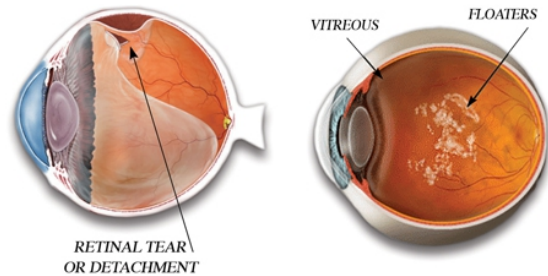


Floaters are a common complaint and so are flashes though to a lesser extent. Depending on the cause the two may occur separately or together. It is very difficult, to determine whether they arise out of the more common and benign causes or due to one of the less common and dangerous causes. Hence all patients experiencing these symptoms need a thorough retinal examination.



### What are flashes?

Otherwise known as 'photopsia', flashes describe the sensation of seeing a flash of light in the absence of a stimulus. This may present as dancing lights, an arc of light or a feeling like a light-bulb has just flashed on and off in the periphery of vision. Flashes are caused by improper stimulation of the eye's retina, or the optic nerve, which the brain interprets as light. Flashes are more often noticed at night or in a dark room and are seen even if the eyes are closed.

### What causes flashes?

#### Retinal traction:

The vitreous is the thick jelly like substance occupying most of the globe. It is mostly loosely attached to the retina but in some parts, it is more firmly adherent. Any condition which causes it to contract has the potential to result in flashes. This is because such a process creates a pull on the retina. Such conditions include:

1. Age related degeneration of the vitreous with 'posterior vitreous detachment' is by far the commonest cause.
2. Vitreous degeneration and detachment due to other causes (following trauma, inflammations, surgery, myopia).
3. Retinal detachment
4. Diabetic retinopathy
5. Others

The jelly like vitreous is seen to be detaching posteriorly from the upper retina as part of the normal aging process of 'Posterior Vitreous Detachment'

### Posterior Vitreous Detachment

A natural aging process causes the vitreous to shrink and collapse and separate from the retina. This is known as a posterior vitreous detachment. When this occurs it is sometimes quite sudden causing 'floaters' or 'cobwebs' to appear in the vision. The patient will often notice an associated flashing light at the side of the vision. The light may be quite dim so that it is seen most easily in the dark. The flashes persist for a few weeks and stop. With time the floaters may disappear or patients may learn to ignore them. In patients where this process is very gradual they may not notice flashes or floaters in spite of a posterior vitreous detachment.

### Flashes and migraine

Flashes can also occur in association with migraine headaches. A migraine is caused by a spasm of blood vessels in the visual information center of the brain. Migraine related flashes distort central vision for ten to twenty minutes and appear as jagged lines or "heat waves" in both eyes.

### How are flashes treated?

Unless they represent the symptoms of a more serious condition, flashes do not require treatment. Flashes, which are a result of vitreous pulling away from the retina, will eventually stop. However, flashes may indicate retinal tears or detachment, which needs immediate medical treatment. Migraines, which are often accompanied by flashes, can be treated with medical therapy if they occur frequently and are debilitating.

### Floaters

Floaters are opacities that appear and 'float' about in the field of vision. They are of myriad shapes and are often described as 'cob webs' 'flies or mosquitoes'. When the eye is moved the floaters move too. They are better visible against a white background or sunlight. They are due to opacities within the clear vitreous jelly.



### What causes floaters?

There are a number of causes of floaters:

1. Most commonly they are because of opacities in the vitreous jelly called 'muscae volitantes' found in normal people especially myopes (short sighted).
2. Vitreous condensations – these are normal degenerative changes associated with age, resulting in translucent opacities within the transparent jelly like vitreous.
3. Posterior vitreous detachment
4. Vitreous hemorrhage -minor bleeds are seen as 'spots' in the vision but major bleeds result large spots along with a severe decrease in the visual acuity.
5. 'Vitritis' – inflammatory cells in the vitreous due to intermediate or posterior uveitis.
6. Asteroid hyalosis – a (usually benign) condition characterized by small yellow/white paracles scattered throughout the vitreous.
7. Other rarer causes are Amyloidosis – sheet-like opacities, Tumors – (e.g. lymphoma).

### Are floaters ever serious?

All patients with floaters should have a detailed examination of the retina to rule out the more serious causes. Also sometimes, retinal tissue may be torn as the vitreous shrinks and pulls away from the retina. Retinal tears require immediate medical attention to prevent retinal detachment. If the retina detaches from the back of the eye, partial or total loss of vision may occur. A tear through a small blood vessel in the retina may cause bleeding. Clotted blood and vitreous material may appear as a new set of floaters.

### How are floaters treated?

Although annoying, floaters are usually not vision threatening and do not require treatment. Often floaters diminish and become less bothersome with time. If a floater appears directly in the line of vision, moving the eye around will often help. Looking up or down or back and forth will cause the vitreous fluid to swirl around and often allows the floater to move out of the way. However, with a complete eye examination it can be determined if the floaters are harmless or the beginning of a more serious problem.



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# Floaters & Flashes