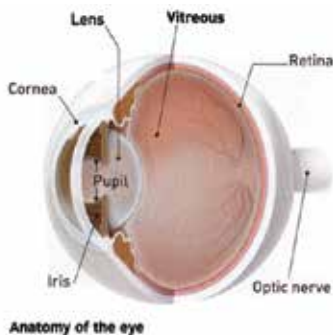




Retinal Detachments

What is a retinal detachment?

The retina is the light sensitive layer covering the inside of the back of the eye. It is analogous to the film in a camera. The retina has many layers. The rods and cones are in the layer that converts light to nerve impulses. The nerve impulses travel through the optic nerve to the brain where they are processed as vision. The bottom layer of the retina is the pigmented cell layer. Accumulation of fluid between the pigmented cell layer and the layer of rods and cones is called a retinal detachment. When retinal detachment is present, the fluid is called subretinal fluid and is in the sub-retinal space.



What causes retinal detachment?

There are three major types of retinal detachments. The most common type of retinal detachment is caused by a

retinal hole or tear (which together are called retinal breaks) that allows fluid to pass from the central vitreous cavity of the eye into the subretinal space. This is sometimes referred to as a rhegmatogenous retinal detachment.

The second type of retinal detachment is caused by stretching and tenting of the retina by scar tissue in the vitreous cavity or scar tissue in the subretinal space. This is called a traction retinal detachment and is seen most commonly in advanced diabetic retinopathy and can be a component of recurrent rhegmatogenous detachment.

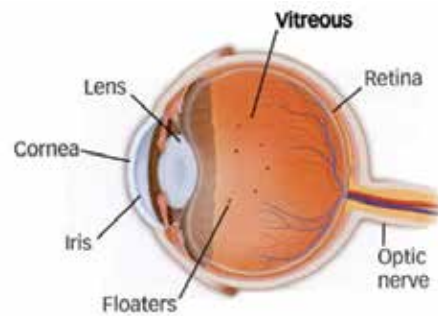
The third type of retinal detachment is caused by leakage of fluid into the subretinal space from the layer underneath the retina called the choroid. When this occurs without any retinal break present, the detachment is called an exudative detachment and is seen with tumors and other diseases of the layer underneath the retina called the choroid.

These pages will deal mainly with rhegmatogenous retinal detachments.

How do I know if I have retinal detachment?

The symptoms of a retinal detachment depend on how far it has progressed. Some patients are completely unaware of any symptoms, in which case an eye doctor usually discovers the retinal detachment during an examination of the retina. Retinal tears that cause a rhegmatogenous retinal detachment may cause the patient to see flashing

lights, which are usually much more noticeable in the dark. Bleeding from blood vessels broken during the retinal tear formation can cause floaters and smoky or hazy vision.



Although the floaters appear to be in front of the eye, they are actually floating in the vitreous fluid inside the eye.

Retinal breaks usually occur in the peripheral retina that corresponds to your side vision. When the retinal detachment begins to spread from a retinal break, you may notice a dark curtain in your side vision. Unlike the transparent-curtain effect that floaters sometimes cause, the curtain seen with a retinal detachment has a solid appearance and usually will remain the same after moving the eye around by looking in various directions. The curtain can be seen in the side vision, in the up, down, right, left or diagonal positions and usually has a curved border or edge. As the detachment enlarges further, it can spread through the center of the retina called the macula. This results in loss of reading vision and straight-ahead vision. As the detachment spreads further, the whole retina may detach, resulting in the patient only being able

continued on next page.