Basic Anatomy

The eye works like a camera. The lens system in the front of the eye (cornea, pupil and lens) focuses light onto the back of the eye, the retina. The retina is the inner lining of the eye and works like the film in a camera; it senses light and allows you to see by transmitting this information to your brain where it is interpreted as images. The middle of the eye is filled with a clear, jelly-like substance called vitreous. The vitreous and retina are normally in contact with each other.

What are flashes and floaters?

You may sometimes see small specks, lines or clouds moving in your field of vision. When these are inside of your eye they are called floaters. When the vitreous degenerates or detaches, floaters can develop and are usually due to tiny clumps of cells or connective tissue moving within your eye. When the retina is irritated or disturbed you may see what look like flashes or streaks of light. For example, if the retina develops a tear or a detachment you may see a shower of floaters and flashes.

Possible Causes of Floaters or Flashes

- Posterior vitreous detachment
- Retinal tear or detachment
- Bleeding in the eye
- Inflammation in the eye
What is a Posterior Vitreous Detachment (PVD)?

A posterior vitreous detachment is not the same thing as a retinal detachment. A posterior vitreous detachment occurs when the vitreous gel separates from the retina which lines the back wall of the eye. PVD happens in most eyes as we age and tends to occur earlier in myopic eyes and after trauma or eye surgery. When a posterior vitreous detachment occurs, bleeding can also occur and the vitreous gel can pull holes or rip tears in the retina.

A retinal detachment occurs when the retina is separated from its underlying blood supply. This can occur when a retinal hole or tear allows fluid to pass behind the retina. This can be thought of as similar to when water gets under a sheet of wallpaper, it peels the wallpaper off of the wall. In many cases this is an emergency that requires urgent treatment.

What should I do about it and will I need treatment?

If you notice any new or concerning flashes or floaters, or any change in your vision, contact your eye doctor as soon as possible. Many times a posterior vitreous detachment will occur without complication and no treatment is necessary. In contrast, a torn or detached retina may require immediate treatment. You should be evaluated by an eye care specialist as soon as possible.