

## Posterior Vitreous Detachment (PVD)

### **What is a vitreous detachment?**

The vitreous is a jelly-like substance between the lens and the retina that makes up most of the volume of the eye. Usually, the vitreous gel is loosely attached to the surface of the retina. However, the vitreous can detach or separate from the retina by condensing or collapsing. This separation of the vitreous is a normal event that will happen to most people.

### **What are the symptoms of a vitreous detachment?**

Sometimes this happens slowly and it is hardly noticed. Often there are flashes of light and the appearance of floaters in the vision. Whenever the retina is stimulated, it records this as light falling on the retina – hence the flashes. The floaters represent condensations of protein that once were near the surface of the retina. With the collapse of the vitreous gel, clumps of this protein are suspended in front of the retina, causing a shadow to be cast on the light-sensitive retina by light entering the eye.

### **Is this dangerous? Is it related to retinal detachment?**

Vitreous detachment in itself is not a threat to vision. Sometimes, however, if the vitreous is more strongly attached to the retina in one or more locations, the retina can be torn when the vitreous gel collapses. If a retinal tear occurs, fluid from the vitreous cavity can move through the tear, separating the retina from the other layers of the eye and causing a retinal detachment, a dangerous condition requiring surgery.

### **How do I know if I have a vitreous or retinal detachment?**

Both of the symptoms of vitreous detachment, flashes of light and floaters, may also be seen with retinal detachment. However, one other symptoms of retinal detachment is never seen with vitreous detachment only. That is the sensation that a dark curtain or windowshade is being pulled across the eye. If a dark area in vision or the appearance of *new* flashes or floaters are noticed, a prompt retinal examination is important.

### **What can be done about the irritating floaters or flashes?**

While they can be a nuisance, no eye drops or medications can dissolve floaters, and surgery is usually not indicated. With gravity they tend to sink down out of the line of sight, and usually become less noticeable with time, although this process usually takes weeks and months to improve. There is nothing that can be done about the flashes, although they usually diminish over time.

## Symptoms of a Retinal Detachment and Tear

The retina is the critical inside lining to the back of the eye that senses light and sends images to the brain. Occasionally, people develop a tear in the retina or the retina actually becomes detached from the inside of the eye. If this happens, it's not an immediate emergency to call 911 or to panic about. It is important to be seen within the first 24-48 hours if you have any significant symptoms of a retinal detachment or tear.

It is important to be aware of the following symptoms:

**Flashing lights** – These are usually described as small flashes of light located in one eye only. The flashes of light usually persist in one location. They are different from an ophthalmic migraine. When people have the acute onset of flashing lights, often multicolored lights, they can last for 15-45 minutes at a time then go away completely.

**Floaters** – Most people have a few floaters in their vision now and then. The types of floaters that usually indicate a problem with the retina occur with a sudden appearance of many floaters (usually tens or hundreds). These are small dots in either eye.

**Curtain** – This is the most serious of retinal symptoms and will show a partial curtain or shadow that may block the vision in one eye.

If you have any of these classic symptoms, you may have a retinal problem; you should be evaluated within 24-48 hours. **These symptoms will rarely be subtle**, but any symptoms of flashes of light, change in floaters, or a curtain effect that does not match the above symptoms should be discussed with your ophthalmologist as soon as possible.