



Canadian Ophthalmological Society
Société canadienne d'ophtalmologie
EYE PHYSICIANS AND SURGEONS OF CANADA
MÉDECINS ET CHIRURGIENS OPHTALMOLOGISTES DU CANADA

**VISION LOSS
REHABILITATION™**
CANADA



RETINAL DETACHMENT

Recognize the warning signs

Retinal detachment needs immediate treatment
to preserve vision.

What is retinal detachment?

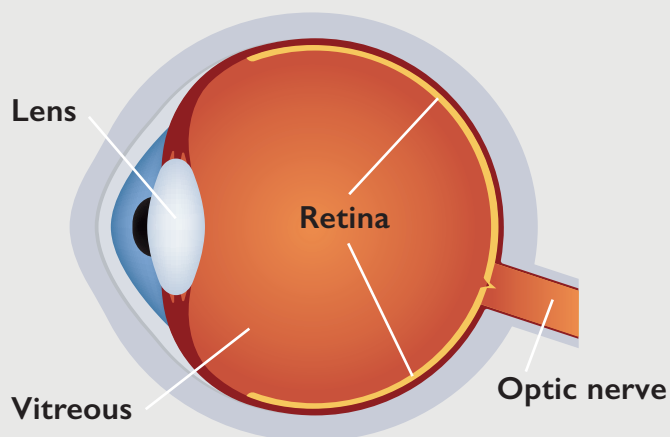
Retinal detachment is a serious problem that usually affects middle-aged or older people. If it isn't treated immediately, it will lead to vision problems or even vision loss.

What causes retinal detachment?

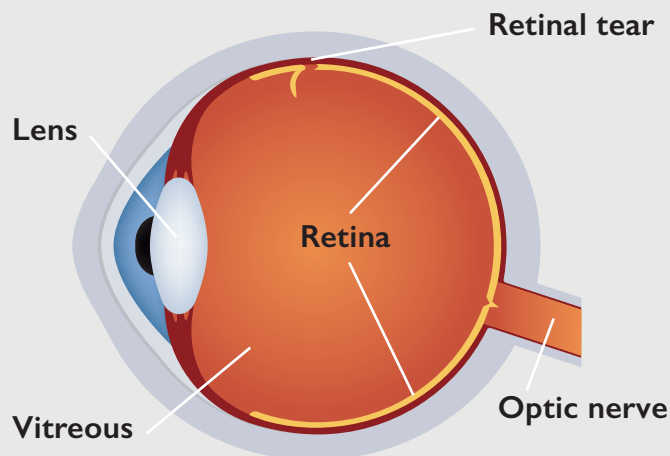
In most cases, the **retina** detaches because of small tears or holes. These may occur as the retina thins with age. More often, they happen because the **vitreous** partially separates from the retina. The vitreous is firmly attached to the retina in a few places, and as we get older, it separates and may tear the retina at those areas of attachment. In most people, the vitreous has separated from the retina by age 60. Nearsightedness (myopia), infection, or injury such as a hard blow to the eye can also make the vitreous separate. It's more common in people with a family history of retinal detachment.

Terms you might not recognize are highlighted in **bold** and explained in the glossary on page 7.

Normal eye

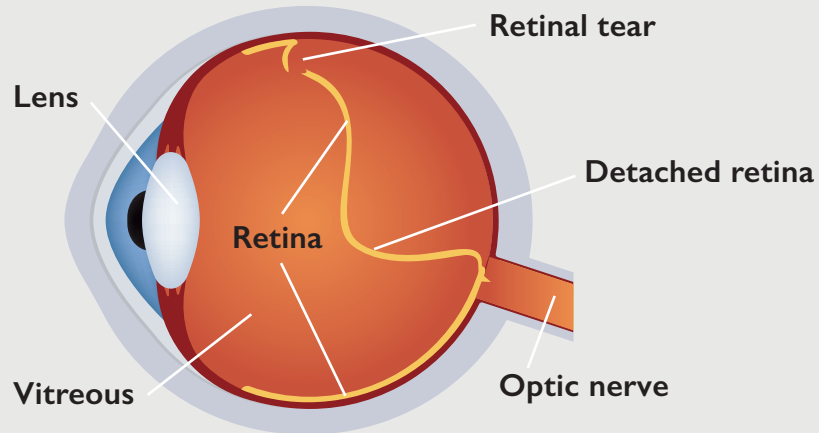


Retinal tear



When there's a tear 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 area in your field of vision. Some patients say it looks like a "dark curtain" coming in from the side of your vision.

Retinal detachment



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.



What are the symptoms of retinal detachment?

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 or curtain in your side (peripheral) vision.

Warning signs of retinal detachment



Flashes of light

New floaters or spots

Wavy or blurred vision

Curtain-like shadow

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.

If you're very nearsighted (myopic) or have a family history of retinal detachment, you should have regular eye exams by an **ophthalmologist** to detect changes and help prevent retinal detachment.

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

How is retinal detachment treated?

If the retina is torn, you may be able to prevent detachment by getting the tear treated quickly. If there is no or minimal detachment, tears can sometimes be sealed with a laser (called laser *photocoagulation*). The laser makes small burns to seal the edges of the tear. This can be done without a hospital stay. If the retina is detached, you will need a procedure to fix it. In over 90% of cases, retinal detachment can be fixed successfully. Occasionally, more than one procedure is needed.

Some retinal detachments can be fixed without surgery by doing a procedure called a *pneumatic retinopexy*. This is a procedure done in the clinic (not needing a hospital stay) that involves injecting a gas bubble in the eye to hold the retina in place while it heals. You may be asked to hold your head in a certain position so the gas bubble (which rises to the top of the eye) can push on the retina in the right direction.



The most common surgery to fix a retinal detachment is called a *vitrectomy*. This involves cutting the vitreous away from the retina and taking it out of the eye. Then the retina is repositioned against the back wall of the eye and a laser is used during the surgery to reattach the retina. This laser also prevents fluid from getting under the retina again and causing a re-detachment. If the retina is shrunk 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.

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.

Another type of surgery involves a silicone band or pressure pad (called a *scleral buckle*) 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.

About 40% of people who have their detachment successfully repaired have excellent vision within 6 months of surgery. The results are generally not as good when the retina has been detached for an extended period or when there is 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 can't 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.



See The Possibilities

A resource for the Canadian public on the topics of vision health, serious eye diseases, and what the Canadian Ophthalmological Society is doing to promote eye health for everyone.

www.seethepossibilities.ca

**VISION LOSS
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CANADA

A not-for-profit national organization and Canada's leading provider of rehabilitation and healthcare services for individuals with vision loss.

www.visionlossrehab.ca

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