



Retinal Detachment

A serious problem

What is retinal detachment?

Retinal detachment is a serious problem that usually affects middle-aged or older people. If it isn't treated immediately, it will lead to vision problems or even vision loss.

What causes retinal detachment?

In most cases the **retina** detaches because of small tears or holes. These may occur as the retina thins with age. More often, they happen because the **vitreous** partially separates from the retina. The vitreous is firmly attached to the retina in a few places, and as we get older it separates and may tear the retina at those areas of attachment.

In about half of the population, the vitreous has separated from the retina by age 50.

Nearsightedness, infection or injury such as a hard solid blow to the eye, can also make the vitreous separate. It is more common in people with a family history of retinal detachment.

When there is a hole in the retina, fluid from the vitreous space may pass through the hole and flow between the retina and the back wall of the eye. This can separate the retina from the back of the eye and cause it to detach. The detached part of the retina will not work properly, and you will see a blurry or blind spot in your field of vision.

Less commonly, retinal detachment can also be caused by eye diseases, complications of diabetes, or tumours. In these cases there may be no tears or holes in the retina.

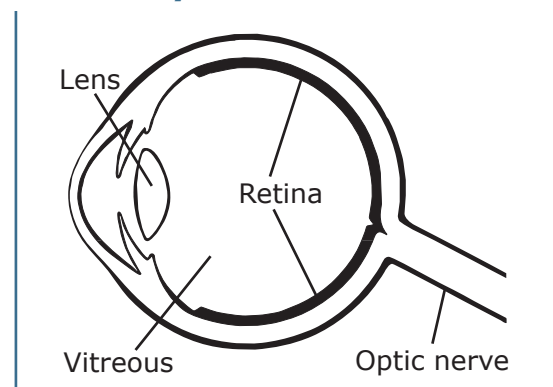
How is retinal detachment diagnosed?

You may notice that spots or flashes of light have suddenly appeared in your vision. This can mean the vitreous is separating and possibly tearing the retina. Your vision may seem wavy or watery, or you may have a shadow in your side (peripheral) vision. As the retina detaches further, central vision gets blurry. This can lead to serious vision loss unless it is fixed. Sometimes retinal detachment happens suddenly, leading to blindness in one eye. You may also quickly lose sight if your retina is torn and bleeding into the vitreous.

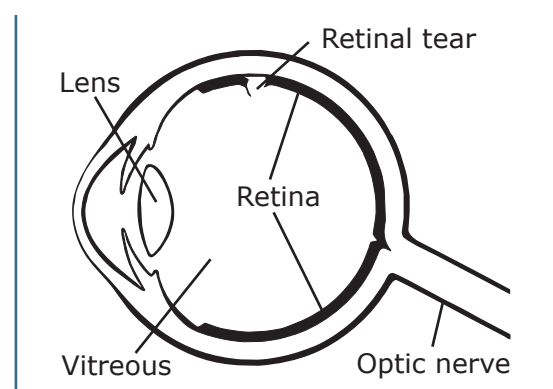
A detached retina is painless and cannot be seen from the outside of the eye. If you notice symptoms, you should see an **ophthalmologist** right away.

If you are very nearsighted or have a family history of retinal detachment, you should have regular eye exams by an ophthalmologist to detect changes and prevent retinal detachment.

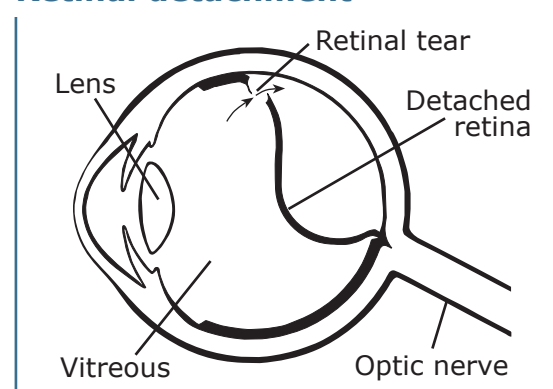
Normal eye



Retinal tear



Retinal detachment



How is retinal detachment treated?

If the retina is torn, you may be able to stop detachment by getting the tear treated quickly. If there is little or no detachment, tears can sometimes be sealed with a laser (called "laser photo-coagulation"). The laser makes small burns to seal the edges of the tear. This can be done without a hospital stay.

The edges of the tear can also be sealed by freezing the wall of the eye behind the tear (called "cryopexy"). Cryopexy is also done without a hospital stay, but you will need a local anesthetic to numb the eye.

If the retina is detached, you will need surgery to fix it. In over 90% of cases, retinal detachment can be fixed successfully. Occasionally, more than one operation is needed. Sometimes the ophthalmologist has to drain fluid so the retina can settle onto the back wall of the eye. A silicone band or pressure pad (called a "scleral buckle") may be put on the outside of the eye to push the back wall of the eye against the retina. Then cryopexy, a laser, or an electric current applied through a needle (called "diathermy") will be used to seal the tear.

In more complicated cases, a procedure called a "vitrectomy" is done. This involves cutting the vitreous away from the retina and taking it out of the eye. If the retina is shrunken and puckered from scar tissue, it may be necessary to temporarily fill the space with air, gas or silicone oil to push the retina against the back wall of the eye. If gas is used, clear fluid eventually seeps into the vitreous cavity to fill it again. Silicone oil is usually removed from the eye if the retina remains attached.

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 various levels of 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.

Glossary

Ophthalmologist: A medically trained eye doctor and surgeon.

Retina: Thin, light-sensitive tissue that covers the back of the eye and works like film in a camera to register the images we see.

Vitreous: Clear, gel-like substance that fills the inside of the eye. It helps the eye keep its shape and lets light pass through to the retina.