

Flashing Lights & Floaters

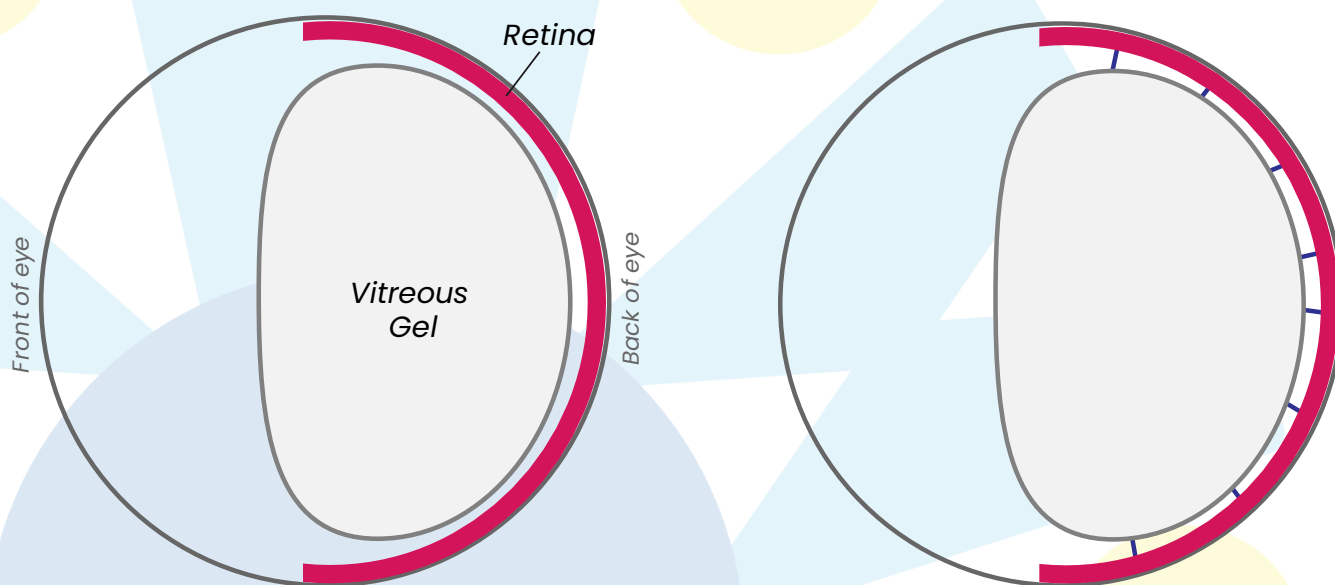
Posterior Vitreous Detachment (PVD)

Your history and examination findings are in keeping with a diagnosis of posterior vitreous detachment. This is a very common condition.

What is it?

The inside of your eyeball is coated with a thin layer of light sensitive tissue called “retina”. The retina attaches to the inner wall of your eye like wallpaper. Light entering your eye stimulates the retina, which generates electrical signals that your brain can interpret as vision.

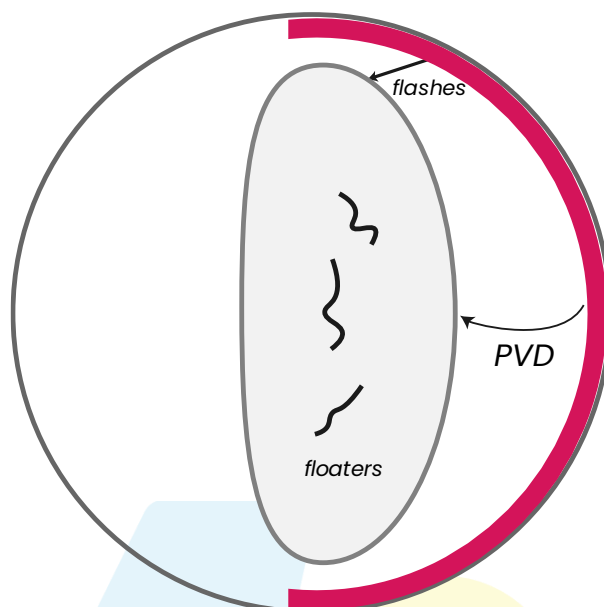
Immediately in front of the retina, lives a ball of transparent gel called “vitreous”.



The back end of the gel (posterior vitreous) has attachments to multiple points on your retina.

At birth, the vitreous is a firm structure, and keeps its shape no matter how much the eye or head are moved.

As we grow older, the gel disintegrates into a liquid, a process called vitreous liquefaction. As the gel weakens, it naturally begins to peel forward, away from the retina. The end point of this process is a posterior vitreous detachment (PVD); the complete separation of the back end of the gel from the retina.



How will it affect me?

As the vitreous gel transforms into a liquid, the solid particles of gel begin to swim around in their liquid surroundings. These “floaters” cast dark, mobile shadows onto the retina (and hence your vision), and can take on many shapes: dots, blobs, strings, spider legs, meshwork etc.



As the liquefied vitreous begins to peel off the retina (PVD), two symptoms can occur.

1. You may develop a sudden new shower of **floaters**, due to the acute reconfiguration of the vitreous gel.
2. As the vitreous peels away, traction is applied at the points of attachment between the retina and gel. This traction stimulates the retina, which you experience as split-seconds of pin-point **flashing lights**.

Once the gel has completely peeled away from the retina, a process that may take days to months, the flashing lights will subside. The floaters however, will persist long term. You may notice them more on certain days, particularly against uniform, light coloured backgrounds (walls, the sky).

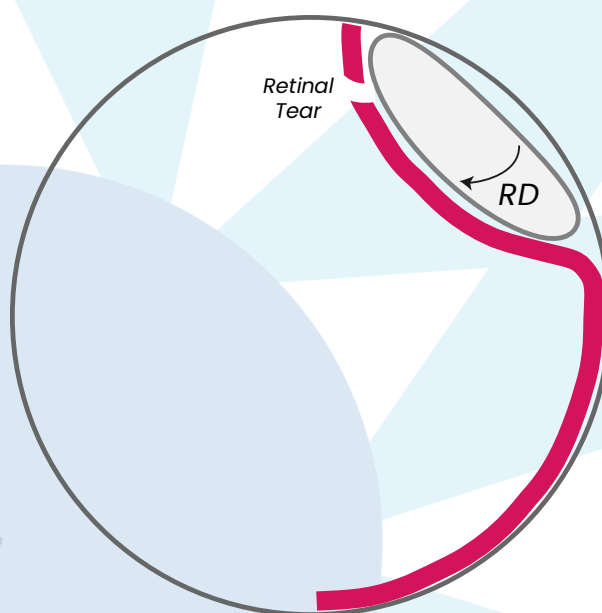
Can it be treated?

While floaters are an inconvenience, they do not cause long term vision loss, and usually do not require treatment. The good news is that your brain adapts to ignore their presence, and they will become less noticeable over the coming months.

Can anything go wrong?

PVD is very common after the age of 50 and 2/3 of people will have developed it by age 70. Most people are just inconvenienced by the transient flashing lights and long-term floaters.

However, in 10% of patients, the traction from the gel on the retina can lead to a retinal break/tear. In itself, this causes no other symptoms, but over the following few days, fluid from the vitreous seeps into the space between the retina and the eyeball through the tear. This causes peeling of the retina off the inside of the eyeball, a process known as “retinal detachment (RD)”.



The areas of detached retina lose vision. As most retinal tears don't occur in the centre, retinal detachments cause a curtain like loss of peripheral vision, that slowly extends towards the centre of vision over the coming days. Retinal tears can be treated with laser to minimise the risk of detachment. Retinal detachment must be treated surgically.

What should I look out for?

At the onset of PVD symptoms (flashing lights, floaters), it is advisable to have a retinal examination by an optometrist or ophthalmologist to rule out a retinal tear or detachment. Once the safety of the retina has been confirmed, scheduled repeated retinal examinations are not required.

The best guide to further problems is the development of new symptoms, which should prompt a swift repeat retinal examination.

When to seek further advice?

You should seek a repeat retinal examination if you develop any of the following:

1. A new shower of floaters, different to your current ones.
2. A new onset of ongoing flashing lights.
3. A curtain like loss of your peripheral vision. This is best tested by looking straight ahead, **covering your other eye**, and ensuring you can see 360 degrees peripherally as you continue to look straight ahead.

Normal field of vision



Curtain like loss of peripheral vision



This is particularly important for people with the following risk factors for retinal detachment:

- Previous or family history of retinal detachment.
- Short-sightedness (myopia). This is a minus power glasses prescription. The stronger the prescription, the higher the risk of retinal tear/detachment.
- Recent trauma to the eye.

For advice, can contact the Emergency Eye Department at the Manchester Royal Eye Hospital if you have been seen there within the past four weeks via the hospital switchboard (0161) 2761234.