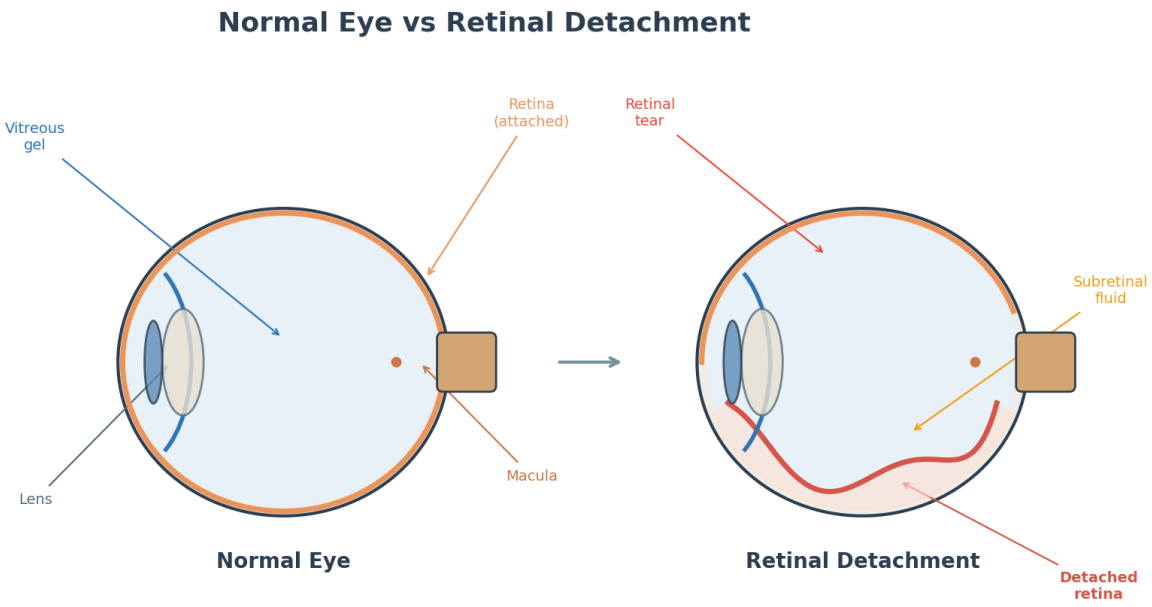
Retinal Detachment: Symptoms, Surgery & Recovery

By Dr Chee Wai Wong, Vitreoretinal Surgeon

A retinal detachment is one of those eye emergencies where time truly matters. The retina, that thin layer of tissue lining the back of your eye, is responsible for capturing the images you see and sending them to the brain. When it detaches, it separates from the supportive tissue underneath, much like wallpaper peeling off a wall. Without prompt treatment, permanent vision loss can result.

With over 15 years of experience as a vitreoretinal surgeon, I want to share what patients and their families need to know about recognising the symptoms, understanding the surgery, and what to expect during recovery.

What Causes Retinal Detachment?



The most common type of retinal detachment is called a rhegmatogenous retinal detachment. It starts when the vitreous (the gel-like substance that fills the inside of your eye) shrinks and pulls on the retina, creating a tear. Fluid then seeps through this tear, lifting the retina away from its underlying support layer.

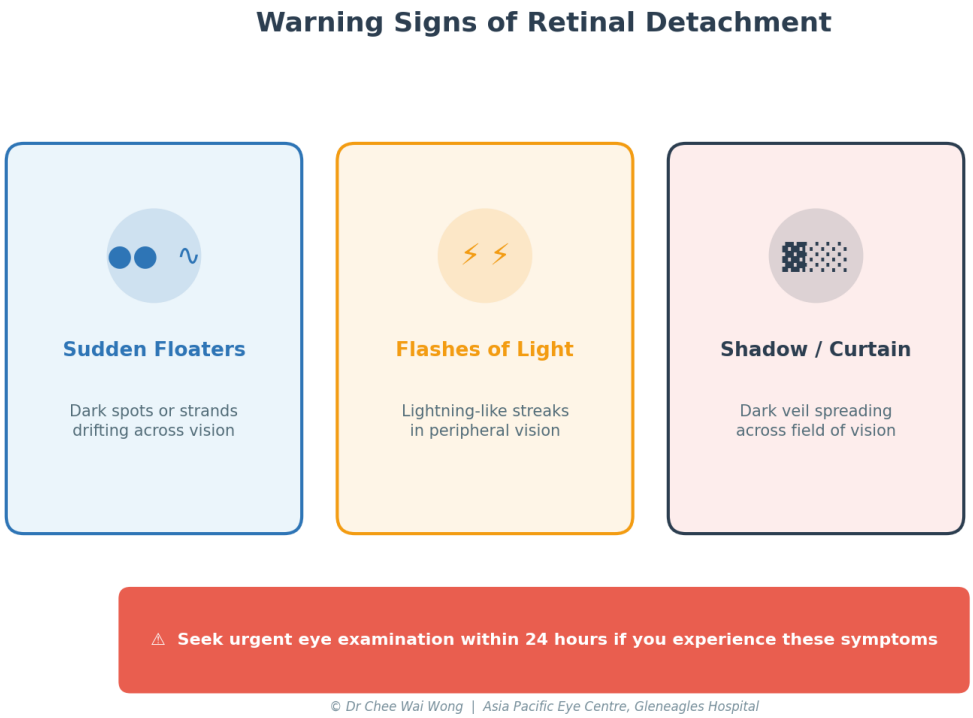
Several factors increase your risk:

- Age: Retinal detachment is most common between the ages of 50 and 70, though it can occur at any age.

- High myopia (short-sightedness): If you are very short-sighted (more than 500 degrees), your eye is longer than average, which stretches and thins the retina. Published studies have shown that myopia is present in over half of all retinal detachment cases.
- Previous cataract surgery: The risk of retinal detachment increases after cataract surgery. The mechanisms are complex and may involve changes to the vitreous and inflammatory processes within the eye.
- Family history: If a close relative has had a retinal detachment, your risk is higher.
- Eye trauma: A blow to the eye can cause retinal tears and detachment, and this is a particularly common cause in younger patients.

In children and teenagers, myopia is also the most common underlying risk factor for retinal detachment, and outcomes in younger patients can be more challenging because they often present late, with more advanced detachments.

Recognising the Warning Signs



Retinal detachment itself is painless. The key warning signs are:

- A sudden increase in floaters: dark spots or strands drifting across your vision
- Flashes of light, especially in your peripheral (side) vision
- A shadow or curtain spreading across your field of vision, like a dark veil being pulled over your eye

The flashes and floaters often signal a posterior vitreous detachment, where the vitreous gel pulls away from the retina. While this is common and often harmless, it can sometimes tear the retina in the process. If the tear is detected early, before the retina fully detaches, it can often be treated with a simple laser procedure in the clinic.

The key message here is urgency. If you notice a sudden shower of floaters, new flashes of light, or any shadow in your vision, see an eye doctor immediately. Do not wait to see if it goes away. The sooner a retinal detachment is treated, the better the chances of preserving your vision, particularly if the macula (the central part of the retina responsible for sharp, detailed vision) is still attached.

How Is Retinal Detachment Repaired?

The goal of surgery is straightforward: seal the retinal tear, relieve any traction pulling on the retina, and reattach the retina to the tissue underneath. There are three main surgical approaches, and the choice depends on the nature and severity of your detachment.

Scleral Buckling

This is a procedure where a silicone band or sponge is stitched to the outside of the eye (the sclera), creating a gentle indentation that pushes the wall of the eye toward the detached retina. Cryotherapy (a freezing treatment) is applied to seal the retinal tear. This procedure has been used for decades and remains an excellent option, particularly for younger patients and those with straightforward detachments. Scleral buckling achieves a primary reattachment rate of about 88–89% in a single operation.

Vitrectomy (Pars Plana Vitrectomy)

Vitrectomy involves removing the vitreous gel from inside the eye using tiny instruments inserted through small incisions. The surgeon then directly addresses the retinal tear from the inside, draining the fluid under the retina, applying laser to seal the tear, and filling the eye with a gas bubble or silicone oil to hold the retina in place while it heals. Vitrectomy is particularly suited for more complex detachments, such as those involving multiple tears, detachment of the macula, or early scar tissue formation (proliferative vitreoretinopathy, or PVR). Modern small-gauge vitrectomy techniques have made this surgery faster, more comfortable, and associated with quicker recovery compared to older approaches.

Combined Scleral Buckle and Vitrectomy

For more complex cases, we may combine both procedures. This approach allows us to address traction from both the outside and inside of the eye. Published data shows that this combined approach achieves primary success rates comparable to scleral buckling alone (about 89%), even in more challenging detachments.

Which Surgery Is Best?

There is no single "best" surgery. The choice is tailored to each patient. In general, younger patients with their natural lens intact and straightforward detachments do well with scleral buckling. Patients who have had previous cataract surgery, or those with more complex detachments, often benefit from vitrectomy. What matters most is that regardless of the technique used, the final success rate for retinal reattachment is very high, over 95-97% when all procedures are considered.

What Affects the Outcome?

From published research, several factors influence how well vision recovers after surgery:

- Whether the macula was detached: If the macula is still attached at the time of surgery ("macula on"), visual outcomes are generally excellent. Once the macula detaches, some degree of vision loss is expected, even after successful surgery.
- How long the retina was detached: The longer the retina has been detached, the greater the loss of photoreceptor cells, and the harder it is for vision to recover fully. This is why early detection and treatment are so important.
- The presence of PVR (scar tissue): PVR is the most common reason for surgical failure. It occurs when cells on the retinal surface proliferate and form membranes that contract and pull on the retina, preventing it from lying flat. PVR is more common in complex, long-standing detachments.
- Age: Younger patients generally recover better visual function after surgery.

What to Expect During Recovery

Recovery after retinal detachment surgery varies depending on the type of procedure:

After scleral buckling, the eye may be sore, red, and swollen for a few days to weeks. You will use antibiotic and anti-inflammatory eye drops for several weeks. Most patients can return to light activities within one to two weeks.

After vitrectomy with a gas bubble, you may need to maintain a specific head position (posturing) for several days to weeks, depending on the location of the retinal tear. The gas bubble gradually absorbs on its own over two to eight weeks. During this time, you must not fly or travel to high altitudes, as the gas expands at lower atmospheric pressure and can dangerously raise the pressure inside your eye. Vision will be very blurry while the gas bubble is present and gradually clears as it absorbs.

After vitrectomy with silicone oil, the oil keeps the retina in place and is typically removed in a second, smaller operation a few months later.

Common experiences during recovery include:

- Blurred vision that gradually improves over weeks to months
- A feeling of pressure or mild discomfort in the eye
- Sensitivity to light
- Gradual clearing of the gas bubble (if used), which you may perceive as a dark circle at the bottom of your vision that slowly shrinks

It is normal for full visual recovery to take three to six months or sometimes longer. In some cases, the eye may also develop a cataract after vitrectomy. This is related to changes in the oxygen environment within the eye after the vitreous is removed, and can be addressed with cataract surgery at a later date.

When Should You Be Concerned After Surgery?

Contact your surgeon immediately if you experience:

- Increasing pain that is not relieved by simple painkillers
- Sudden worsening of vision
- Increasing redness or discharge from the eye
- A new shadow or curtain in your vision (which may indicate a re-detachment)

The Bottom Line

Retinal detachment is a serious condition, but with modern surgical techniques, the outcomes are excellent. The retina can be successfully reattached in over 95% of cases. The single most important thing you can do is to seek help quickly if you notice warning signs. Those flashes, floaters, or shadows should never be ignored. Early treatment gives you the best chance of preserving your sight.

Dr Chee Wai Wong is a vitreoretinal surgeon practising at Asia Pacific Eye Centre, Gleneagles Hospital, Singapore. He has a special interest in retinal detachment, high myopia, and macular diseases. This article is for informational purposes and does not replace professional medical advice. If you have concerns about your eyes, please consult an ophthalmologist.