LASER THERAPY

Performed in office, your surgeon directs a laser beam through a special contact lens to create tiny burns around the tear. As healing takes place, it forms a water-tight seal which can help prevent a complete detachment. It does not require a surgical incision and irritation is minimal.

A special contact lens is used to focus the laser that is used to seal tears in the retina.

FREEZING (CRYO) THERAPY

When tears are difficult to visualize or reach, or when fluid has already begun to seep under the retina, your doctor may opt for a freezing therapy called **cryopexy**. After anesthetizing your eye, your doctor will place a freezing probe to seal the defect. Your eye may be red or swollen for a few days afterwards.

PNEUMATIC RETINOPEXY

After laser or cryotherapy, a gas bubble is injected into the eye to act as a brace in order to re-attach the retina.

SCLERAL BUCKLE

This surgery is performed in the operating room. A silicone band is placed around the outside of the eye to provide permanent, external support.

VITRECTOMY SURGERY

This surgery is performed in the operating room. Tiny instruments are used to remove the vitreous gel, re-attach the retina and seal off all retinal tears with laser or cryotherapy. A gas or silicone oil bubble is placed in the eye to keep the retina flat as it heals. If gas is used, the eye will refill itself with clear fluid as the gas bubble dissipates over the course of a few weeks. If silicone oil is used, it may need to be removed surgically once the retina is stable.

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Possible symptoms of a retinal detachment

- Flashes of light
- Floaters (like cobwebs or spots in your field of vision)
- Curtain or shadow in your field of vision
- Blurry vision

Normal view

View with retinal detachment

Retina Consultants of Texas RCA Research

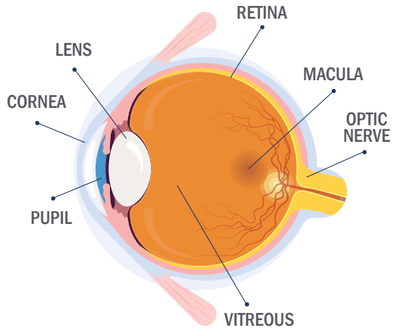
Retina Consultants of Texas RCA Research

RETINAL TEAR & DETACHMENT

What is a retinal tear or detachment?

A **retinal tear** is a tear in the thin tissue in one of the layers in your eye—much like a rip in a cloth. Alone, it can cause blurry vision, but left untreated can lead to a complete **retinal detachment.** Retinal tears affect approximately one in 300 people; factors such as lattice degeneration, surgery, trauma, or family history can increase risk. **A retinal detachment is an emergency situation. The longer it goes untreated, the greater the risk of permanent vision loss.**

HEALTHY EYE



How a retinal detachment affects vision

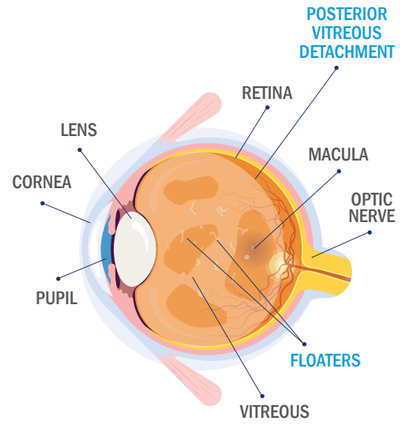
Light enters your eye and is detected by the **retina**, the light-sensing nerve tissue at the back of your eye. The information it receives is transmitted through the **optic nerve** to the brain, where it is interpreted as the images you see. Behind the lens is a clear, jelly-like substance called the **vitreous**, which helps the eye keep its shape during development.

When retinal tissue tears, or has detached from the back of your eye, it separates from the blood vessels that provide oxygen and nutrients, and can no longer transmit information to the brain properly.

POSTERIOR VITREOUS DETACHMENT

In a young, healthy eye, the vitreous is firmly in contact with the retina. As we age, the vitreous gel separates from the retina. This may occur earlier in people who are nearsighted or have had eye trauma or surgery. A **posterior vitreous detachment (PVD)** can cause preliminary tears or holes in the retina. These can progress and lead to what is called a **rhegmatogenous retinal detachment**.

AFFECTED EYE
Posterior Vitreous Detachment



TYPES OF RETINAL DETACHMENT

1. Rhegmatogenous retinal detachment

This is the most common type of retinal detachment. It can happen if you have a small tear or break in your retina, which allows the vitreous to get behind your retina. The vitreous then pushes your retina away from the back of your eye, causing it to detach.

Aging is the most common cause of rhegmatogenous retinal detachments. As you get older, the vitreous in your eye may shrink and change in texture. As it shrinks, the vitreous can pull on your retina and tear it.

Other things that can increase your risk of rhegmatogenous retinal detachment are eye injuries, eye surgery, and nearsightedness.

2. Tractional retinal detachment

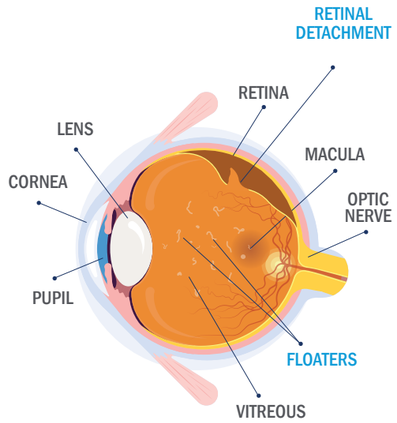
Tractional retinal detachment happens if scar tissue on your retina pulls your retina away from the back of your eye.

The most common cause is diabetic retinopathy — an eye condition in people with diabetes. Diabetic retinopathy damages blood vessels in the retina and can scar your retina. As the scars get bigger, they can pull on your retina and detach it from the back of your eye.

If you have diabetes, it's important to get a comprehensive dilated eye exam at least once a year. Managing your diabetes by staying physically active, eating healthy foods, and taking your medicine can also help you prevent or delay vision loss.

Other causes of tractional retinal detachment include eye diseases, eye infections, swelling in the eye and the development of scar tissue after eye surgery or trauma.

AFFECTED EYE
Retinal Detachment



Scan here to watch a video featuring our own Dr. Matthew Benz sharing helpful video in which he discusses PVD and retinal detachment

3. Exudative retinal detachment

Exudative retinal detachment happens when fluid builds up behind your retina, but there aren't any tears or breaks in your retina. If enough fluid gets trapped behind your retina, it can push your retina away from the back of your eye and cause it to detach.

The most common causes of exudative retinal detachment are leaking blood vessels or swelling in the back of the eye.

There are several things that can cause leaking blood vessels or swelling in your eye:

- Injury or trauma to your eye
- Age-related macular degeneration (AMD)
- Tumors in your eye
- Diseases that cause inflammation inside the eye
- Coats disease, a rare eye disorder

Examination and diagnostic testing

Your doctor may use a tool called an Amsler Grid as a starting point for diagnosis. If more information is needed, they may use more advanced tests including **hi-resolution color photography**, **ultrasound** or **optical coherence tomography (OCT)**.

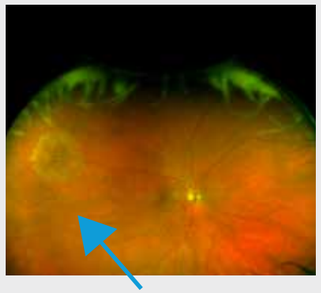
Treating retinal tears and detachments

In most cases, a retinal tear or detachment is considered an emergency that requires prompt evaluation and treatment. There are various methods of treament. Your physician will discuss the best approach for you. For some, decreased activity and specific head positioning may be required so that the retina can properly heal.

THE LONGER A RETINAL TEAR GOES UNTREATED, THE GREATER THE RISK OF PERMANENT VISION LOSS. IF YOU EXPERIENCE SIGNIFICANT CHANGES IN YOUR VISION, SEEK MEDICAL ATTENTION PROMPTLY.

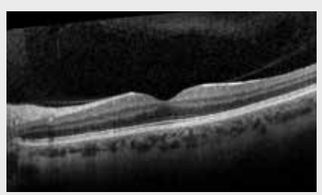
WHAT YOUR DOCTOR SEES WITH FUNDUS PHOTOS

Retinal tear before laser treatment



Retinal tear after laser treatment

WHAT YOUR DOCTOR SEES ON OCT



Normal retina

Detached retina