

Retinal Detachment

⚠ This Is an Eye Emergency — Act Within Hours, Not Days

If you suddenly notice any of the following, stop what you are doing and call us immediately:

- **New floaters** — dark spots, strings, or cobwebs drifting across your vision
- **Flashes of light** — sparks or lightning-like streaks, even in a well-lit room
- **A shadow or curtain** — a dark area blocking part of your vision — above, below, or to the side
- **A grey cloud** — a hazy veil that wasn't there before

These symptoms can appear together or alone. None of them should be ignored.

"But Don't We All See Floaters Sometimes?"

Yes — and most of the time, floaters are harmless. They are tiny, age-related changes inside the eye that drift across vision and are generally nothing to worry about.

What is different — and serious — is this: floaters that appear suddenly, increase rapidly, or come alongside flashes of light or a shadow. This combination is your eye sending an alarm signal.

This is especially true if you wear glasses with a minus (myopic) prescription. Short-sighted eyes carry a higher lifetime risk of retinal detachment.

What Is Actually Happening Inside Your Eye?

To understand retinal detachment, it helps to know a little about the eye's anatomy.

The back half of your eye is filled with a clear, jelly-like substance called the vitreous. As we age, this jelly naturally liquefies and begins to pull away from the retina — the light-sensitive layer lining the back of the eye. This pulling away is called a posterior vitreous detachment (PVD), and by itself, it is a normal part of ageing.

The problem arises when the vitreous jelly is unusually firmly attached to the retina in certain spots. As it pulls away, it can tug hard enough to create a tear in the retina.

Now there is a hole. And the liquefied vitreous — now watery rather than jelly-like — can seep through that hole and slip underneath the retina, slowly lifting it away from the back wall of the eye.

This is retinal detachment.

The Tyre Puncture Analogy

Here is the way I explain this to every patient in my clinic:

Imagine your car tyre gets a puncture. A nail pierces the tube, air leaks out, and the tyre goes flat. The car cannot be driven safely. You need a mechanic — urgently.

The mechanic removes the nail, locates the exact puncture point, applies a sealant, reinflates the tyre, and fits it back on the car.

In retinal detachment:

- The vitreous jelly is the nail — it creates the tear
- The watery fluid leaking through the tear is the escaping air — it lifts the retina
- The surgeon's job is to remove the vitreous, drain the fluid, and seal the hole with laser or freezing treatment (cryopexy)

One more thing about this analogy: even a well-repaired tyre can, in some road conditions, get punctured again. The same is true for a small proportion of patients after retinal surgery — which is why follow-up is essential.

Why the First 48 Hours Are Critical

The retina — like the brain, the heart, and the kidneys — has no backup blood supply. Damage to it is often permanent.

At the centre of the retina sits the macula: the small, extraordinarily important zone responsible for your sharp, detailed, central vision — the vision you use to read, recognise faces, and drive.

If the macula detaches and remains detached for more than 48 hours, vision may not fully recover — even after a successful surgical repair.

This is why retinal detachment is treated as an emergency. The goal is always to get the retina back in position before the macula is affected. When that is achieved, the visual outcomes are excellent.

Treatment Options

There is no single operation for retinal detachment. The right choice depends on where the tear is, how much of the retina has lifted, and the overall condition of your eye. Your surgeon will discuss the best option for you.

A. Laser Treatment (Photocoagulation)

Laser can be used to wall off a very small, early detachment — limiting how far it spreads. It works best for small holes in the periphery of the retina where the retina has not yet significantly lifted. It is not sufficient for larger detachments or tears.

B. Pneumatic Retinopexy (Gas Injection)

A small bubble of gas (SF6 or C3F8) is injected into the eye. The bubble floats upward and presses against the retinal hole, holding it closed while the eye heals. The patient must maintain a specific head position for 2–3 days to keep the bubble over the correct spot. Once the retina settles, the tear is sealed with laser or cryotherapy.

- **Success rate:** up to 80% in carefully selected cases
- **Limitation:** you cannot fly — or travel to high altitude — until the gas has fully absorbed, which takes 2 to 6 weeks depending on the gas used

C. Scleral Buckling

One of the oldest and most proven procedures in eye surgery — with a history of over a century. A soft silicone band is stitched onto the outside of the eye (the sclera), gently indenting the wall inward to support and close the retinal break. The tear is treated with cryotherapy, and a gas or air bubble may be used additionally.

- **Success rate:** 80–90%
- **Best suited for:** children, young patients, and many straightforward detachments
- **Note:** This technique requires specific surgical training. Many experienced senior surgeons prefer it; some younger surgeons may recommend vitrectomy instead. Both are valid approaches — what matters most is choosing the right operation for the right patient.

D. Vitrectomy

The most widely performed surgery for retinal detachment today. The vitreous jelly is carefully removed from inside the eye — eliminating the traction pulling on the retina. The retina is then gently repositioned, the fluid beneath it is drained through the retinal hole, and the hole is sealed with laser. To hold the retina in place while it heals, the surgeon fills the eye with either gas or silicone oil.

Gas tamponade

- Provides excellent support, especially over the hole
- Gradually absorbs on its own over 2–6 weeks
- No flying or high-altitude travel until the gas clears

Silicone oil tamponade

- Provides long-lasting, consistent support
- Does not absorb on its own — a second, straightforward operation to remove it is usually planned 2–6 months later
- Occasionally, the retina may re-detach after oil removal, requiring further treatment

When the Retina Re-Detaches

In 5–10% of patients, the retina detaches again after a successful repair. This is caused by proliferative vitreoretinopathy (PVR) — a scarring process that can develop inside the eye following injury or surgery, similar to how scar tissue forms elsewhere in the body after a wound heals.

PVR remains one of the most challenging problems in retinal surgery. Despite significant research, it is still difficult to prevent in some patients. Those affected may require multiple surgeries, and even then, the final visual outcome can be limited.

This is not a failure of surgery — it is the biology of a small number of eyes that scar aggressively. Your surgeon will be honest with you about your individual risk.

What to Expect: Outcomes at a Glance

Situation	Likely Outcome
Macula-on detachment (central vision not yet affected)	Excellent — most patients recover very good vision
Macula-off, treated promptly	Good, though some central vision loss may remain

Complex detachments (giant tears, trauma, inflammation)	More variable — requires careful discussion with your surgeon
Re-detachment due to PVR scarring	Challenging — multiple surgeries may be needed

If you are experiencing any of the symptoms described at the top of this page, please do not wait for a routine appointment. Contact our clinic immediately or go to your nearest eye emergency service.