

### **What is retinal detachment? Why is it important?**

Retinal detachment is a separation of the retinal tissue from the inside wall of the eye. Similar to wallpaper coming loose from a wall, the retinal tissue may develop folds or come completely away from its proper position along the interior of the eye resulting in loss of vision. The area of retina that is detached does not see light very well and the vision is blurred or lost.

A retinal detachment may progress quickly and lead to complete loss of vision of the eye if not treated. If a retinal break can be discovered before a retinal detachment develops it can be treated.

### **What are the symptoms of retinal detachment?**

Retinal detachment is painless. Shower of spots (floaters), bright lights (sparks), shadows in the visual field, blurry or loss of vision are the symptoms of retinal detachment.

### **How is retinal detachment diagnosed?**

An eye examination with dilated pupils will allow the determination of the source of your symptoms. Only after careful examination an ophthalmologist can tell whether a retinal tear or early retinal detachment is present.

### **How is retinal detachment treated?**

There are several options for treating a retinal tear or detachment. Laser therapy and cryotherapy are two non-surgical options.

Laser photocoagulation can repair smaller retinal tears. The laser creates small burns around the edges of the tear, producing scars. These scars seal the borders of the tear and prevent fluids from leaking toward the retina, thereby helping avoid detachment.

Cryopexy uses extreme cold to cause scar formation and seal the edges of a retinal tear. It can be performed on an outpatient basis.

Very small detachments of the retina can be surrounded by laser treatment or cryotherapy. Large retinal detachments, however, need to be repaired surgically.

### **What are the surgical methods for the treatment of retinal detachment?**

There are three methods for surgical treatment which are named as scleral buckle, pneumatic retinopexy and vitrectomy.

### **What is scleral buckle?**

Scleral Buckle is the most common surgery for repairing retinal detachment. The buckle closes the tear and helps reduce the traction on the retina, which prevents further vitreous pulling and separation. When you have several tears or holes or an extensive detachment, your surgeon may create an encircling scleral buckle around the entire circumference of your eye. Although scleral buckling is generally successful, sometimes the retina fails to reattach. A reattached retina doesn't guarantee normal vision. Sight isn't likely to return to normal if the macula was detached.

### **What is pneumatic retinopexy?**

Pneumatic Retinopexy is a surgical technique used for a relatively uncomplicated detachment when the tear is located in the upper half of the retina. Doctor injects a bubble of expandable gas into the vitreous cavity. Over the next several days, the gas bubble expands, sealing the retinal tear by pushing against it and the detached area that surrounds the tear. You may have to hold your head in a cocked position for a few days after surgery, to make sure the gas bubble seals the retinal tear. And it may take several weeks for the bubble to disappear completely. But the success rate of pneumatic retinopexy isn't as good as that of another procedure .

### **What is vitrectomy?**

Vitrectomy is a special surgical procedures applied in the treatment of some retinal pathologies. Bleeding or inflammation clouds the vitreous and blocks the view of the detached retina. In other instances, scar tissue makes it impossible to repair a retinal detachment with pneumatic retinopexy or scleral buckling alone. In these situations, removing the clouded vitreous or scar tissue is recommended.

In vitrectomy a variety of delicate instruments are passed into the eyeball through small openings in the sclera. These instruments include a light probe that illuminates the inside of your eye, a cutter to remove vitreous or scar tissue, and an infusion tube that replaces the volume of removed tissue with a balanced salt solution to maintain the normal pressure and shape of the eye.

After completing the vitrectomy, a surgeon may perform a scleral buckling procedure and may fill the inside of your eye with air, gas or silicone oil to help seal the retina against the wall of your eye.

Vitrectomy surgery typically lasts more than an hour but may take several hours in more complex cases. After surgery, patient may experience some discomfort and a scratchy sensation in your eye. Severe pain is unlikely. Some activities are avoided. It takes about 10 weeks for your eye to heal fully. But some people don't recover any lost vision.

**What are the complications of vitrectomy?**

The complications of vitrectomy are similar to those for other types of retinal detachment surgery. They include a retinal tear, recurring detachment of the retina, a cataract or an infection. Any of these complications can lead to partial or complete loss of vision in the affected eye or, rarely, loss of the eye itself.

**What is the success rate of vitrectomy?**

The success rate of treatment for this condition is high, with around nine out of 10 retinas able to be reattached. Sometimes, a second operation may be needed. After treatment, the person's vision may improve over subsequent months, but often some vision loss is permanent. A change of prescription glasses is usually required.

**What should a patient with retinal detachment do? How does a patient prevent retinal detachment?**

If your family has a history of retinal detachment, you are at risk, so you should be familiar with the signs and symptoms of this condition and you should have regular and complete eye examinations.

**How is the prognosis of the disease?**

About 40% of people who have their detachment successfully repaired have excellent vision within 6 months of surgery. The results are not usually as good when the retina has been detached for a long time or when there is a fibrous growth on the surface of the retina. The other 60% of people have will various levels of change in their reading and distance vision. If scar tissue develops, the retina cannot always be reattached. In this case, the eye will continue to lose sight and will eventually become blind