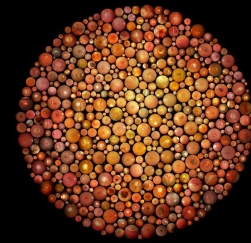


Posterior Vitreous Detachment (PVD)

Patient Information Leaflet

RETINA



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KEY POINTS

- Posterior vitreous detachment (PVD) is the separation of the gel inside the eye (the vitreous) from the retina at the back of the eye - a normal age-related change.
- The most common symptoms are sudden new floaters, flashing lights, or both.
- It typically affects people over 50, earlier in those who are short-sighted or have had cataract surgery, and the fellow eye usually follows within months to a year or two.
- In about 9 in 10 people, PVD settles uneventfully and no treatment is needed.
- In a minority, the separating vitreous causes a retinal tear, retinal detachment, or bleeding inside the eye - these need urgent treatment.
- Any sudden increase in floaters or flashes, a new shadow or curtain, or a sudden loss of vision should be assessed urgently.

SEEK URGENT ASSESSMENT IF YOU NOTICE

- A sudden increase in floaters, especially a "shower" of small black spots
- New or worsening flashing lights
- A dark shadow, curtain, or veil moving across part of your vision
- A sudden drop in vision

These can indicate a retinal tear, retinal detachment, or bleeding inside the eye, all of which need prompt assessment. Contact my secretary on **01273 782500**, your optometrist, or attend the eye casualty service at Sussex Eye Hospital (Eastern Road, Brighton, BN2 5BF) without delay.

What Is the Vitreous?

The inside of the eye is filled by a clear jelly called the vitreous. In youth, the vitreous has a uniform gel-like consistency and is gently attached to the surface of the retina at the back of the eye. With age, the vitreous slowly liquefies and shrinks, and at some point separates cleanly from the retina. This separation is called a posterior vitreous detachment (PVD).

Who Gets a PVD?

PVD is very common. By the age of 70 it has occurred in around two-thirds of people; by 90 in nearly all. It typically begins in the late 50s and 60s, and tends to happen earlier in:

- People who are short-sighted (myopic), particularly those with a strong prescription
- People who have recently had cataract surgery - the change in the eye after surgery often brings forward a PVD that was already due, sometimes by months or a few years
- People who have had eye trauma
- People who have had previous intraocular surgery

If you have noticed new floaters or flashes weeks or months after an otherwise straightforward cataract operation, this is usually the explanation - it is not a sign that anything has gone wrong with the surgery.

PVD almost always happens in both eyes, although usually some months to a year or two apart. Once one eye has gone through it, the other tends to follow.

Symptoms

The most common symptoms of an acute PVD are:

- **New floaters** - small dots, threads, cobwebs, or a single ring-shaped floater (a "Weiss ring") that drifts across your vision and moves when you move your eyes. They are often most noticeable against a plain pale background such as a wall or sky.
- **Flashing lights** - arcs of light, particularly in the side of your vision and most noticeable in dim or dark conditions or with eye movement. They are caused by gentle traction on the retina as the vitreous separates.

Some people develop a PVD without any symptoms at all and only learn of it when their optometrist mentions it. Others have a more dramatic onset with prominent floaters and flashes for several weeks before things settle.

Will It Settle?

In most cases, yes. As the brain adapts and the floaters drift out of the central line of sight, they become much less intrusive. Flashing lights typically settle over a few weeks. Floaters tend to persist but become progressively easier to ignore over the months that follow. Most people are no longer troubled by them after three to six months, although a few find that some floaters remain bothersome longer term.

What Are the Risks?

In around 9 in 10 people, PVD is harmless and resolves without complications. The risk of a tear or detachment is higher in those who are short-sighted, have had recent cataract surgery, or have had a tear or detachment in the other eye. The most important complications to recognise are:

- **Retinal tear** - as the vitreous separates, it can pull a small tear in the retina at the point of strongest adhesion. A tear is treatable with laser in clinic.
- **Retinal detachment** - if a tear is missed or untreated, fluid can pass through it and lift the retina away from the back wall of the eye. This is a sight-threatening emergency requiring surgery.
- **Vitreous haemorrhage** - the separating vitreous can occasionally tear a small retinal blood vessel, causing bleeding into the gel. This shows up as a sudden shower of dark floaters or, if more substantial, as a marked drop in vision.

What Will My Assessment Involve?

If you are referred urgently with new flashes or floaters, the priority is to confirm a PVD and rule out a retinal tear or detachment. I will measure your vision, examine the front and back of your eye after dilating drops, and arrange OCT imaging of the retina. A careful examination of the retinal periphery is essential, as small tears can otherwise be missed.

If a retinal tear is found, this can usually be treated immediately or within a day or two with laser in the clinic. If everything looks reassuring at first assessment, I will arrange a further review at four to six weeks - the period during which delayed tears most commonly appear - and ask you to come back sooner if symptoms change in the meantime.

Treatment of a Retinal Tear

If a retinal tear is identified, prompt treatment is needed to prevent it progressing to a retinal detachment. The standard treatment is laser retinopexy - a quick outpatient procedure performed in clinic. Eye drops dilate the pupil and numb the surface of the eye, and the laser is delivered through a contact lens placed gently on the eye to create a ring of small burns around the tear. As these heal over the following one to two weeks, they form a scar that seals the retina to the underlying tissue and prevents fluid from passing through.

The procedure typically takes a few minutes and is well tolerated. You may experience brief discomfort during the laser and some mild ache afterwards, but no anaesthetic injection is needed. Vision may be blurred for a few hours from the dilating drops, so please arrange not to drive yourself home.

Laser retinopexy is highly effective when applied promptly, and most retinal tears treated in this way do not progress. Until the laser scar has fully matured, however, it is important to remain alert to the warning symptoms of a retinal detachment listed at the start of this leaflet.

Floater Surgery

For the small number of patients in whom floaters remain genuinely intrusive months after a PVD has settled, surgery to remove the vitreous (vitrectomy) can be considered. This is not first-line treatment - the operation carries small but real risks and is reserved for cases where floaters significantly affect daily life after a period of adaptation. Where this is being considered, I will refer you to a vitreoretinal surgeon.

Follow-up

Most patients with a straightforward PVD do not need long-term follow-up after the initial review period. The fellow eye will, in most cases, also develop a PVD at some point in the following months or years - the same urgent advice applies if symptoms appear in the other eye. The single most important thing is to know what to look out for and seek urgent review promptly if you do.