

What is a Retinal Tear?

Retinal tears can commonly occur when there is traction on the retina by the vitreous gel inside the eye. In a child's eye, the vitreous is firmly attached to certain areas of the retina. Over time, the vitreous gradually becomes thinner, more liquid and separates from the retina. This is known as a posterior vitreous detachment (PVD). PVD is typically harmless and can cause floaters in the eye; but in some cases, the traction on the retina may create a tear. Retinal tears, if left untreated, can frequently lead to retinal detachments as fluid seeps underneath the retina, causing it to separate and detach.

What is a Retinal Detachment?

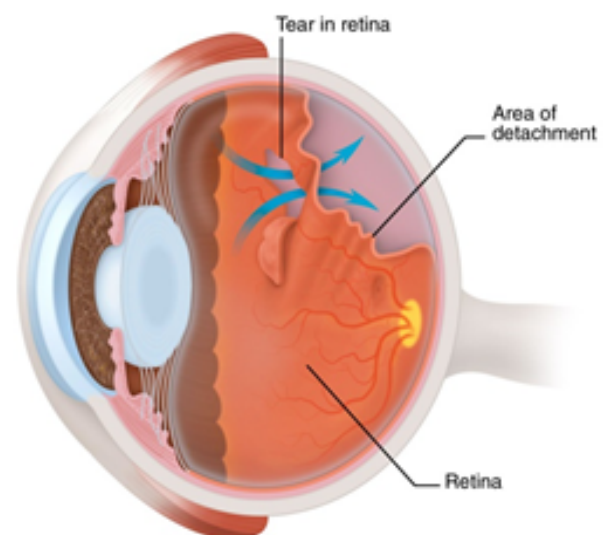
A retinal detachment (RD) occurs when the retina's sensory and pigment layers separate. Retinal detachments can cause devastating damage to vision if left untreated. Retinal detachments are considered an ocular emergency that requires immediate medical attention and either a procedure or surgery to repair.

Types of Detachments

- **Rhegmatogenous Retinal Detachment:** A break in the sensory layer of the retina allows fluid to seep underneath causing layers of the retina to separate. Patients most at risk include: those who are very nearsighted, have undergone surgery, or have had a serious eye injury.
- **Tractional Retinal Detachment:** Strands of vitreous or scar tissue create traction on the retina, pulling it loose. This type of detachment is most common in patients with advanced diabetic retinopathy.
- **Serous Retinal Detachment:** Fluid collects underneath the layers of the retina, causing it to separate from the back wall of the eye. This type of detachment usually occurs in conjunction with another disease affecting the eye that causes swelling or bleeding.

Signs and Symptoms of Retina Tears and Detachments

- Light Flashes
- "Wavy" or "watery" vision
- Veil or curtain obstructing vision
- Shower of floaters that resemble spots, bugs, or spider webs
- Sudden decrease of vision



Treatment

There are several ways to treat retinal tears and detachments. The appropriate treatment depends on the type, severity and location of the tear or detachment.

- If caught early, a **retinal tear** without detachment can be treated with an in-office procedure called Laser Retinopexy or Barrier Laser. In this procedure a laser is used to create a barricade or “barrier” of scarring around the retinal tear so that it does not progress to a retinal detachment. This procedure is performed with local anesthetic and has little to no down-time.
- Once a retinal tear has progressed to a **retinal detachment**, further intervention is needed. Pneumatic retinopexy is one type of procedure to reattach the retina. The surgeon injects a small gas bubble into the vitreous cavity. The bubble presses against the retina, flattening it against the back wall of the eye. The gas bubble slowly absorbs over the next 1-2 weeks. This technique is typically used in conjunction with either cryotherapy or laser (as described above) to seal the original break. This is a same day procedure, performed in-office with a local anesthetic.
- Depending on size and location some **detachments** require a different type of treatment called a vitrectomy. This is a surgical procedure performed in a sterile operating room with monitored sedation. The surgeon removes the vitreous gel, seals the original break(s) with laser and then fills the vitreous cavity with a large gas bubble. This gas will slowly absorb over 6-10 weeks as the retina heals back into place. Post operative positioning is required following surgery and often limits the patient’s ability to work for a short time.
- Lastly, some more complex detachments require repair with a scleral buckle. With this technique, a band made of silicone is attached to the outside of the eye, pressing inward and holding the retina in position. The surgeon seals any open or torn area of the retina into position with laser or cryotherapy. The scleral buckle is not visible and remains permanently attached to the eye. This technique of reattaching the retina may elongate the eye, causing nearsightedness and/or diplopia.

FAQ

When should I call my eye doctor?

Notify your doctor immediately if you notice any of the following:

- An obstruction of your peripheral vision (veil, shadow, or curtain)
- Sudden shower of floaters
- Light flashes
- Spider webs