Retinal Detachment

What is the retina?

The retina lines the inside of the back of the eye. It functions a bit like the film in the back of a camera, in that it absorbs light to form an image of the outside world. The most important part of the retina is the macula this is the part of the retina that the light is focused on. It gives the central vision that is important for fine visual tasks such as reading and driving.

What is a retinal detachment?

A retinal detachment occurs when a break in the retinal allows fluid to pass under the retina, so that the retina peels away from the back of the eye. It is a serious eye emergency and without treatment it can cause blindness in the affected eye. If you are diagnosed with a retinal detachment it is important that you see an eye doctor (ophthalmologist) immediately. You may then be referred to an ophthalmologist who is also trained as a retinal surgeon, such as myself. Most people develop a retinal detachment spontaneously, that is, it is not caused by anything they have done. It is more common in people who are shortsighted (myopic).

What are the symptoms of retinal detachment?

People often notice spots floating in their vision (floaters), or flashing lights, in the period leading up to a retinal detachment. As the retina detaches it causes an enlarging blind spot that may progress to involve the macula. When this occurs the central vision is much reduced (called a macular-off detachment). Some small retinal detachments that haven't affected the macula (macular-on detachments) may go unnoticed and be picked up during a routine eye examination by an optician. In summary, the key symptoms are flashing lights, floaters, bits missing from the vision, or 'curtains' coming over this vision.

Do I need surgery?

Most patients with retinal detachments are advised to undergo surgery as retinal detachments seldom go away, and many progress to cause severe or total loss of vision in the affected eye. Very occasionally, longstanding detachments are kept under regular review or treated with laser.

What does surgery involve?

Patients usually require one of two types of operation: either cryobuckle surgery or vitrectomy. Cryobuckle surgery involves putting a silicone splint (explant/buckle) onto the outside of the eye to push the outside layers of the eye back into contact with the detached retina. The buckle is not normally visible as it is hidden under the skin of the eye (conjunctiva), and the eyelids. The retinal break is then sealed with a laser or freezing probe (cryoprobe). Victrectomy involves operating inside the eye and removing the clear gel (vitreous) that fills the cavity of the eye. The retina is pushed back into position with a bubble of gas, and the hole is sealed with a laser or cryoprobe. The gas bubble absorbs with time but whilst it is in the eye the patient is usually asked to keep their head in a particular position, to float the retina into the correct position. Surgery can be undertaken under a local anaesthetic (the patient is awake but with an injection to numb the eye), or general anaesthetic (asleep), and takes from about 30 minutes up to 2 hours, although most operations take about an hour.

It may also be recommended that you have laser or cryoprobe treatment to any weak areas in the other, unaffected eye, to reduce the risk of detachment.

What are the benefits of retinal detachment surgery?

This depends on the type of retinal detachment. If the macula is still attached, the aim is to prevent severe, central, vision loss. If the macula has already become detached then surgery aims to improve vision, but it seldom improves back to normal.

What are the risks of retinal detachment surgery?

All eye operations carry the risk of visual loss and this is true of retinal detachment surgery, however, severe surgical complications such as haemorrhage or infection are thankfully very rare (about 1 in 500 patients are affected). The most common problem is that the retinal detachment persists, or recurs, and further surgery is required to re-attach the retina. This is not uncommon, with 10-20% of patients requiring more than one operation to attach the retina. Even if patients may require more than one operation the good news is that most retinas (more than 95%) can be attached. In addition, those patients who require vitrectomy will usually go on to develop cataract and this usually requires surgery at some time. Those who have cryobuckle surgery may get double vision, but this usually settles.

Are there any particular precautions after surgery?

A nurse will go through the general instructions for someone who has just had an operation such as keeping the eye clean, use of eye drops, and follow up appointments. For those that had a vitrectomy there are additional instructions. Firstly they must not go up to high altitude as the gas in the eye will expand and this puts the eye pressure up. Hence they cannot fly, or go up high mountains until the gas absorbs, and this can take 1-2 months depending on what type of gas is used. Secondly, if they need a general anaesthetic they must inform the anaesthetist that they have gas in the eye, to avoid certain anaesthetic gases.

Any further questions?

Retinal detachment is a serious diagnosis that often comes as a shock. In addition, surgery is often performed relatively urgently so you may feel there is not much time to consider the options. For this reason it is important to ask questions. If you drive you should check with us whether it is safe to continue.

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