

Retinal Detachment Repair Surgery

What is a Retinal Detachment?

The retina is the light-sensitive layer of nerve tissue that lines the inside of the eye and sends visual messages through the optic nerve to the brain. A retinal detachment occurs when the retina becomes separated from the rest of the layers of the eye. This usually occurs after you develop a tear in the retina. The extent of permanent damage depends on how much of the retina becomes detached and whether or not the center of the retina (the **Macula**) becomes detached. The macula is made up of special nerve cells that provide the sharp central vision needed for seeing fine detail (reading, driving etc.). If your macula has become detached, you have a worse visual prognosis and you may not regain good enough vision to read or drive with that eye even after successful reattachment surgery.

Why do I have a Retinal Detachment? What are the symptoms?

A retinal detachment occurs when a tear forms in the retina allowing fluid to get under the retina forming a detachment. They are more common in patients who are very near-sighted, have a family history of retinal detachment, and in eyes that have had prior trauma or eye surgery. Patients often complain of flashes, new floaters and a shadow forming in their vision when a retinal detachment occurs.

Assessment for Retinal Detachment:

We are able to detect a retinal detachment during an eye examination. Your surgeon will carefully examine your eye to identify all the retinal tears and determine the extent of the retinal detachment. He may need to press on your eye to examine your retina fully. He will then discuss with you an appropriate surgical plan to most safely and effectively reattach your retina.

Outcomes of Retinal Detachment Surgery:

Although a majority of our patients experience an improvement in vision after surgery, there are a small percentage of patients who do not have improved vision even after successful and uncomplicated surgery. When the retina becomes detached, some amount of retinal nerve damage can occur that is permanent. Your final visual outcome will depend on how much nerve damage occurred with your retinal detachment. Your vision after surgery will likely be worse if your macula has become detached. After retinal detachment surgery, there is a 90% chance of reattachment of the retina with one surgery. The biggest reason for failure of retinal detachment surgery is the formation of scar tissue that can cause the retina to detach again (**Proliferative Vitreoretinopathy**). The highest risk of another detachment is within the first 3 months following surgery. We will monitor you carefully for this during your postoperative visits. You need to keep in mind that our goal is to maximize the vision in your affected eye. A retinal detachment is a

very serious and potentially blinding condition. Even after successful surgery, your vision will likely never be as good as it was prior to your retinal detachment.

Risks of Retinal Detachment Surgery:

There are several risks associated with retinal detachment surgery that you need to be fully aware prior to proceeding with surgery. The most common are as follows:

- 1 in 1000 risk of infection (**Endophthalmitis**). Anytime surgery is performed on the eye infection is a possible complication. Sterile technique is used during the procedure to minimize risk of infection. Despite this, there is a very small chance that an infection can occur. If such an infection does occur it can be treated, although it may leave you with worse vision or in severe cases lead to blindness.
- 1 in 1000 risk of bleeding. Anytime surgery is performed on the eye bleeding is a possible complication. This can occur in or around the eye and lead to permanent vision loss. We will review any medications you are taking prior to surgery to determine if you are taking any blood thinners that can increase your risk of bleeding and if they can be stopped prior to your surgery; often blood thinners are not safe to stop so we may perform the surgery anyway.
- Progression of cataract. If you have not yet had cataract surgery, having vitrectomy surgery may accelerate progression of a cataract in that eye. Although not always the case, you can expect to need cataract surgery within a year of vitrectomy surgery in the operated eye.

Surgical Procedure:

Your retinal detachment surgery may involve a **Scleral Buckle** and/or **Vitrectomy** procedure. We use the most advanced surgical equipment and techniques available for retinal detachment surgery. A scleral buckle surgery involves positioning a silicone band around your eye beneath your eye muscles to bring in the walls of your eye. This elongates your eye and makes you more nearsighted. A vitrectomy surgery involves making small holes in the eye and using instruments to remove the jelly-like substance (the **Vitreous**) that normally fills the back chamber of the eye. The vitreous is replaced naturally by fluid produced inside the eye. The retina is then reattached and all retinal tears surrounded by laser or freeze welds. The eye is then filled with an inert gas or silicone oil to keep the retina in position as it heals. The gas bubble will usually dissipate from your eye within 2-3 weeks. You cannot change elevation (fly on an airplane or travel over mountain passes) while a gas bubble is in your eye. We will place a green bracelet around your wrist indicating this after surgery; do not take off the bracelet until the gas dissipates from your eye. In certain cases we may use silicone oil instead of gas; your surgeon will review with you if this is appropriate for your surgery. Retinal reattachment surgery usually takes about one hour to perform, but may be longer. It is typically performed under general anesthesia.

What should I expect following surgery?

After the surgery you will have an eye dressing placed on your eye. Do not remove this dressing until we see you in the clinic the following day when we will remove it for you. You will be given

instructions on which eye drops to use and all your restrictions at that time. You do not need to use any eye drops the night after your surgery. ***Please bring all your eye drops to your first postoperative visit.*** Most patients have some discomfort after surgery. You may need to position your head in a certain position after surgery. Your surgeon will review appropriate head positioning with you and your family members after surgery. The positioning will depend on where your retinal tear(s) are. It is very important that you position as instructed or your retina will be at a higher risk of detaching again.

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