Retinal Detachment Information

How Does the Retina Become Detached?

The eye is like a tiny camera, with lenses in the front and film in the back. The film is called the retina. It lines the back three quarters of the eye like an inner tube. The center of the eye is filled with a jelly-like material called vitreous. It is thick during childhood, but later becomes watery. In many cases, the back layer of the vitreous can pull away from the retina, and in some cases, tear it. Fluid can then leak through the tear and allow it to detach from the back of the eye. This causes loss of vision because the retina relies on the back wall of the eye for its nourishment.

What Are the Symptoms of Retinal Detachment?

When the vitreous gel peels away from the back of the eye, the normally clear fibrous strands clump together and cast shadows, referred to as floaters. When the gel pulls or tears the retina, this stimulates the retina and may cause flashing lights to be seen. Flashes and floaters are the warning signs of a possible impending retinal detachment. Flashes and floaters do not always signify a retinal tear or detachment. Prompt evaluation by an eye doctor may find a retinal tear before it causes a retinal detachment. Laser surgery or cryotherapy (localized freezing treatment) may prevent the retina from detaching and save the patient from needing to have a more serious operation.

A progressively enlarging dark curtain or shadow in one eye often signifies a developing retinal detachment. The curtain usually starts in the peripheral or side vision and eventually may
spread to the central vision. At this point, laser treatment is not likely to be helpful and an operation is usually necessary.

**Treatment for Detached Retina**

There are several types of surgery that can repair a detached retina. The surgery usually consists of one or more of the following procedures:

**Scleral Buckle**- A plastic band is often placed around the eye to indent and support the area of the tear. It may extend all the way around the eye, like a belt, or it may be fixed to only one area. The patient cannot see or feel the band once the eye has healed. The scleral buckle is meant to stay in place for your entire life.

**Pneumatic Retinopexy**- If the tear causing the retinal detachment is in the top half of the eye, it may be possible to seal it with a gas bubble injected into the eye. This is combined with special head positioning to push the bubble against the tear, and laser or freezing to "glue" the tear back into position and prevent re-detachment. This is a good treatment option for only some retinal detachments. Your surgeon will advise you on your individual case. If the bubble does not work, scleral buckling and/or vitrectomy may be recommended.

**Vitrectomy**- This operation removes the vitreous jelly as well as any scar tissue or blood, which may have accumulated. The vitreous is replaced with a gas bubble or silicone oil. The gas is replaced by the eye’s own fluid over weeks to months without any further surgery. The silicone oil may need to be removed with a later surgery.

**Before the Operation**

A general physical examination is part of the preoperative routine. In some cases, other laboratory testing is necessary, depending on your age and physical condition. We will consult with your primary care physician to discuss your case and secure clearance for your surgery. An anesthesiologist will interview you and assist your doctor with preoperative medications.
**The Operating Room**

An intravenous line will be placed into an arm or hand vein. If you are having general anesthesia, you will not be aware of the operation. You will be in the recovery room when you wake up. If you are having local anesthesia, a tranquilizer will be injected in the intravenous line. You will be relaxed and sleepy. You may or may not fall asleep. A local anesthetic will be injected around, but not into your eye.

**After the Operation**

Following surgery you will remain in the recovery room for a short period under special supervision. You will have a patch on your eye. Some pain is to be expected, which is controllable by oral or injected medication. Some nausea is not uncommon and will also be treated with medication. If vomiting should occur after surgery, this will not harm the eye. The intravenous line may be discontinued once you are fully awake. Most retinal surgery can be done as an outpatient, but rarely an overnight hospital stay is required.

**Postoperative Examination and Advice**

You need to be examined the day after surgery and usually again within a week. At this time, you will be given an eye drop prescription, eye pads, tape and instructions. The main purpose of the eye patch is to soak up tears, and it may be removed once tearing has subsided. You may wash your hair at home or have it done at a hair salon. You should not allow running water directly on the operated eye, so you may want to wear an eye patch while showering and remove it when done. Most people may return to work within one to two weeks following surgery. Your eye may feel scratchy or sore, and you may have a stuffy nose for a few days after surgery. You may do whatever is comfortable, but should rest as needed.
If a gas bubble is placed in your eye during the surgical procedure, you should not fly in an airplane, travel over high altitudes, or receive anesthetic gases. Either can cause the bubble to expand, causing pain and possible damage to the eye. Your doctor can determine when it is safe to fly or have anesthetics. Your physician will tell you if special positioning or activity limitations are necessary.

Patients ultimately return to their referring doctor for their continuing care. If you wear glasses or contact lenses, the power of the lens may change as a result of your surgery. We usually do not recommend changing your glasses or contact lenses for about two months following surgery to allow the new prescription to stabilize.

The Outlook

If your vision was good before surgery, the chances are excellent that you will maintain normal or near normal vision following surgery. If the vision was poor before surgery, especially if the detachment was longstanding, the visual return may be slow and incomplete. A single operation successfully re-attaches the retina in more than 90 percent of cases. In a few cases, scar tissue may begin to form inside the eye, which pulls on the retina causing it to re-detach. If the retina should detach again, it usually does so within several months of surgery and can often be repaired with another operation. Great strides have been made in retinal detachment surgery over the past 20 years. Retinal detachment, which was once an incurable problem, can now be helped in the vast majority of cases.