

#### What are floaters?

The term "floaters" refers to the shadows and shapes that some people can see drifting across their vision. Floaters can take a variety of appearances such as small black dots, short squiggly lines, or even large cobweb shapes. Short-sighted people tend to experience floaters more commonly. Floaters also increase as we get older.

# Vitreous gel Optic nerve Macula Fovea Retina

What causes floaters?

Image Source: National Eye Institute

The vitreous is the gel-like transparent substance in the back of the eye.

As we get older, the vitreous becomes more liquid. Any remaining solid debris in the vitreous casts shadows onto the retina, which we see as floaters.

## **Posterior vitreous detachment (PVD)**

A posterior vitreous detachment is a natural age-related change in the eye, where the vitreous gel peels away from the retina. This



occurs in 70% of people by the age of 70. People with a new PVD often are aware of a cobweb or net curtain-like floater that can be quite intrusive at first.

Inflammation in the eye is a rare cause of floaters.

#### What are the risks of floaters?

Floaters due to a PVD are harmless, although occasionally annoying. They usually become much less obvious with time as the brain adjusts to the change and eventually filters them out.

In rare cases, a PVD causes a tear in the retina, which may progress to a retinal detachment. This uncommon event occurs in approximately 1 in 10,000 people per year.

A tear in the retina causes a sudden increase in small dot-like floaters, and flashes of light in the peripheral vision. The flashes are usually persistent in daylight. Some people also notice a curtain effect coming in from their peripheral visual field. If you notice these symptoms, you should seek urgent attention by an eye doctor.

## What are the Treatment options?



Usually floaters are not treated, because they are harmless and do not cause significant visual problems. Surgery to remove floaters is an option for people who have very severe floaters or who have great difficulty adapting to them.

## What are the risks of surgery?

Surgery for floaters is called vitrectomy. The most common side effect of vitrectomy is development of cataract (cloudiness of the lens) at an earlier stage than it would have done otherwise. Rarely, cataract may occur immediately after vitrectomy surgery, but more commonly this may come on 2-3 years after the operation. Further surgery is needed to treat cataract.

The most severe complication from vitrectomy is blindness in the eye. This may be due to a severe bleed during surgery or an infection in the eye after the operation. This is an extremely rare occurrence (approximately 1 in every 1000 cases) but it is important that patients are aware that there is a small chance that it could happen.

About 1 in 50 patients develop a retinal detachment after the surgery. In this situation, further surgery is required to reattach the retina, which can sometimes lead to reduced vision in the eye afterwards.



For most people, the risks of vitrectomy surgery outweigh the benefit of removing floaters. For this reason, surgery for floaters is not usually recommended.

#### Where can I find more information?

Further information can be found at the following websites:

http://www.nei.nih.gov/health/floaters/index.asp http://www.moorfields.nhs.uk/Eyehealth/Commoneyeconditions /Floaters http://www.nhs.uk/conditions/Floaters/Pages/Introduction.aspx http://en.wikipedia.org/wiki/Floaters

#### **Scientific Evidence**

The advice in this booklet is based on a variety of sources, including latest research published in peer-reviewed scientific journals. It has also been scrutinized by a panel of experts from the Britain & Eire Association of Vitreoretinal Surgeons ("BEAVRS"). If you require further information about this, please ask your surgeon.

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