

Retinal Detachment: Warning Signs, Urgent Care, Treatment, and Recovery

New flashes, a sudden shower or increase of floaters, a dark shadow or curtain, or sudden blurred or missing vision? Seek emergency eye care immediately—even if the eye does not hurt and even if a recent examination was normal. Call an ophthalmologist or retina service now. If prompt eye care is unavailable, go to an emergency department. Do not drive if your vision is affected.

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A retinal detachment may begin not with pain, but with a visual change that is easy to rationalize: a new moving speck, flashes at the edge of sight, or a peripheral shadow. Sometimes an initial assessment is reassuring, yet the shadow enlarges or vision changes. Worsening or new symptoms require urgent reassessment. A moving floater does not rule out a retinal tear, and neither reassurance nor a previously normal examination makes a later change safe to watch. Only a prompt eye examination can distinguish a common uncomplicated vitreous change from a tear or detachment. [1] [2] [3]

This guide explains what the retina, vitreous, and macula do; why several different problems can produce similar symptoms; how clinicians examine and repair the retina; and how to recover safely. It is general education, not a diagnosis or an instruction to wait, choose a procedure, or change an operating surgeon's plan.

Evidence Summary

- Treat warning symptoms as an emergency. New flashes, a sudden increase or shower of floaters, a shadow or curtain, or sudden loss or blurring of vision needs immediate, same-day emergency eye assessment. Retinal detachment is commonly painless. Do not wait for pain, a complete symptom set, the next morning, or a routine appointment. [1] [4]
- Symptoms cannot reliably separate a posterior vitreous detachment (PVD) from a retinal tear. Most PVDs do not cause a tear, but vitreous traction can tear the retina and allow fluid underneath it. A dilated peripheral retinal examination is essential. [2] [3]
- A normal first examination is not a lifetime clearance. Some tears appear later. A new or increasing shower of floaters, flashes, shadow, curtain, or loss of vision requires immediate repeat assessment, regardless of a planned follow-up visit. [2]
- Macular status matters, but there is no patient-safe waiting period. Central vision is usually better preserved when the macula remains attached. Once it is detached, prompt repair can still protect remaining vision and support recovery. Research comparing time intervals helps retina services prioritize care; it is not permission to self-schedule or wait. [5] [4]
- A tear and a detachment are not the same treatment problem. Laser or cryotherapy can seal selected tears while the surrounding retina is attached. An established rhegmatogenous detachment usually needs pneumatic retinopexy, a scleral buckle, vitrectomy, or a combination. Tractional and exudative detachments require different strategies. [6] [2]
- No operation is best for every eye. Break location, extent, lens status, scar tissue, hemorrhage, other eye disease, ability to position, and access to follow-up all affect the choice. Reattachment and vision recovery are different outcomes. [7] [8] [9]

- If gas or air is in the eye: no flying while any remains. Avoid unapproved altitude change and scuba diving. Do not receive nitrous oxide anesthesia, dental sedation, or “gas and air” such as Entonox/Equanox. Tell every clinician and dentist and carry a medical alert. Restrictions end only when the bubble is fully gone and the ophthalmologist confirms clearance. [10] [11] [12]
- Recovery instructions are individualized. Position only as prescribed; there is no universal face-down schedule. Worsening vision, severe or increasing pain, marked redness or swelling, concerning discharge, nausea or vomiting with eye pain, or recurrent flashes, floaters, or a curtain requires immediate contact with the retina service or emergency eye care. [13] [6]

Recognize the warning signs and act now

The classic warning pattern is visual rather than painful:

- new flashes of light, often at the edge of vision;
- a sudden increase or shower of spots, strands, cobwebs, or floaters;
- a dark, gray, or missing area in side vision;
- a shadow or “curtain” that may stay still or advance;
- sudden blur, distortion, or loss of central vision.

Not everyone has every symptom. A tear can occur without a curtain; a detachment can be noticed only after it has grown; and some people recognize little change. Conversely, flashes and floaters often turn out to be an uncomplicated PVD. The problem is that symptoms alone cannot safely tell those situations apart. [1] [4] [2]

Call an ophthalmologist, emergency eye clinic, or retina service immediately. Say when the change began, which eye is affected, whether it is worsening, and whether there is a shadow or lost field. If you cannot obtain prompt specialist assessment, go to an emergency department. An emergency department may need to arrange ophthalmology evaluation; a routine glasses check or an undilated screening photograph is not an adequate substitute when a tear is suspected.

Do not drive with impaired vision. Ask someone to take you, use emergency transport when appropriate, and bring your medicines and eye history if they are readily available. Do not delay departure to search for records. Avoid eating or drinking only if the clinical service specifically tells you to do so; urgent evaluation does not always mean immediate surgery, and local anesthesia plans differ.

Three false reassurances deserve special emphasis:

1. “It does not hurt.” Retinal detachment is often painless. Pain is not required for an emergency.
2. “The spot moves, so it is only a floater.” Floaters commonly move with eye movement, but a new floater can accompany vitreous traction, bleeding, or a tear. Movement does not exclude danger.
3. “The examination was normal.” A careful normal examination is reassuring for that moment, but delayed tears can occur after an acute PVD. New or worsening symptoms override the calendar and require repeat urgent examination. [2]

A cataract usually causes gradual clouding, glare, or reduced clarity. It should not be used at home to explain away a new peripheral shadow or rapidly changing field. Other eye, vascular, and neurologic emergencies can also cause sudden visual loss. Seeking urgent assessment is appropriate even when the final diagnosis is not retinal detachment.

Retina, vitreous, and macula: the anatomy behind the symptoms

The retina is a thin layer of light-sensitive neural tissue lining the inside back wall of the eye. It converts light into signals that travel through the optic nerve to the brain. Under the sensory retina lie supporting tissues, including the retinal pigment epithelium and choroidal circulation. Separation from that support disrupts retinal function; prolonged separation can cause irreversible injury.

The macula is the specialized central part of the retina used for detailed straight-ahead vision—reading, recognizing faces, and seeing fine detail. Its center is the fovea. Clinicians may call a detachment macula-on or fovea-on when this central area is still attached, and macula-off or fovea-off when it is involved. Peripheral retina supplies much of side vision, so an advancing detachment often creates a shadow from the opposite direction in the visual field.

The vitreous is transparent gel filling most of the eye behind the lens. In youth it is more uniformly gel-like and attached at multiple retinal sites. With age it liquefies and contracts. Eventually its back surface may separate from the retina, producing a posterior vitreous detachment, or PVD. Condensations in the vitreous cast moving shadows perceived as floaters. Mechanical pull on the retina can be perceived as flashes. [14] [3]

Most PVDs are a normal age-related event and do not become retinal detachments. But where the vitreous remains strongly attached, separation can pull hard enough to create a full-thickness retinal tear. Blood or pigment may enter the vitreous. Fluid can then pass through the break and collect beneath the retina, peeling it away from its support. That sequence—PVD, traction, tear, fluid under retina—is common in rhegmatogenous retinal detachment, but it is not the only way a retina can detach.

PVD, tear, and the three types of retinal detachment

The distinctions matter because urgency, treatment, and recovery differ.

Posterior vitreous detachment: The vitreous separates from the retina. It may cause a ring, cobweb, flashes, or new floaters. It is frequently uncomplicated, but no symptom pattern reliably distinguishes PVD without a break from PVD with a break. AAO guidance reports retinal tears in roughly 5.4%–8% of acute symptomatic PVD presentations at the initial examination. Even after a negative initial examination, a smaller delayed-break risk remains; findings such as vitreous hemorrhage, pigment, lattice degeneration, high myopia, or a tear/detachment in the other eye can increase concern. [2]

Retinal tear or hole: A full-thickness break exists, but the retina may still be mostly attached. Symptomatic tractional horseshoe tears generally merit prompt treatment. Some small atrophic holes or other asymptomatic lesions are observed rather than automatically treated. The decision depends on break type, symptoms, surrounding fluid, risk factors, and the rest of the examination.

Rhegmatogenous retinal detachment (RRD): “Rhegma” means a break. Liquefied vitreous passes through one or more tears or holes and separates the sensory retina from underlying support. This is the type repaired with break closure plus a buckle, gas, vitrectomy, or a combination.

Tractional retinal detachment: Scar or abnormal vascular tissue contracts and pulls the retina away without fluid entering through a causative retinal break. Proliferative diabetic retinopathy is an important cause; other vascular, inflammatory, or proliferative disorders can contribute. Surgery, when needed, focuses on relieving membranes and traction. A tractional detachment can develop a break and become combined tractional-rhegmatogenous disease.

Exudative or serous retinal detachment: Fluid accumulates under the retina because of inflammation, vascular leakage, a tumor, or another underlying disorder, without a causative retinal break or primary traction. Treatment targets the cause—sometimes medication or tumor/vascular treatment—rather than automatically applying the RRD operation menu. [15]

This taxonomy explains why “laser fixes a detached retina” is incomplete. Laser can be crucial around a tear or during repair, but a large rhegmatogenous detachment generally needs a mechanical strategy to bring the retina back against the eye wall. A tractional or exudative detachment may require a fundamentally different plan.

Risk factors change probability—not destiny

Retinal detachment can occur without an obvious preventable trigger. Important risk factors include increasing age and PVD; nearsightedness, especially high or axial myopia; lattice degeneration; serious blunt or penetrating injury; previous cataract or other intraocular surgery; a previous tear or detachment in either eye; and a first-degree family history or inherited connective-tissue disorder such as Stickler syndrome. Diabetes is particularly relevant to tractional detachment, while inflammation and abnormal vascular leakage can produce exudative disease. [1] [2]

In myopia, an elongated eye stretches and thins peripheral retinal tissues and changes vitreous behavior. Risk generally rises with the degree and axial nature of myopia, but myopia is not fate. Most nearsighted people do not have a retinal detachment, and a person without myopia can still develop one. Risk factors do not determine whether today’s symptoms are benign; the examination does.

Prior cataract surgery raises risk but does not make detachment inevitable. AAO’s synthesis cites a US registry estimate of rhegmatogenous detachment within one year in approximately 0.21%—about 1 in 500—of more than three million cataract operations performed in 2014–2017. That population figure cannot predict one person’s risk, which also depends on age, sex, axial length, complications, lattice, and other history. [2]

After a nontraumatic detachment in one eye, the fellow eye warrants ongoing attention. AAO guidance gives an approximate 10% fellow-eye RRD risk, but individual risk varies widely. Preventive treatment of selected high-risk lesions may be considered; routinely lasering every asymptomatic peripheral finding is not supported. Protective eyewear can reduce traumatic eye injury. No intervention guarantees that PVD, a new tear, or detachment will never occur.

What an urgent retinal examination can—and cannot—show

The assessment starts with a precise history: onset and change in flashes, floaters, field loss, blur, trauma, myopia, eye surgery, diabetes, family history, and prior tear or detachment. Clinicians measure visual acuity, assess pupils and visual fields, and examine the front and back of both eyes. Dilating drops widen the pupil so the peripheral retina can be inspected.

The key test is a dilated peripheral retinal examination, usually with indirect ophthalmoscopy and often scleral depression—a controlled technique that brings the far peripheral retina into view. A contact lens examination may supplement or sometimes substitute. The examiner looks for tears, holes, lattice degeneration, pigment cells or blood in the vitreous, subretinal fluid, the detachment’s extent, and whether the macula is involved. [2]

Imaging can help, but each tool has limits:

Test	Useful role	Important limit
Optical coherence tomography (OCT)	Cross-sectional detail of the macula; can clarify shallow central fluid, foveal involvement, vitreomacular interface, or later retinal structure.	A macular OCT does not inspect the entire peripheral retina and cannot replace a dilated tear search.
B-scan ultrasound	Shows the retina through dense cataract, vitreous hemorrhage, or another opacity when direct view is poor.	A negative scan does not always exclude a small retinal tear. AAO reports widely varying tear sensitivity in fundus-obscuring hemorrhage; persistent suspicion needs close or repeat assessment.

Widefield photography	Documents a broad retinal area and can show some breaks or detachment.	It may miss anterior/peripheral pathology and does not replace careful ophthalmoscopy.
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A first examination may be limited by a small pupil, hemorrhage, cataract, patient discomfort, or a tear that has not yet developed. A negative study should be interpreted in context. The clinician may schedule repeat dilation after acute PVD, especially when higher-risk features are present. That follow-up is a safety net, not a reason to wait if symptoms change. [2]

Macula-on, macula-off, and why no delay is “safe”

When the macula remains attached, the immediate goal is to prevent the detachment from reaching central vision. When it is detached, surgery is still urgent: repair aims to restore anatomy, protect retina that remains attached, and give central vision its best opportunity to recover. “Macula-off” does not mean “nothing more can be lost” or “waiting no longer matters.”

A 2022 meta-analysis combined 20 observational studies involving 1,929 patients. Earlier-repair groups had slightly better final acuity than later-repair groups for both macula-off and macula-on RRD, but the evidence was only moderate and low quality, respectively, and baseline vision and other differences may have influenced results. The study informs retina-service prioritization; it does not establish a safe interval for a patient to wait. [5]

These are group comparisons, not a countdown for an individual. The exact onset may be uncertain. Detachments progress at different rates; break location, fluid configuration, lens status, the fellow eye, operating resources, and medical circumstances all matter. A patient cannot reliably determine macular status at home. Therefore:

- seek assessment immediately;
- do not wait to see whether a shadow grows;
- do not turn a research comparison or online time window into a self-approved delay;
- let the retina surgeon determine operative timing after examining the eye.

Sealing a tear before detachment

Prompt treatment of a symptomatic tractional tear can prevent fluid from spreading beneath the surrounding retina. Laser photocoagulation places a series of burns around the tear. Cryopexy applies a freezing probe from the outside of the eye. Each creates a chorioretinal scar that acts as a barrier after it matures. Laser is not painless for everyone, and neither approach instantly welds the tissue or removes all future risk.

AAO guidance cites progression to detachment below 5% after prompt treatment of symptomatic horseshoe tears. This is substantial risk reduction, not a guarantee. Treatment can be incomplete, the original tear can extend, or a new tear can appear elsewhere while PVD continues. Attend follow-up and return immediately for new flashes, increased floaters, a curtain, or loss of vision. [2]

Not every asymptomatic hole or lattice area should be treated. Preventive laser has tradeoffs and uncertain benefit in lower-risk lesions. The ophthalmologist weighs symptoms, traction, fluid, fellow-eye history, planned surgery, inherited risk, and whether the lesion can be safely observed.

Repairing an established rhegmatogenous detachment

The treatment objective is to identify and close all relevant breaks, relieve traction, and keep the retina against the eye wall long enough for laser or cryotherapy to create a durable adhesion. The surgeon may use one or more methods.

Pneumatic retinopexy places an expansile gas bubble into the vitreous cavity. The head is positioned so the bubble floats against the retinal break; laser or cryotherapy seals the break, and subretinal fluid is absorbed. It can be performed in an office or procedure setting for selected configurations. It requires suitable break location, reliable positioning, prompt follow-up, and readiness for additional treatment if the retina does not remain attached.

Scleral buckle surgery secures a silicone band or sponge to the outside of the eye. This external silicone element is different from silicone oil placed inside the eye. The indentation supports the break and relieves vitreous traction; cryotherapy is often applied, and subretinal fluid may be drained. A buckle may change refraction, often toward more nearsightedness, and may be used alone or with vitrectomy. It can be particularly useful in selected younger, phakic eyes and in configurations amenable to external support.

Pars plana vitrectomy (PPV) removes vitreous gel and traction through small ports in the eye wall. The surgeon can drain subretinal fluid, find and treat breaks, and fill the eye with air, gas, or silicone oil. PPV is commonly considered for pseudophakic eyes, posterior or multiple breaks, vitreous hemorrhage, giant tears, proliferative vitreoretinopathy, and other complex anatomy. Cataract commonly progresses after PPV in an eye that still has its natural lens.

Combined buckle and vitrectomy may be appropriate when both external support and internal traction removal are useful. It is not automatically superior; added steps have added burdens. The surgeon's recommendation reflects anatomy, disease complexity, lens status, prior surgery, visual needs, and experience. [6] [4] [16]

Gas, air, and silicone oil are not interchangeable

Air and expansile gases provide temporary internal support and are gradually absorbed. The bubble markedly blurs vision and may create a moving horizontal line as it shrinks. Silicone oil provides longer-term support, is not an expansile gas, and is not naturally absorbed; it often requires a later procedure for removal. Oil can be selected for complex detachments, PVR, or other surgical considerations. It has its own risks, including pressure problems and emulsification. [12] [16]

Patients should leave with a clear answer to: Was air, gas, or silicone oil used? Which type? What positioning and travel rules apply? Do not infer the answer from how vision looks or schedule travel from an online "number of weeks."

What comparative trials actually tell us

Procedure studies are easy to overgeneralize. Trial eligibility defines who the result applies to, and "success" may mean attachment after one procedure, final attachment after additional procedures, visual acuity, distortion, or a complication.

The PIVOT randomized trial enrolled 176 patients with selected primary RRD: a single break or grouped breaks within one clock hour in detached retina, located above the 8- and 4-o'clock meridians; any number, location, and size of breaks or lattice in still-attached retina were allowed. At one year, pneumatic retinopexy produced mean ETDRS acuity of 79.9 letters versus 75.0 after PPV—a 4.9-letter difference ($P=.024$). Primary anatomic success was lower with pneumatic retinopexy, 80.8% versus 93.2% ($P=.045$), while final/secondary anatomic success after additional treatment was nearly identical, 98.7% versus 98.6%. Among phakic eyes, cataract surgery by 12 months occurred in 16% versus 65% ($P<.001$). Vertical metamorphopsia also favored pneumatic treatment. [7]

That is a meaningful option for eligible anatomy, not proof that an office bubble is best for every detachment. The tradeoff was better average visual/function outcomes, less cataract surgery, and less distortion, but a greater chance of needing rescue treatment after initial pneumatic repair. Inferior breaks, extensive or complex disease, tractional or exudative detachment, and many PVR cases were not established as PIVOT candidates.

The multicenter SPR trial separately studied phakic and aphakic/pseudophakic medium-complexity RRD. In 416 phakic patients, visual improvement favored buckle and cataract progression was greater after PPV. In 265 aphakic/pseudophakic patients, one-year visual improvement did not significantly differ, while primary attachment favored PPV (72.0% versus 53.4%) and redetachment was lower (20.4% versus 39.8%). [8]

A separate 150-eye randomized trial in pseudophakic RRD with PVR grade B or less found single-surgery attachment of 94% after PPV versus 83% after buckle. Final attachment after additional operations and one-year vision were similar. [17] Broader systematic-review evidence is heterogeneous and generally does not identify a universal winner. [9]

The useful conclusion is not a procedure ranking. Ask whether the evidence applies to the eye's break pattern, lens status, complexity, and practical circumstances—and distinguish avoiding another operation from final attachment and from quality of sight.

Reattachment is not the same as restored vision

Current NEI and ASRS patient information says repair is ultimately anatomically successful in about 9 in 10 cases, sometimes after more than one procedure. That statistic combines varied cases and should not be read as a personal forecast. A retina can be reattached while vision remains blurred, distorted, dim, or reduced. [1] [4]

Visual outcome depends heavily on whether and how long the macula was detached, vision before surgery, detachment extent, PVR, other retinal or optic-nerve disease, cataract, and complications. If the macula remained attached, postoperative vision often resembles preoperative vision. If it detached, vision often improves after repair but may not return to its previous level. Recovery can continue for months, and distortion or altered image size may persist.

Proliferative vitreoretinopathy (PVR) is scar-membrane growth on or under the retina. Contraction pulls on the retina, creates stiffness or new breaks, and is a major cause of recurrent or complex detachment. It may require repeat vitrectomy, membrane removal, a buckle, retinectomy, silicone oil, or combinations. Other possible complications include recurrent or new detachment, cataract, raised or low eye pressure, bleeding, infection, epiretinal membrane, field loss, and need for additional surgery. [16]

Recovery: the gas-bubble rules that prevent blindness

If any air or gas bubble remains in the eye: do not fly, go to high altitude, or scuba dive. Never receive nitrous oxide. Tell every clinician and dentist, and carry a visible medical alert.

Reduced cabin pressure or increasing altitude can make an intraocular gas bubble expand, sharply increasing eye pressure and potentially causing retinal artery ischemia, permanent sight loss, or blindness. A small bubble is still a bubble. No flying is permitted until it is completely absorbed and the treating ophthalmologist confirms clearance. Route altitude also matters when traveling by car or train through mountains. Do not decide that travel is safe because a generic recovery period has elapsed. Gas type, concentration, fill, eye pressure, and individual absorption vary. [10] [13] [12]

Nitrous oxide diffuses rapidly into an intraocular gas bubble. It must not be used for general anesthesia, procedural sedation, dental sedation, childbirth analgesia, or ambulance/emergency “gas and air” while gas remains. Brand terms include Entonox and Equanox. Tell surgeons, anesthesiologists, dentists, paramedics, emergency clinicians, and maternity teams: “I have an intraocular gas bubble. Do not give nitrous oxide. Contact ophthalmology/anesthesia.” Wear the supplied wristband, carry the gas card, and place an alert in medical and dental records. Necessary emergency treatment should proceed with an informed team and a safe anesthetic plan; the warning is not a reason to avoid emergency care. [11]

Silicone oil does not expand like intraocular gas, so this specific gas-expansion prohibition is different. But oil does not make unrestricted travel automatically safe. Postoperative healing, pressure, positioning, other-eye vision, and plans for oil removal still require the surgeon's clearance. If you are unsure what is inside the eye, verify with the retina team before travel, altitude change, anesthesia, or dental sedation. [18]

Positioning, activity, work, and driving

Positioning places a bubble against the treated break. Depending on break location and procedure, the prescription may be face-down, left-side, right-side, upright, or a sequence that differs by day and night. Some operations require no face-down positioning. Follow the exact position, hours, breaks, and duration given by the surgeon; do not copy a generic online schedule or another patient's instructions. [13]

In the PostRD randomized trial, 262 adults with fovea-involving RRD and central visual loss within 14 days were assigned after primary vitrectomy and gas surgery to face-down or support-the-break positioning for the first 24 postoperative hours. Among 239 analyzed participants, immediate face-down positioning reduced measured retinal displacement at six months (42% versus 56%), but visual acuity and measured distortion did not differ. Compliance was not monitored, and the modified intention-to-treat analysis excluded patients with redetachment or failure to attach the macula. This narrow result does not establish universal face-down recovery or a schedule beyond the first 24 hours studied. [19]

Ask for help promptly if arthritis, breathing problems, reflux, obesity, pregnancy, neuropathy, pressure sores, anxiety, or disability makes the position difficult or unsafe. The team can assess equipment, breaks, or a modified plan. Do not silently abandon or improvise the position.

Early redness, grittiness, mild-to-moderate discomfort, and very blurred vision can be expected after some procedures. Use drops, shield, hygiene measures, and pain medicines exactly as directed. Avoid rubbing the eye. Heavy lifting, straining, vigorous exercise, swimming, contact sports, and work restrictions vary; obtain written dates or clinical milestones rather than assuming one universal recovery week. [6] [18]

Do not drive home after a procedure or drive with a gas bubble. Resume only when the ophthalmologist says the eye is clinically ready, vision meets local legal requirements, depth perception and field are adequate, and sedating medicines no longer impair you. Legal eligibility and practical safety are separate: meeting a chart threshold does not ensure comfortable braking, night vision, or compensation when one eye is limited. Jobs involving driving, machinery, heights, dust, heavy labor, or caregiving may need tailored restrictions.

When recovery needs urgent reassessment

The retina service should provide a 24-hour contact route and instructions for nights or weekends. Contact it immediately for:

- a sudden reduction or new worsening of vision;
- a new curtain, shadow, shower of floaters, or flashes in either eye;
- severe or increasing pain, especially pain not controlled as instructed;
- increasing redness, marked swelling, or concerning discharge;
- nausea or vomiting with eye pain or visual decline;
- loss of the expected bubble appearance together with a vision change, or any symptom the surgical team identified as urgent.

If the service cannot be reached, use an eye emergency service or emergency department. Do not wait for the next booked visit. Pain can signal high pressure, infection, inflammation, or another complication; retinal redetachment itself may remain painless. [6] [12]

Attend every follow-up even when vision seems better. The team checks attachment, pressure, inflammation, break treatment, bubble or oil status, cataract, and PVR. Current AAO guidance recommends re-examination in 4–6 weeks after symptomatic PVD with no break and no high-risk features when symptoms remain stable. Vitreous or retinal hemorrhage requires earlier review—generally in 1–2 weeks depending on severity, and often weekly while vitreous hemorrhage obscures the view. The ophthalmologist sets the actual interval from the examination findings. Any new or increasing flashes, floaters, field loss, curtain, or reduced vision requires immediate reassessment rather than waiting for that visit. [2]

The fellow eye deserves dilated assessment and its own plan, particularly with high myopia, lattice, inherited disease, or previous detachment. Preventive laser may be appropriate for selected lesions but is not a guarantee. Continue routine care after the acute episode and keep the emergency symptom rule for life.

Practical preparation for patients and caregivers

Emergency retinal care moves quickly, and vision loss makes logistics harder. A companion can help without delaying treatment:

- arrange transport and bring sunglasses for dilation;
- bring medicine and allergy lists, prior eye surgery details, and contact information for the eye team;
- write down which eye, symptom onset, progression, trauma, myopia, cataract surgery, diabetes, and prior tears;
- ask the team to mark instructions as right eye or left eye rather than relying on memory;
- record the procedure name and whether air, gas, or silicone oil was used;
- obtain positioning diagrams, drop schedules, emergency numbers, follow-up dates, and work/travel restrictions in writing;
- set alarms for drops and help maintain safe walking routes while depth perception is poor;
- plan meals, pet care, childcare, sleeping arrangements, and positioning equipment;
- place the gas warning card where emergency responders will find it and add the alert to a phone medical ID.

During an emergency, questions should not delay care. Once the plan is underway, useful questions include:

- Is this a PVD, a retinal tear, rhegmatogenous detachment, tractional detachment, exudative detachment, or a combination?
- Where are the breaks, how much retina is detached, and is the fovea/macula attached?
- What makes the proposed procedure a better fit than pneumatic retinopexy, buckle, vitrectomy, or a combination?
- What are the chances of attachment after one procedure and after additional treatment? What visual recovery is realistic?
- Was gas, air, or silicone oil used? What is its name, and how will complete resolution be confirmed?
- What exact position is required, for how long, and what should I do if I cannot tolerate it?
- When may I fly, cross mountains, exercise, work, drive, sleep normally, shower, and resume medicines?
- What symptoms require an immediate call, and which number works after hours?
- What is the PVR or recurrence risk in this eye? What examination and follow-up does the other eye need?

Frequently Asked Questions

Can retinal detachment happen without pain?

Yes. It is commonly painless. Flashes, a sudden increase in floaters, a shadow or curtain, or sudden blurred/missing vision requires immediate emergency assessment even in a white, comfortable eye. [1]

If a floater moves when I move my eye, does that rule out a tear?

No. Floaters characteristically move, and a new moving floater can occur with uncomplicated PVD, a retinal tear, or vitreous bleeding. Symptoms cannot make the distinction reliably; a dilated retinal examination is required. [3] [2]

What if I was examined recently and told the retina looked normal?

A normal examination is reassuring for that time, but some tears develop later as the vitreous separation evolves. New, increased, or worsening flashes, floaters, a shadow, curtain, blur, or field loss requires immediate repeat examination. Do not wait for a scheduled follow-up. [2]

Does high myopia mean I will have a retinal detachment?

No. Higher axial myopia increases risk, but it does not make detachment inevitable or prove the cause in an individual. Most myopic people never have a detachment. The practical response is regular eye care appropriate to risk and emergency assessment of new warning symptoms.

Can OCT rule out a retinal tear?

No. OCT is excellent for cross-sectional macular detail and can help establish whether central retina is involved. A standard macular scan does not adequately search the far peripheral retina. Dilated ophthalmoscopy remains central; ultrasound helps when the view is obscured but can also miss small tears. [2]

Can laser alone repair a retinal detachment?

Laser or cryotherapy can surround selected retinal tears while adjacent retina is attached and is also used as part of detachment surgery. An established rhegmatogenous detachment usually needs a strategy—gas, buckle, vitrectomy, or a combination—to return and hold the retina against the eye wall. Tractional and exudative detachments require cause-specific treatment. [6]

Which repair has the best success rate?

There is no universal best operation. Trials show different tradeoffs by break location, lens status, complexity, and outcome definition. In the selected PIVOT configuration—one break or grouped breaks within one clock hour in detached retina above the 8- and 4-o'clock meridians—pneumatic retinopexy had lower single-procedure attachment than PPV but similar final attachment after additional treatment, slightly better average visual outcomes, and less cataract surgery. Those findings do not apply to every detachment. [7]

If the macula is already off, is there less urgency?

No. A macula-off detachment is still urgent. More retina can detach, and earlier repair may support better outcomes. Seek care immediately and let the retina surgeon set timing; do not calculate a safe delay from online time windows. [5]

When can I fly after a gas bubble?

Only after the bubble is completely absorbed and your ophthalmologist has explicitly cleared flight. Never fly while even a small bubble remains. Do not self-clear based on a number of weeks or a travel date. Ask about mountain routes and altitude too. [10] [13]

Why must I mention the bubble before dental work or anesthesia?

Nitrous oxide—including dental sedation and Entonox/Equanox “gas and air”—can rapidly enlarge an intraocular gas bubble and cause irreversible blindness. Tell every clinician, dentist, anesthetist, paramedic, and emergency team; carry a gas card or medical alert. Other necessary care can proceed with an appropriate non-nitrous plan. [11]

Is silicone oil the same as gas for travel?

No. Silicone oil is not an expansile gas and is not naturally absorbed, so gas-expansion rules are distinct. However, silicone oil has its own complications and postoperative restrictions. Confirm exactly what is in the eye and obtain the surgeon's travel clearance rather than assuming travel is unrestricted. [12] [18]

Does successful reattachment mean vision will return to normal?

Not necessarily. Anatomic attachment and functional vision are different outcomes. Macular involvement, duration, preoperative vision, PVR, cataract, and other eye disease all matter. Improvement may continue for months, but permanent blur, distortion, field loss, or reduced acuity may remain. [4]

Can another tear or detachment happen after treatment?

Yes. New tears, incomplete sealing, PVR, or recurrent detachment can occur, and the fellow eye may also be at risk. Keep every follow-up visit and use the same emergency symptom rule after laser or surgery: new flashes, increased floaters, a curtain, or worsening vision means immediate contact.

Evidence and limitations

This guide prioritizes current National Eye Institute, American Academy of Ophthalmology, and American Society of Retina Specialists guidance; randomized procedure trials; a timing meta-analysis; and professional postoperative safety material. Comparative surgical trials enrolled defined populations and should not be generalized to anatomy they excluded. Timing evidence is observational and susceptible to baseline differences. Approximate success and risk figures describe groups, not individual outcomes. Recovery instructions from the operating retina team supersede general examples in this guide.

If warning symptoms are happening now, stop reading and seek emergency eye care immediately.

Sources

1. Retinal Detachment

National Eye Institute, National Institutes of Health | 2025-11-05 | government patient guidance

<https://www.nei.nih.gov/eye-health-information/eye-conditions-and-diseases/retinal-detachment>

2. Posterior Vitreous Detachment, Retinal Breaks, and Lattice Degeneration Preferred Practice Pattern

American Academy of Ophthalmology | 2024-09-13 | professional clinical guideline

<https://www.aao.org/Assets/7d362287-0a40-430a-9fe7-fd4380521216/638748028775430000/pvd-retinal-breaks-and-lattice-degeneration-ppp-pdf>

3. Retinal Tears

American Society of Retina Specialists | accessed 2026-03-17 | specialist society patient fact sheet

<https://www.asrs.org/patients/retinal-diseases/26/posterior-vitreous-detachment>

4. Retinal Detachment

American Society of Retina Specialists | 2025 | specialist society patient fact sheet

<https://www.asrs.org/patients/retinal-diseases/6/retinal-detachment>

5. Impact of the Time to Surgery on Visual Outcomes for Rhegmatogenous Retinal Detachment Repair: A Meta-Analysis

American Journal of Ophthalmology / PubMed | 2022-12 | meta-analysis of 20 observational studies

<https://pubmed.ncbi.nlm.nih.gov/35932819/>

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National Eye Institute, National Institutes of Health | 2024-12-06 | government patient guidance

<https://www.nei.nih.gov/eye-health-information/eye-conditions-and-diseases/retinal-detachment/surgery-retinal-detachment>

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Ophthalmology / PubMed | 2019-04 | randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/30468761/>

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Ophthalmology / PubMed | 2007-12 | multicenter randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/18054633/>

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Cochrane | 2019 | systematic review

<https://www.cochrane.org/evidence/CD009562comparison-surgical-interventions-retinal-detachment>

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American Academy of Ophthalmology | 2026-07-06 | expert-reviewed patient guidance

<https://www.aao.org/eye-health/tips-prevention/can-i-fly-with-this-eye>

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Royal College of Ophthalmologists | 2018-12 | professional safety alert

<https://curriculum.rcophth.ac.uk/2018/12/ophthalmic-safety-alert-use-of-nitrous-oxide-when-there-is-gas-in-an-operated-eye/>

12. Vitrectomy Surgery

Gloucestershire Hospitals NHS Foundation Trust | 2025-02 | hospital patient guidance

<https://www.gloshospitals.nhs.uk/your-visit/patient-information-leaflets/vitrectomy-surgery>

13. Positioning After Retinal Surgery

American Academy of Ophthalmology | 2025-12-08 | expert-reviewed patient guidance

<https://www.aao.org/eye-health/treatments/face-down-recovery-after-retinal-surgery>

14. Vitreous Detachment

National Eye Institute, National Institutes of Health | 2024-12-04 | government patient guidance

<https://www.nei.nih.gov/eye-health-information/eye-conditions-and-diseases/vitreous-detachment>

15. Types and Causes of Retinal Detachment

National Eye Institute, National Institutes of Health | 2024-12-06 | government patient guidance

<https://www.nei.nih.gov/eye-health-information/eye-conditions-and-diseases/retinal-detachment/types-and-causes-retinal-detachment>

16. Complex Retinal Detachment

American Society of Retina Specialists | accessed 2026-03-17 | specialist society patient fact sheet

<https://www.asrs.org/patients/retinal-diseases/34/complex-retinal-detachment>

17. Primary Pars Plana Vitrectomy versus Scleral Buckle Surgery for the Treatment of Pseudophakic Retinal Detachment

Retina / PubMed | 2005-12 | randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/16340523/>

18. Vitrectomy Surgery

Hull University Teaching Hospitals NHS Trust | 2024-06-30 | hospital patient guidance

<https://www.hey.nhs.uk/patient-leaflet/vitrectomy-surgery-2>

19. Effect of Face-Down Positioning vs Support-the-Break Positioning After Macula-Involving Retinal Detachment Repair

JAMA Ophthalmology / Europe PMC | 2020-06 | randomized clinical trial

<https://europepmc.org/article/MED/32297923>