

RETINAL DETACHMENT  
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AND VITREOUS SURGERY

# RETINAL DETACHMENT AND VITREOUS SURGERY

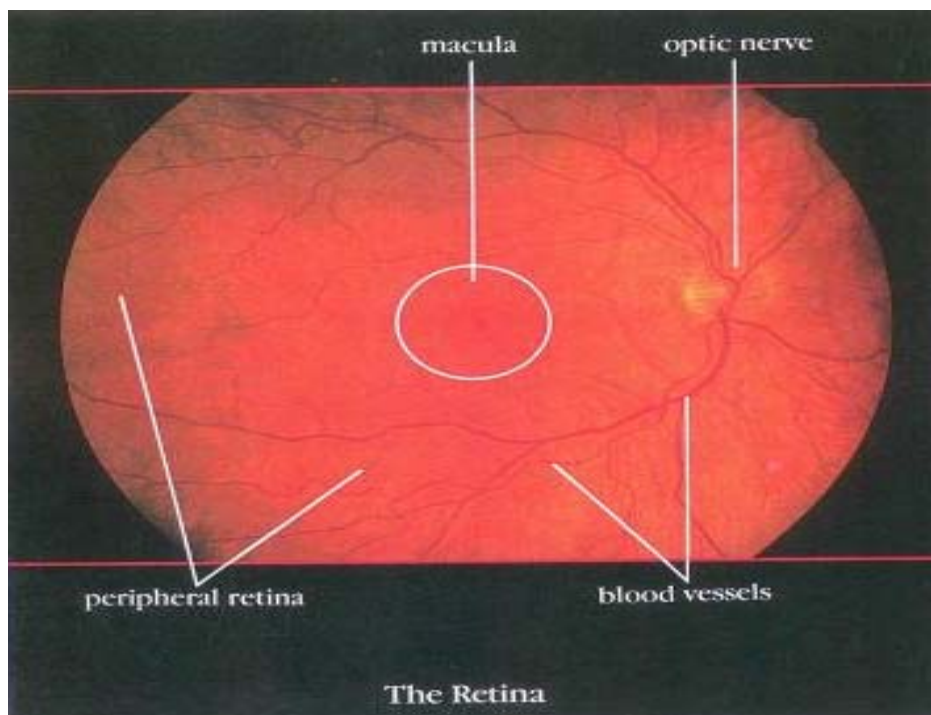
## The Retina

The retina has two parts: the peripheral retina and the macula. If you imagine the retina as a circle with a bull's-eye at the center, the macula is like the bull's-eye, it is very small.

The peripheral retina gives us vision to the side, called “peripheral” vision. It is this part of the retina that is at work when we see something out of the corner of the eye.

In order to see fine detail, you must look straight ahead, using the macula, the “bull's-eye” center of the retina. Even though the macula makes up only a small part of the retina, it is one hundred times more sensitive to detail than the peripheral retina.

If you look at the drawing of the eye and the photograph of the retina you will note that there are dark and curving lines in the retina. These are the blood vessels of the retina. The blood vessels bring oxygen and nutrition to the retina. In order for the peripheral retina and macula to work properly, the blood vessels must be normal. Diabetic Retinopathy occurs when the retinal blood vessels become abnormal.



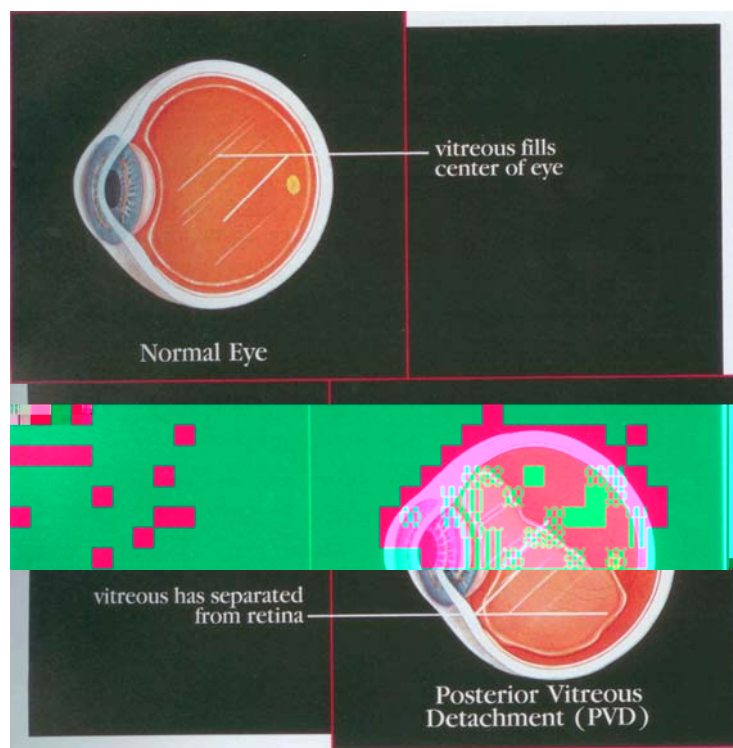
# RETINAL DETACHMENT AND VITREOUS SURGERY

## The Vitreous

Most serious retinal problems that require Surgery are caused by problems with the Vitreous. The Vitreous is much like the clear “white” of an egg and it fills the central cavity of the eye. The Vitreous is attached to the retina. It is most strongly attached to the retina at the sides of the eye. It is also attached in the back part of the eye to the optic nerve, the macula, and the large retinal blood vessels.

### Posterior Vitreous Detachment (PVD)

As a person ages, the thick Vitreous gel becomes less like a gel and more like a fluid. Small pockets of fluid form within the gel of the Vitreous. As the eyeball moves, the liquefied Vitreous moves around inside the Vitreous cavity. Because of this movement of fluid, the Vitreous begins to pull on the retina. With time, the Vitreous can pull free and separate from the retina and optic nerve in the back (or posterior) part of the eye. This is called a “posterior Vitreous detachment” (PVD). This kind of Detachment happens eventually in most people and only infrequently causes a problem.



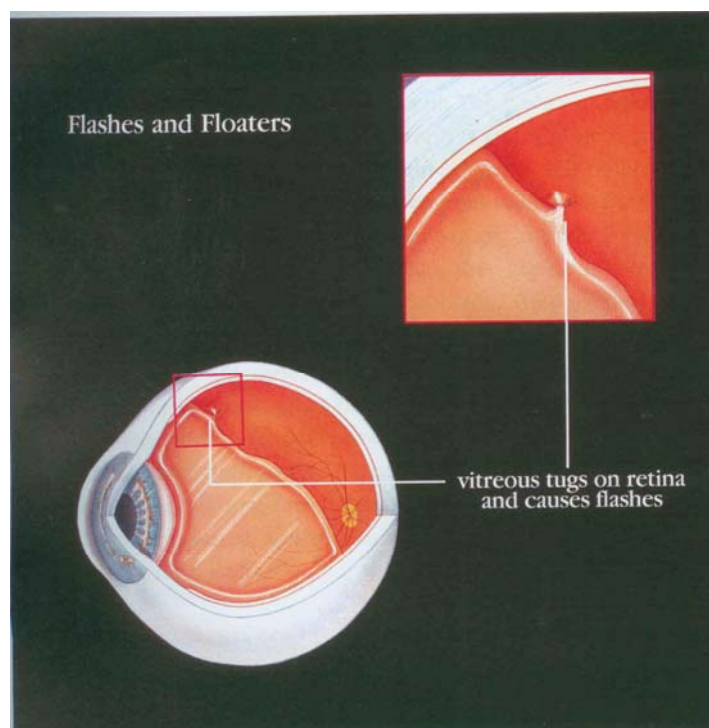
# RETINAL DETACHMENT AND VITREOUS SURGERY

## The Vitreous

### Flashes and Floaters

When a person develops a posterior Vitreous Detachment, flashes of light or large spots in the vision may occur. The flashes of light are caused by the tugging of the Vitreous where it is attached to the retina. As the Vitreous pulls on the retina, the brain interprets this pulling as flashes of light. As it liquefies and pulls away from the retina, the Vitreous becomes somewhat condensed and stringy and forms strands. The patient can see these strands and strings; they appear as spots, small circles, or irregular fine threads in the vision. They seem to float and are therefore called “floaters”

Vitreous changes are most commonly caused by aging, but they can also be caused by previous inflammation in the eye, nearsightedness, trauma, or other causes. If a Patient has floaters; he or she should be examined to be sure there are no other serious retinal problems (such as a retinal tear or a retinal detachment). If there are no problems, the patient can feel reassured, and will learn to ignore the floaters. There is no treatment for floaters.



# RETINAL DETACHMENT AND VITREOUS SURGERY

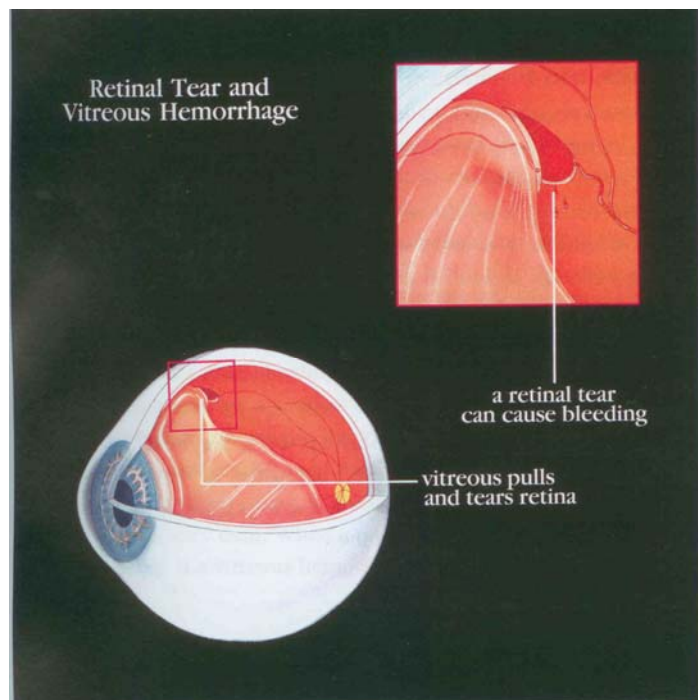
## Retinal Tear and Vitreous Hemorrhage

There may be areas where the Vitreous is very strongly attached to the retina. If the Vitreous pulls away from the retina in an area where the retina is weak, the retina may tear. One condition that weakens the retina is called lattice degeneration. When lattice degeneration is present, it indicates that the retina is thin and may be more susceptible to a tear of the retina than in an area without lattice degeneration. A tear of the retina works very much the same way. If the vitreous is firmly attached, as it pulls away, it can tear the retina. If the retina tears across a retinal blood vessel, there will be bleeding into the Vitreous. This is called a vitreous hemorrhage.

When there is a little bleeding, red blood cells floating and moving in the Vitreous create the sensation of walking through a swarm of flies. If even more bleeding occurs in the Vitreous, it looks like a spiderweb or a swirling mass of black or red lines. If there is a great deal of bleeding into the Vitreous cavity, vision may be reduced significantly, or even become very dark. When a retinal tear occurs, it is a potentially serious problem. If a Vitreous hemorrhage also occurs, it is even more serious.

The retina can tear immediately following a posterior Vitreous Detachment (PVD), or weeks later. If no tear has developed within eight weeks after a PVD, the retina probably will not tear.

Any patient, who experiences sudden or new floaters, or flashing lights of any kind, should have a complete retinal examination immediately. These symptoms may indicate that a retinal tear has occurred. A retinal tear may result in a retinal Detachment. Since retinal tears and retinal Detachments begin in the peripheral retina, your doctor may suggest that you test your peripheral vision to be sure there are no changes.

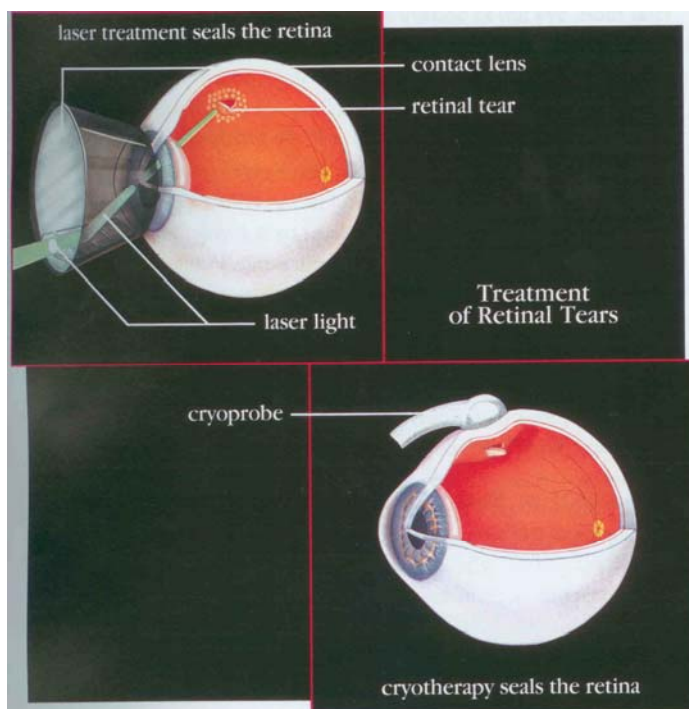


## Retinal Tear and Vitreous Hemorrhage

### Treatment of Retinal Tear

If a tear of the retina has occurred, laser treatment or cryotherapy, or both, may be used to seal the retinal tear in order to prevent a retinal detachment from occurring. The laser is a beam of light that turns to heat when it hits the retina. The laser light is directed through a special contact lens. Cryotherapy (also called “cryo”) is a means of freezing the part of the retina that needs to be treated. This is done with a cryoprobe which is placed on the outside of the eye. Both laser treatment and cryotherapy seal the retina to the back wall of the eye by forming a scar. This scar, which takes approximately 10 days to heal, forms a bond which seals the retina around the retinal tear and prevents a Detachment.

Both laser surgery and cryotherapy are done one an outpatient basis. Patients may return to full activity, without restrictions, in a short period of time. Vision may be blurred for several days following laser or cryotherapy. If cryotherapy is used to treat the retinal tear, the eye may be red for several weeks.

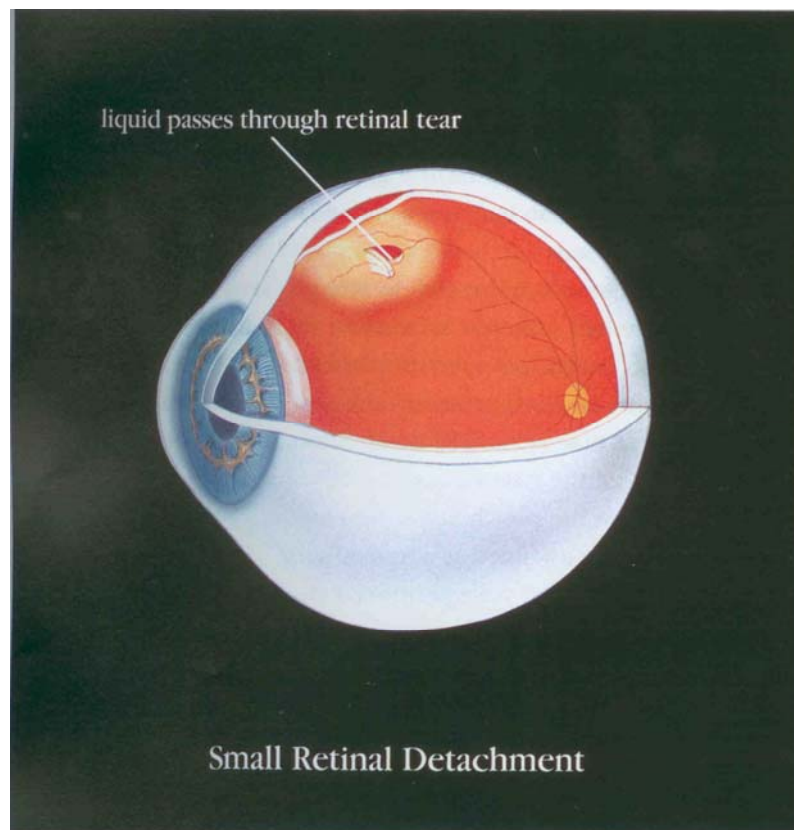




# RETINAL DETACHMENT AND VITREOUS SURGERY

## Retinal Detachment

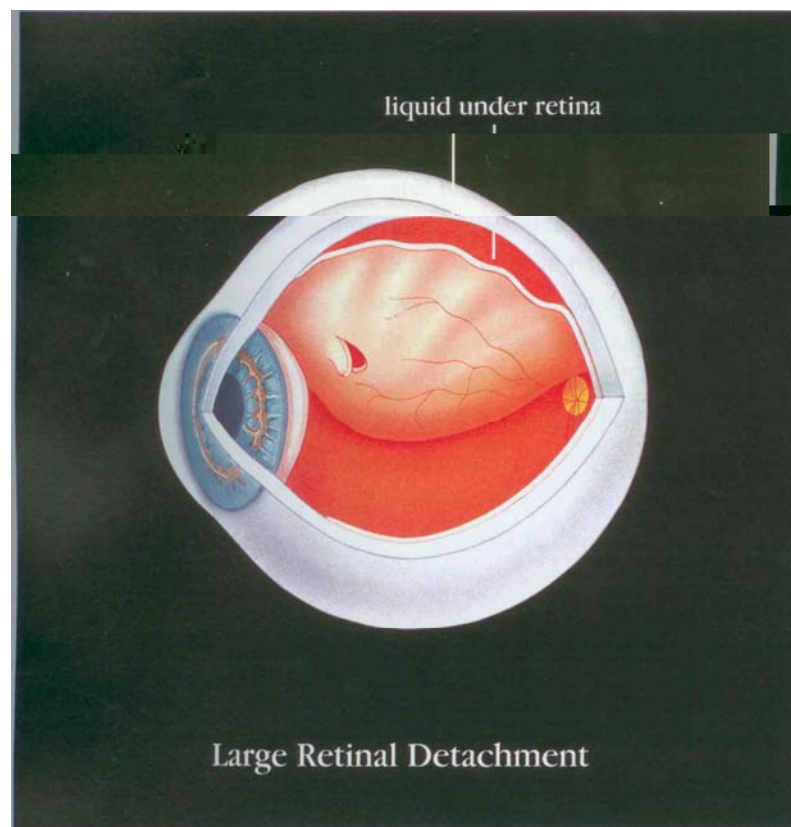
Why a retinal tear is considered a serious problem? When a tear of the retina occurs, the liquid in the Vitreous cavity may pass through the tear and get under the retina. The liquid collects under the retina and lifts it up off the back wall of the eye. Little by little, the liquid from the Vitreous passes through the retinal tear and settles under the retina, separating it from the back wall of the eye. This separation of the retina is called a retinal Detachment. Vision is lost wherever the retina becomes detached. Because most tears are located in the peripheral (or side of the) retina, the retinal detachment first results in loss of side, or peripheral, vision. A patient may notice a dark shadow, or a veil, coming from one side, above, or below. In most cases, after a retinal Detachment starts, the entire retina will eventually detach and all useful vision in that eye will be lost.



# RETINAL DETACHMENT AND VITREOUS SURGERY

## Retinal Detachment

Each year approximately one out of 10,000 people develops a retinal detachment. Certain people have a greater chance of getting a retinal detachment than others: those with a high degree of nearsightedness, a family history of retinal detachment, or those who once had a retinal detachment in the other eye. Patients who have thinning of the retina (termed “lattice degeneration”) or other degenerative changes of the retina are also at increased risk. Patients who have had cataract surgery have about a 1% to 2% chance of developing a retinal detachment.



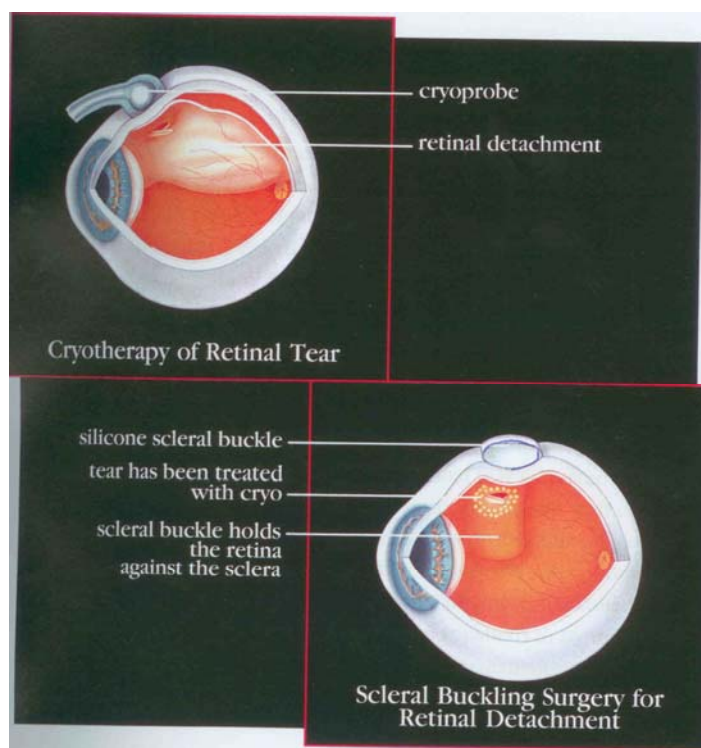


# RETINAL DETACHMENT AND VITREOUS SURGERY

## Scleral Buckling Surgery for Retinal Detachment

If the retina has become detached and the detachment is too large for laser treatment or cryotherapy alone, surgery is necessary to “reattach” the retina. Without some type of retinal reattachment surgery, vision will almost always be completely lost. There are two types of surgery for retinal Detachment; one is called scleral buckling surgery and the other is called pneumatic retinopexy.

The traditional surgery for retinal detachment is scleral buckling surgery. This surgery is generally performed in the operating room under general anesthesia but, in some cases, may be performed under local anesthesia. The surgeon first treats the retinal tear with cryotherapy. A cryoprobe is placed on the outside part of the eye (the sclera) as the surgeon looks into the eye. The surgeon then places the cryoprobe in the correct position and the retinal tear is treated. A piece of silicone plastic or sponge is then sewn onto the outside wall of the eye (sclera) over the site of the retinal tear. This pushes the sclera in toward the retinal tear and holds the retina against the sclera until scarring from the cryotherapy seals the tear. This surgery is called scleral buckling because the sclera is buckled (pushed) in by the silicone. The silicone buckle is left on the eye permanently.

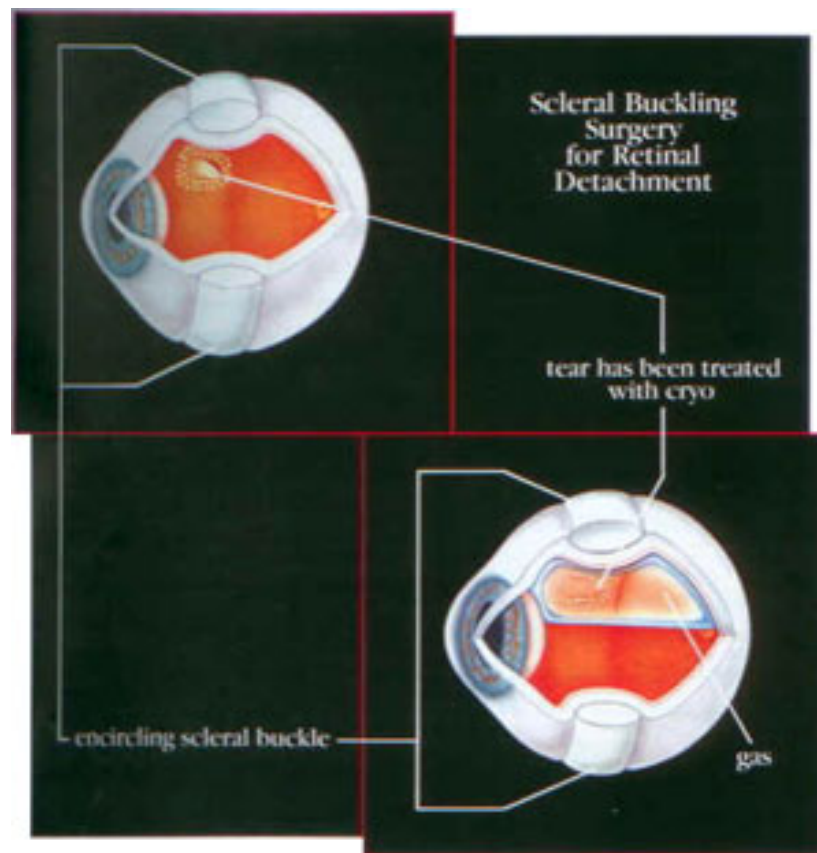


# RETINAL DETACHMENT AND VITREOUS SURGERY

## Scleral Buckling Surgery for Retinal Detachment

The silicone may also be placed all around the outside circumference of the eye. This is called an encircling scleral buckle or band. The purpose of the encircling scleral buckle is to lessen the pulling of the vitreous on the retina. During the surgery, the surgeon may drain the fluid from beneath the retina by making a tiny slit in the sclera, and then making a small puncture into the space under the retina. The fluid under the retina then drains out through the slit in the sclera.

Occasionally, the surgeon may place a gas bubble into the Vitreous cavity. When the surgery is over, the patient is positioned so that the gas bubble rises and pushes the retinal tear against the scleral buckle to help keep the tear closed.



## Scleral Buckling Surgery for Retinal Detachment

In most cases, there is a better than 80% chance of successfully reattaching the retina with one operation. But successful reattachment does not necessarily mean restored vision. The return of good vision after the surgery depends on whether, and for how long, the macula was detached prior to surgery. If the Macula was detached, vision rarely returns to normal. Still, if the retina is successfully reattached, vision usually improves. The best vision may not occur for many months after surgery. In some cases, even if the macula was still attached before the surgery, and even if the surgery results in successful reattachment of the retina, some vision may be lost. If the first retinal detachment operation fails, a second operation is usually possible.

Postoperative period: following surgery, the eye will be red and slightly sore for a month or two. Patients often feel a scratchy sensation produced by the stitches used to close the lining around the eye. Severe pain is uncommon; if it occurs, the surgeon should be told immediately. The eye will water for several weeks, and the patient may find it more comfortable to wear a patch on the operated eye. Usually, several medicines given as eye drops must be taken after the surgery. These should be continued until the surgeon asks the patient to stop. These drops are used to prevent infection and to help make the eye feel more comfortable. In most cases, the patient may leave the hospital within a day or two of the surgery, or even the day of the surgery. Each surgeon handles treatment differently, and each case is unique.

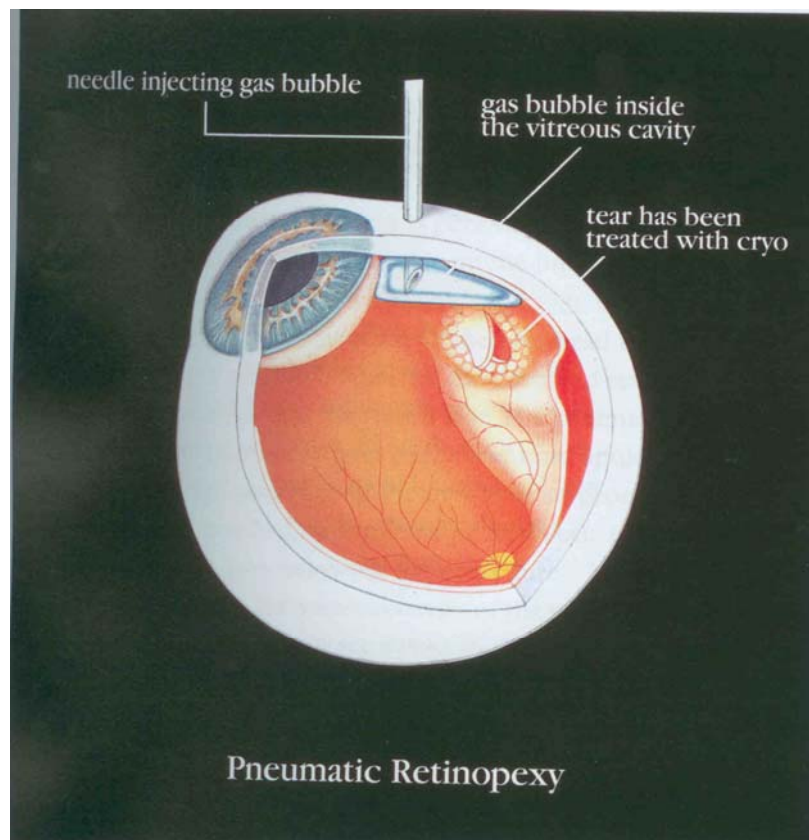
Following the surgery, vision will be blurry; it may take many weeks for the vision to improve. During this period the main concern is that the retina remains attached. Many surgeons ask their patients to restrict their physical activity for several weeks.

# RETINAL DETACHMENT AND VITREOUS SURGERY

## Pneumatic Retinopexy

Another type of surgery that can be done for retinal detachment is called “pneumatic retinopexy.” Pneumatic retinopexy is performed on an outpatient basis. Local anesthesia, rather than general anesthesia, is used.

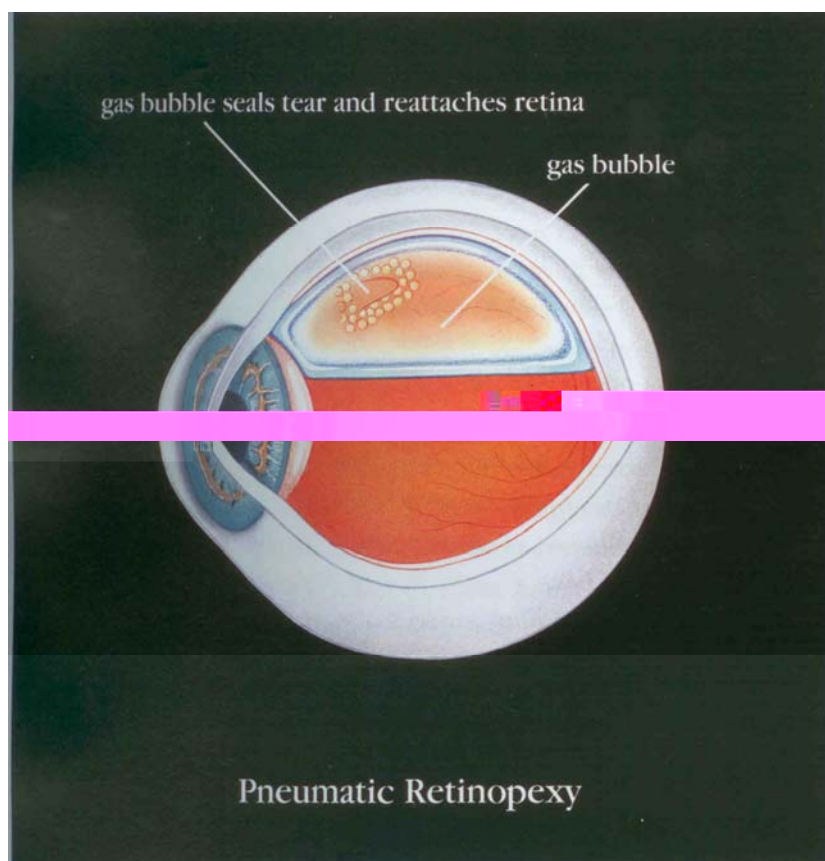
Cryotherapy or laser treatment is performed to seal the retinal tear: Instead of placing a scleral buckle on the outside of the eye, the surgeon, using a needle, injects a gas bubble inside the Vitreous cavity of the eye. The patient is instructed to keep his head in a specific position so that the gas bubble pushes the detached retina against the back wall of the eye to seal the retinal tear. The patient is asked to remain in this position for various periods of time until the retinal tear is sealed against the back wall of the eye. Your surgeon will tell you how long special positioning is necessary. Antibiotic eye drops may be used during the days following the procedure.



# RETINAL DETACHMENT AND VITREOUS SURGERY

## Pneumatic Retinopexy

The gas bubble in the vitreous cavity of the eye expands for several days and takes two to six weeks to disappear: During this time, airplane travel or travel to a high altitude must be avoided because high altitudes can result in an expansion of gas and an increase in pressure that can damage the eye. Your surgeon will tell you when it is safe to travel.



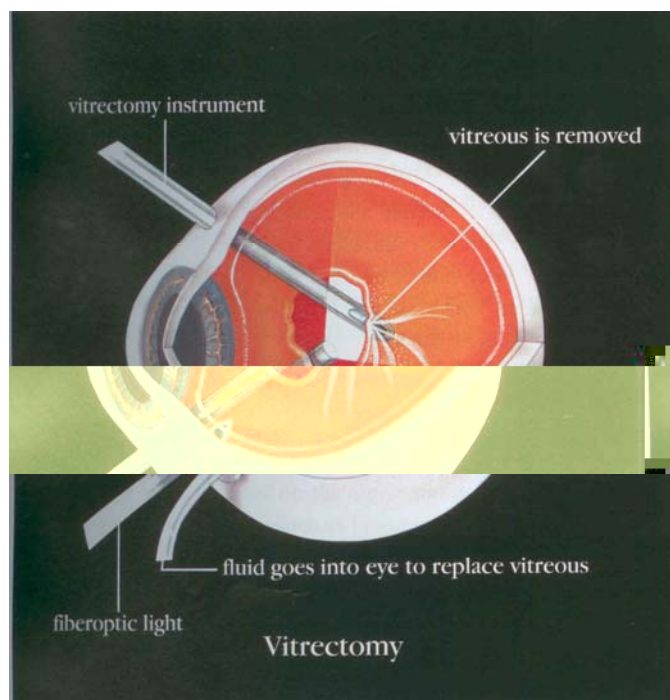


# RETINAL DETACHMENT AND VITREOUS SURGERY

## Vitreous Surgery (Vitrectomy)

Occasionally, a retinal detachment is so complicated and severe that it cannot be treated with either standard scleral buckling surgery or pneumatic retinopexy. In such cases, vitreous surgery to reattach the retina may be necessary. The vitreous is removed and, therefore, this procedure is called “Vitrectomy.” The surgeon uses a fiberoptic light to illuminate the inside of the eye and other instruments inside the eye, such as forceps, and scissors, to do the surgery. The vitreous is replaced during the operation with either clear fluid that is compatible with the eye, or with air that completely fills the eye. Over time, this fluid (or air) is absorbed by the eye and is replaced by the eye’s own fluid; the eye does not replace the vitreous itself. The lack of vitreous does not affect the functioning of the eye.

Vitrectomy is required for retinal reattachment in a variety of conditions. For example, scar tissue may grow on the vitreous or surface of the retina and pull on the retina and detach it. Occasionally, something is in the vitreous, such as blood, that prevents the passage of light through the eye to the retina. The most common conditions requiring Vitrectomy are vitreous hemorrhage with retinal detachment, proliferative vitreoretinopathy, giant retinal tears, diabetic retinopathy with vitreous hemorrhage and/ or traction retinal detachment, epiretinal membranes (macular pucker), intraocular infection (Endophthalmitis), trauma, and intraocular foreign body. Each of these conditions will be discussed in the following sections.

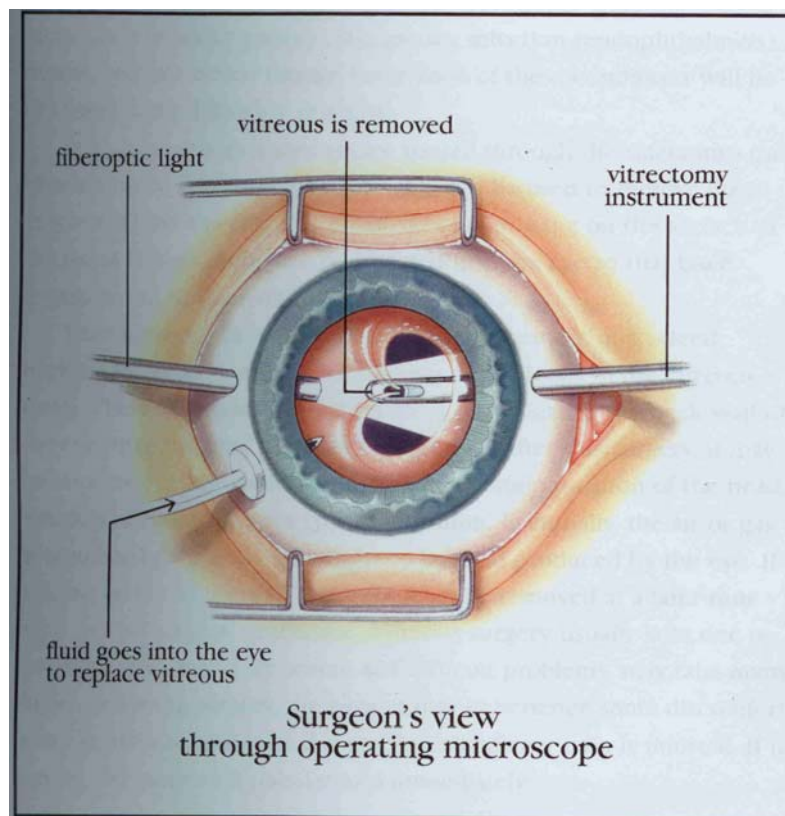


# RETINAL DETACHMENT AND VITREOUS SURGERY

## Vitreous Surgery (Vitrectomy)

In a Vitrectomy, instruments are passed through the sclera into the vitreous cavity. A variety of instruments can be used to remove the vitreous gel and any scar tissue that may be growing on the surface of the retina. A laser probe can be inserted into the eye so that laser treatment can be done during surgery.

Vitrectomy can be combined with the placement of a scleral buckle. Occasionally, air, gas, or silicone oil is placed in the vitreous cavity. These materials hold the retina in place against the back wall of the eye while the laser scars are taking hold. After this surgery, it may be important for the patient to maintain a certain position of the head, which is often a face-down (prone) position. Eventually, the air or gas is absorbed by the body and replaced by fluid produced by the eye. If silicone oil has been used, it usually must be removed at a later time with another surgical procedure.

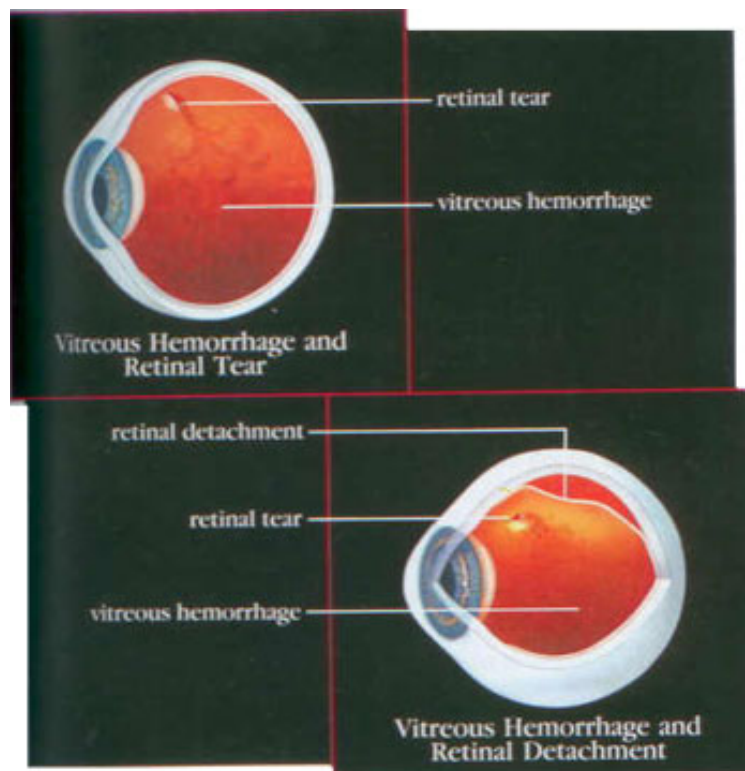


# RETINAL DETACHMENT AND VITREOUS SURGERY

## Vitreous Hemorrhage and Retinal detachment

When a retinal tear occurs, retinal blood vessels may also be torn. When this happens, blood spills into the vitreous cavity; this is called a vitreous hemorrhage. Because there is a tear in the retina, a retinal detachment may also occur. The combination of a vitreous hemorrhage and retinal detachment is difficult to treat because the hemorrhage prevents the surgeon from seeing the retina and finding the hole. In such a case, a special technique called ultrasonography is necessary to help make the diagnosis of retinal detachment beneath the hemorrhage.

If a patient has a combined vitreous hemorrhage and retinal detachment, a Vitrectomy must be performed to remove the blood so that the surgeon can see the retina. Also, a scleral buckle is placed around the eye. Because of the combination of retinal detachment and vitreous hemorrhage, the eye is at high risk for developing proliferative vitreoretinopathy

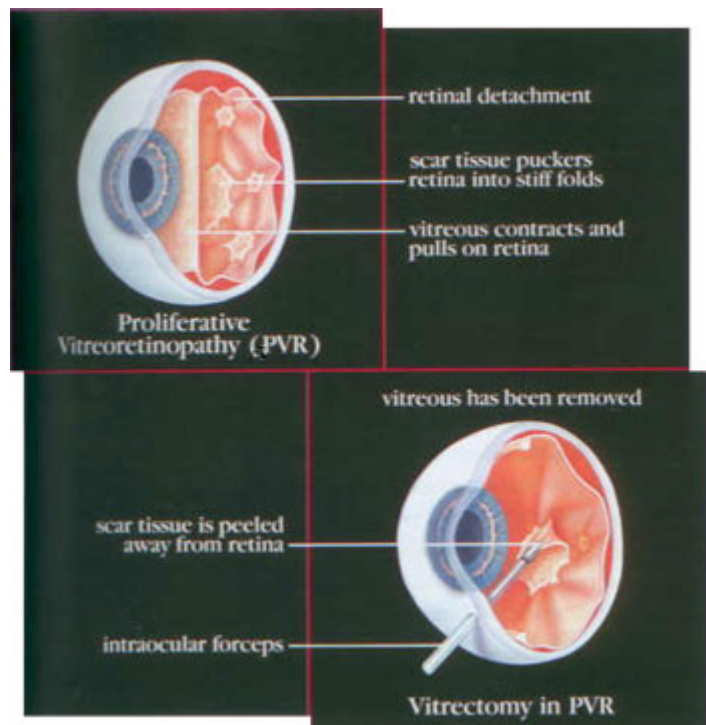


# RETINAL DETACHMENT AND VITREOUS SURGERY

## Proliferative Vitreoretinopathy (PVR)

Scleral buckling surgery fails approximately 5% to 10% of the time because excessive scar tissue grows on the surface of the retina. This scar tissue is very bad for the eye. It pulls on the retina, causing it to redetach. Retinal redetachment usually occurs four to eight weeks after the initial surgery. The scar tissue also puckers the retina into stiff folds, like wrinkled aluminum foil. The vitreous also pulls on the retina, detaching it from the back wall of the eye. This condition is called proliferative vitreoretinopathy (PVR). The only way to unfold and reattach the retina is to cut away the vitreous and remove the scar tissue with Vitrectomy surgery and then reattach the retina. The lens of the eye almost always has to be removed during the surgery. If an intraocular lens implant is in the eye, it can usually be left alone.

Removing the vitreous and especially the scar tissue from the surface of the retina is a delicate process that requires the surgeon to lift and peel strands of scar tissue away from the retina. After the vitreous and the scar tissue are removed, an encircling scleral buckle is placed around the eye. The eye is then filled with air so that the retina is pushed against the back wall of the eye and against the scleral buckle. Once the retina is in place, laser is used to seal the retinal tears, and to form a strong attachment between the retina and the back wall of the eye. At this point, the surgeon will replace the air with a long-acting gas. The gas remains in the eye for many weeks before it is naturally absorbed. The vision is always very poor when air or gas is in the eye. The gas keeps the retina pushed up against the eye wall long enough for the laser burns to heal and take hold. In some cases, the same effect is achieved with clear silicone oil that is placed into the eye. If oil is placed into the eye, it is usually removed at a later time. Following surgery, it may sometimes be necessary for the patient's head to be positioned in such a way as to help the gas seal the retinal tears. In some cases, extra injections of gas may be required after the surgery.

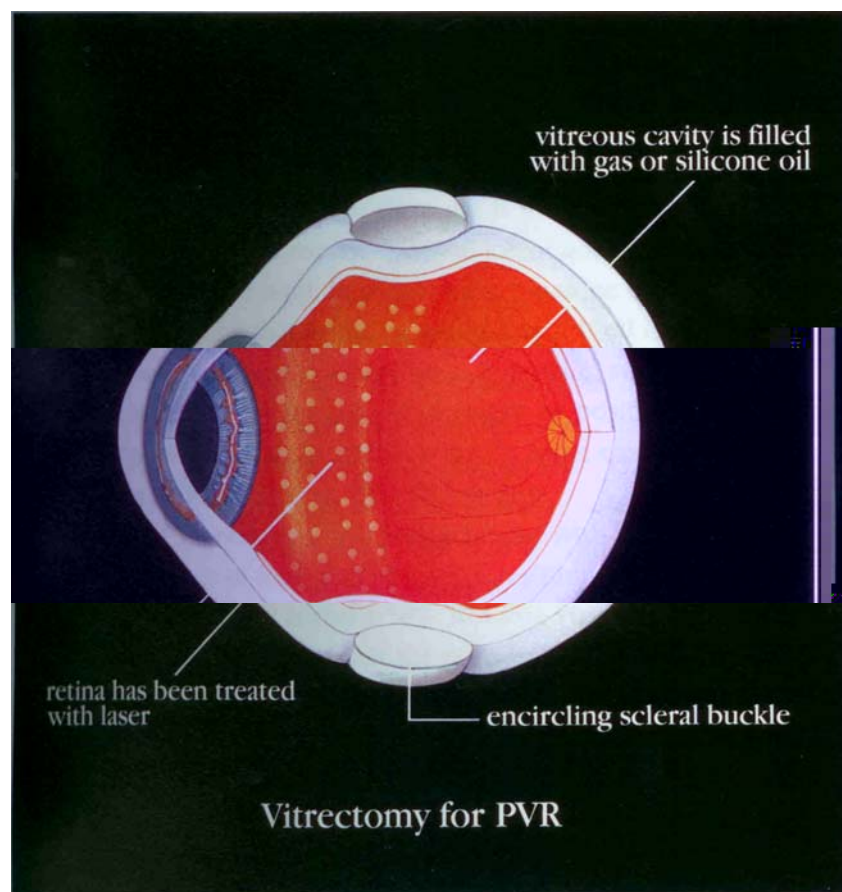




# RETINAL DETACHMENT AND VITREOUS SURGERY

## Proliferative Vitreoretinopathy (PVR)

The chance of successful retinal reattachment with Vitrectomy for PVR is about three out of four. The chance of regaining well enough vision just to get around is about 50%. Reading vision rarely returns. It should be clearly understood that the purpose of PVR surgery is to give the patient an eye that would have some vision and could serve as a “spare tire,” if the other eye ever loses vision entirely.





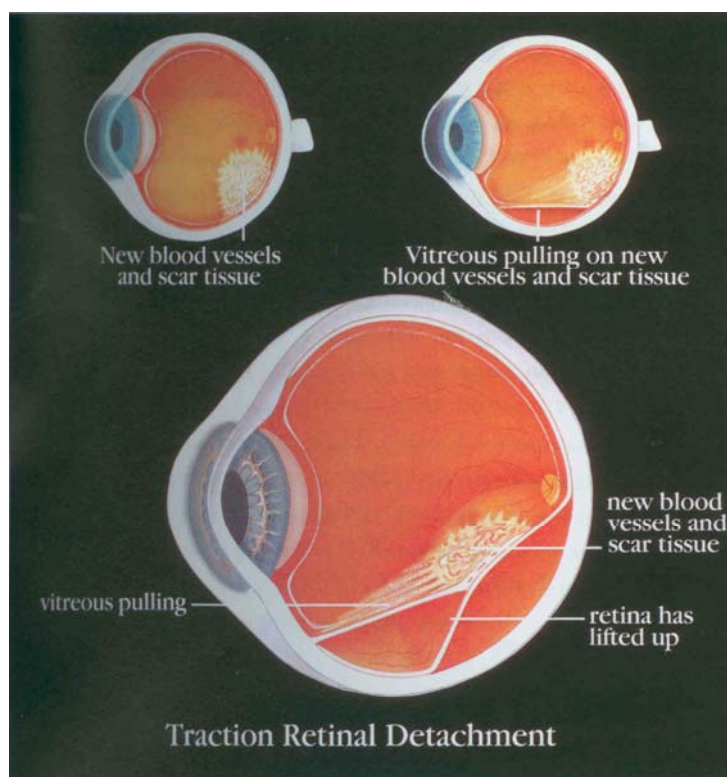
# RETINAL DETACHMENT AND VITREOUS SURGERY

## Diabetic Retinopathy

In proliferative diabetic retinopathy (PDR), abnormal blood vessels and scar tissue grow on the surface of the retina and also attach firmly to the back surface of the vitreous. The vitreous then pulls on the scar tissue and can cause the blood vessels to bleed into the vitreous cavity (called vitreous hemorrhage). This can cause immediate and severe visual loss. Often, the hemorrhage will clear by itself. If it doesn't clear, a Vitrectomy can be performed to remove the blood-filled vitreous.

When the vitreous pulls on the scar tissue, it can detach the retina. This is called a "traction retinal detachment." When the detachment involves the macula, central vision is lost. Also, scar tissue may wrinkle the retina and cause visual loss.

The patient can regain some vision only if the scar tissue is removed from the surface of the retina and the retina is reattached. This is accomplished by Vitrectomy. The surgeon removes the vitreous and scar tissue from the surface of the retina so that they stop pulling on the retina, thereby releasing the traction. Removal of the scar tissue also reduces or eliminates wrinkling of the retina.

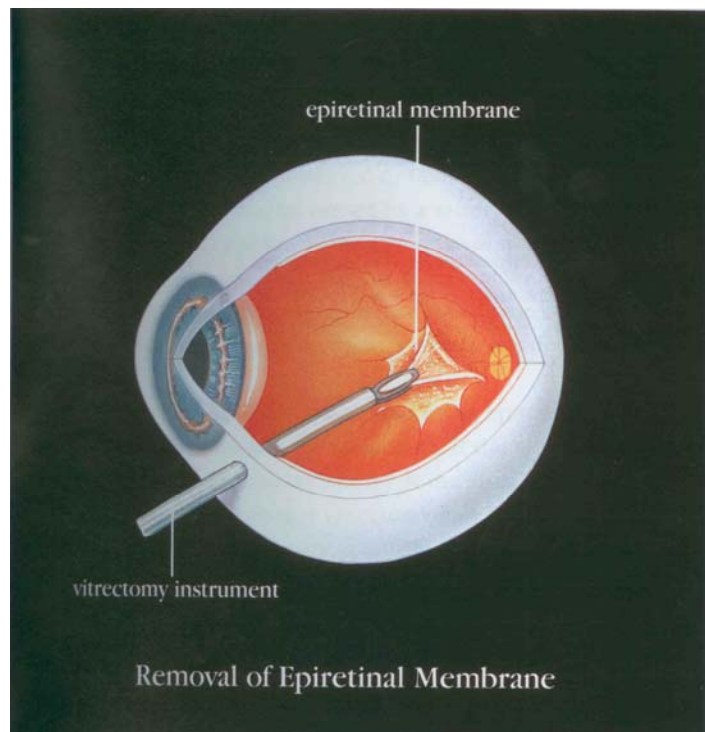


## Epiretinal Membrane (Macular Pucker)

Scar tissue can grow on the surface of the retina, directly over the macula. This scar tissue can contract, and cause the retina to wrinkle. The scar tissue on the surface of the retina is called an “epiretinal membrane” or “macular pucker.” An epiretinal membrane can cause visual loss, as well as distorted or double vision.

Epiretinal membranes may be caused by a variety of eye problems. They may follow retinal detachment surgery or laser treatment or cryotherapy for retinal tears. They may be associated with retinal blood vessel problems. In most cases, the epiretinal membrane occurs in an otherwise healthy eye as a result of a posterior vitreous detachment

The only treatment for visual loss caused by an epiretinal membrane is surgery to remove the membrane. If the vision is only mildly reduced, it is best not to do surgery. If the visual loss or distortion is significant, however, a Vitrectomy may be performed to remove the membrane.



Vision usually improves slowly after surgery, with most of the improvement coming within the first three months, though it may continue to improve for many months. In some cases, the vision may not improve at all. The chance that vision will improve following surgery is about 75%. On an average, patients regain approximately half of the vision that was lost because of the epiretinal membrane.

## **Introcular Infection: Endophthalmitis**

When an infection occurs inside the eye, it is called “Endophthalmitis”. This is a very serious problem and often results in loss of all vision or even the eye. Endophthalmitis usually occurs after intraocular surgery (surgery done inside the eye) or penetrating trauma. Endophthalmitis may be treated with antibiotics which are given intravenously, as eyedrops, as injections around the outside wall of the eye, or injections into the eye.

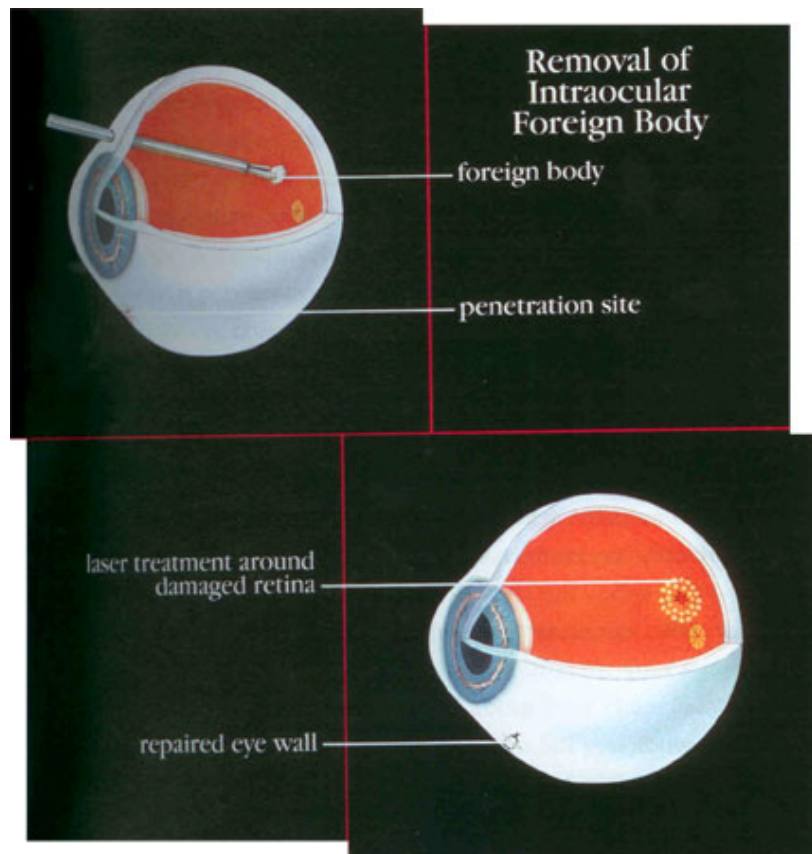
# RETINAL DETACHMENT AND VITREOUS SURGERY

## TRAUMA AND INTRAOCULAR FOREIGN BODY

Traumatic injuries to the eye can lead to severe retinal problems. A direct blow to the eye may cause vitreous hemorrhage and/or retinal detachment. Pieces of metal, or other materials, called “intraocular foreign bodies,” may penetrate the sclera and cause retinal detachment, vitreous hemorrhage, or severe infection in the eye. Even if they don’t cause immediate problems, certain metallic foreign bodies may be toxic and can eventually destroy the eye if they remain in place. If the eye is penetrated by a sharp object, scar tissue can form along the track of the object, as well as on the retinal surface. The scar tissue can pull on and detach the retina (traction retinal detachment).

In cases where trauma has caused retinal problems, Vitrectomy may save vision. In some cases, the goal is to remove the intraocular foreign body or blood (vitreous hemorrhage) and repair the damage to the retina with laser or cryo. In other cases, Vitrectomy removes scar tissue from the surface of the retina, or prevents traction retinal detachment from occurring.

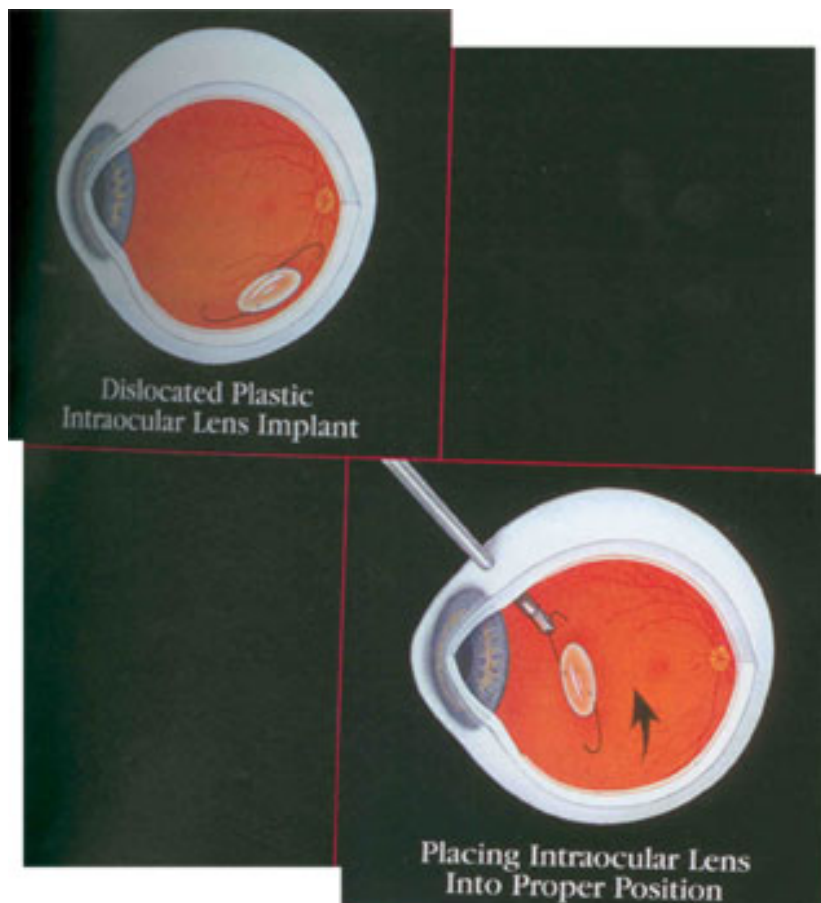
The timing of the surgery, and the specific techniques used, will depend on the type of trauma that the eye has suffered. Your surgeon will counsel you about this and talk to you about your chances of saving the eye and vision. Your surgeon will also tell you about the complications of this surgery, the most important of which are loss of all vision and even the eye.



## Dislocated Lens

Occasionally, during cataract surgery, the natural lens of the eye (which is the cataract), or a portion of the lens, falls into the vitreous cavity. This may cause inflammation in the eye which can cause the normal pressure in the eye to rise to dangerous levels. The dislocated lens can be removed by Vitrectomy surgery.

Another problem that can occur during or after cataract surgery is the dislocation of the plastic lens implant, the intraocular lens (IOL); the intraocular lens can fall into the vitreous cavity. This can also occur following trauma to the eye. Vitreous surgery can be done to place the plastic intraocular lens in its proper position. The vitreous is removed and then the lens is grasped with forceps and placed into position where it may be sutured in order to keep it stable.



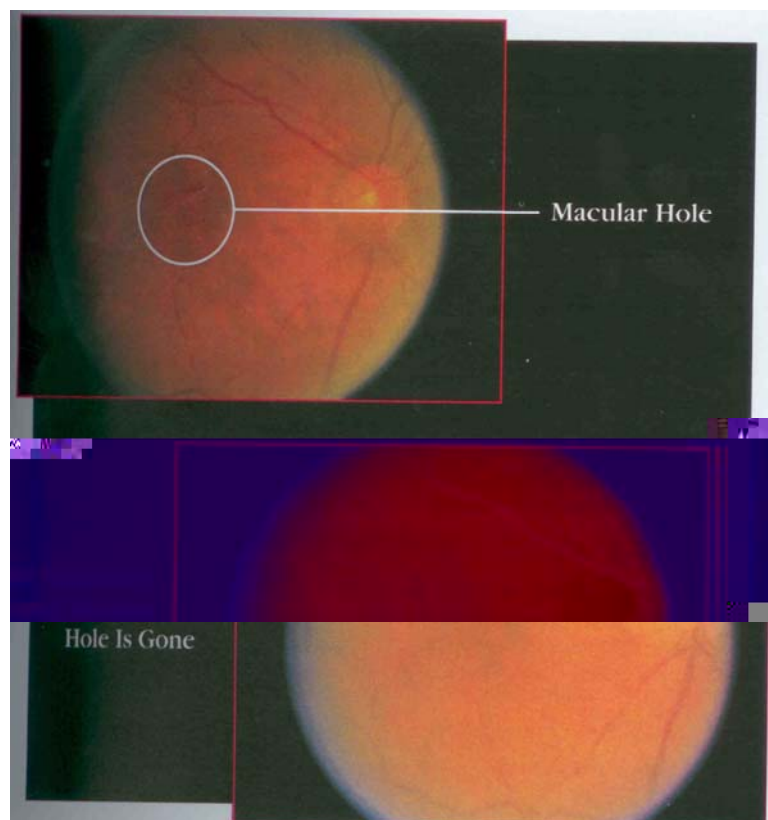


## Macular Hole

Sometimes a retinal hole develops in the center of the macula. This is called a “Macular hole” and is caused by vitreous traction. The vitreous overlying the macula may first contract and pull up the center of the macula. When this happens, the patient may notice slight distortion or a reduction in vision. As the vitreous continues to pull, the macula may develop a tiny hole. With time, this hole may become larger. When a macular hole occurs, central or detail vision is lost.

When a patient develops a Macular hole in one eye, there is about a 10% chance that a Macular hole will develop in the other eye.

Once a Macular hole develops, Vitrectomy surgery may improve the vision. The vitreous is removed and a gas is placed in the eye that helps the macula to remain in place and the hole to heal. Following the surgery, the patient is required to remain in a face-down position for seven to ten days.



Not all patients with a macular hole will see better following the surgery. Your doctor will discuss with you the indications for and complications of the surgery. The complications are very much the same as for any vitreous surgery

# RETINAL DETACHMENT AND VITREOUS SURGERY

**Q. If I see floaters and flashing lights, do I need to see my eye doctor?**

**A.** Flashes and floaters are sometimes important signs that a retinal problem such as a retinal tear or detachment is present. Although flashes and floaters may not be serious, a retinal examination must be performed to be sure.

**Q. What is the purpose of retinal detachment surgery?**

**A.** When the retina is detached, it cannot work and vision is lost. The purpose of the surgery for retinal detachment is to reattach the retina. If the surgery is

## Questions and Answers

### **Q. How long will be vitreous or retinal surgery take?**

**A.** The length of the surgery depends on the type of problem you have. If you have an epiretinal membrane or uncomplicated retinal detachment, surgery may take less than an hour. However, if the eye needs to have the lens removed, a scleral buckle placed, and scar tissue removed from the eye, the surgery could take many hours.

### **Q. What are the possible complications of Vitrectomy surgery?**

**A.** There are risks to any surgery. The risks must be outweighed by the benefits if surgery is to be performed. The risks include the development of a tear in the retina, cataract, and glaucoma, double vision, bleeding into the eye, infection or re-detachment of the retina. Any one of these complications may result in severe loss of vision, or even the loss of the eye itself.

### **Q. Will my eye hurt after surgery?**

**A.** You may note some discomfort around the eye, but severe pain is unusual. Discomfort can be relieved with medication if necessary. Your eye will remain swollen, red, somewhat tender, and uncomfortable for several weeks. You may also notice a scratchy, foreign body sensation when opening or closing the eye. This is caused by small stitches on the outside of the eye. These stitches will gradually become soft and fall out, probably within two weeks.

### **Q. What instructions must I follow when I go home after surgery?**

**A.** The amount of physical activity that is allowed depends on the type of surgery that you have had. Your surgeon will discuss with you any restrictions. You will be asked to use some eye medications when you go home. The purpose of the drops is to prevent infection and make the eye more comfortable as it heals.

## Questions and Answers

### **Q. Will I see better right after surgery?**

**A.** The vision following surgery depends on the type of surgery that you have had. In general, it takes a long time for you to reach your best vision. The vision in the eye will almost certainly be blurry for many weeks. Your surgeon will discuss with you the chances of visual recovery following your surgery and how much vision you can hope to regain. It is important to realize that recovery of vision following any type of retinal or vitreous surgery takes a long time.

### **Q. Why is postoperative head positioning important and how long must it continue?**

**A.** Patients are asked to position themselves after surgery (usually face down) if they have air, gas, or silicone oil in their eye. These materials rise to the highest point in the eye. If there have been retinal tears that have received laser or cryotherapy during surgery, the air, gas, or oil can help keep the tear closed, and the retina attached, while the laser or cryotherapy takes hold. Occasionally, head positioning is used to allow blood in the eye to settle away from the macula.