

## Why do I have Floaters and/or Flashes of light?

Your eye doctor may have diagnosed you with a Posterior Vitreous Detachment. What does this mean? Why do I see floaters and light flashes? Does this mean that I'm going to get a retinal detachment? You may have many questions.

This can be a very *scary* event especially if you've never seen floaters before. This handout attempts to answer common questions. We've created this analogy to help you better understand exactly what is happening inside of your eye:

Imagine being in a round room. This room is your *eye*. Inside the room, the walls are covered by wall paper. This wallpaper is your *retina*. The retina is the very important part of the back of your eye that *when activated by light* sends a message to your brain: "I see light."

Now, filling the room is a sticky, clear jelly. This jelly is the *vitreous* that fills the back of our eye. When we are young, this jelly is crystal clear. Unfortunately, as we get older, this jelly begins to change. It liquefies and essentially "shrinks" in size. Even though the jelly starts to shrink, the size of the room doesn't change (our eyeballs don't shrink). What used to fill the entire room no longer does so, and therefore, eventually, the jelly will start to peel off the wallpaper because the jelly is not large enough to fill the entire room.

A few things happen when the jelly starts to pull off the wallpaper. In many people, the wallpaper and jelly don't want to let go--after all, they've been attached for decades!!! The jelly "tugs" on the wallpaper (the retina) trying to let go. This tugging on the retina causes flashing lights. Why? Don't forget...whenever the retina gets "activated", it sends a message to your brain: "I see light." So as you read this, light is entering your eye and activating your retina-- you see light. However, *the vitreous tugging on the retina also activates it*, and so the exact same message is sent to your brain: "I see light." This is why you may see lights that no one else does (there wasn't any light!). It also explains why the flashing lights tend to be noticed more during the evening and night--because there is less "background noise" to cover up these unexpected activations of your retina.

Another thing can happen as the jelly pulls off the wallpaper. The back part of the jelly can lose its optical clearness. What used to be crystal clear, *isn't anymore*. Its floating around in the back of your eye. So as the light comes into your eye, it can hit this back part of the jelly and get blocked or distorted. This will create a "shadow" on your retina. Many people state that there is a "string" or a "fly" in their vision. You may notice that in bright light, the floaters are more noticeable (more prominent shadows) and in dim light the floaters can't be seen (you don't get shadows at night).

In many people, *this is all that happens*. The flashing lights eventually subside. The floaters improve over time but usually never go completely away.

So what is the danger?

In *some* people, the connection between the jelly and the wallpaper is very strong. While tugging to let go, the jelly can tear a small piece of the wallpaper. This tear in the wall paper (the retina) is known as a *retinal tear*. This is never painful, but it is very serious. With a hole in the wallpaper, fluid from inside the room can slowly travel through the hole, go behind the wallpaper, and detach the wallpaper. This is known as a *retinal detachment* and this can cause severe visual loss.

If a retinal tear is found, your eye doctor can perform laser treatment to the retinal tear to help prevent a retinal detachment. You can think of each laser shot as a small little “thumbtack”. By taking many thumbtacks and pinning them all around the hole in the wallpaper, the fluid that would normally enter through the hole and go behind the wallpaper can no longer do so. The retinal tear will never go away, but the retina won’t detach because the hole has been “sealed.” If the retina detaches, the thumbtacks no longer work. An eye surgery must then be performed, sometimes in the operating room.

What if your eye doctor doesn’t find a retinal tear? Are you going to be OK? More than likely, but just because no retinal tear is found does NOT mean that one won’t develop. That is why it is VERY important to pay special attention to your symptoms and be seen sooner with any significant change. Three important things to look for include:

- (1) Any increase in the number of floaters
- (2) Any significant increase in the duration or intensity of flashing lights.
- (3) Any large curtain or bubble in your peripheral vision that you can’t see around and that doesn’t float or move. This third symptom may mean that a retinal detachment is already starting--you should call your eye doctor immediately or go to the nearest emergency room for evaluation.

Other questions commonly asked:

*Will this happen to the other eye?*

Yes, eventually.

*How much risk do I have for a retinal tear?*

Approximately a 10% chance. People who are very myopic (near-sighted) and/or who have a family history of retinal detachment are among those at an increased risk for retinal tears.

*Can I get more than one retinal tear?*

Yes. Actually, its not uncommon. Each retinal tear needs treatment.

*Is there anything that can be done for these annoying floaters?*

Not really. As long as there is no retinal tear, the floaters are a “nuisance” problem, and not a serious visually-threatening one. They often improve with time.

*Is there anything I shouldn’t do to help prevent a retinal tear?*

Restrictions are not placed on patients who have posterior vitreous detachments.

*Does this handout apply to all floaters and flashes?*

Absolutely not. Your eye doctor will be able to determine the cause of your floaters or flashes of light. Inflammation inside your eye and migraines (without headache) are other common causes of floaters and flashes.