse on **020 3312 9729/ 9730** at Western Eye Hospital or **020 3311 0137** at Charing Cross Hospital between 09.00 and 17.00, Monday to Friday.

If your eye becomes red or painful, or your vision gets worse, please contact:
Western Eye Hospital emergency department:
020 3312 3245

Western Eye Hospital eye clinic:
020 3312 3236

Alex Cross ward at the Western Eye Hospital:
020 3312 3227

Charing Cross Hospital eye clinic:
020 3311 0137 or 020 3311 1126

Charing Cross Hospital – Riverside Daycare unit:
020 3311 1460

If you have not received a post-surgery appointment, please contact **020 3312 3275 option 2**

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net Telephone: 020 3312 1337 / 1349

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team: imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information, visit our website: www.imperial.nhs.uk

Department of Ophthalmology
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