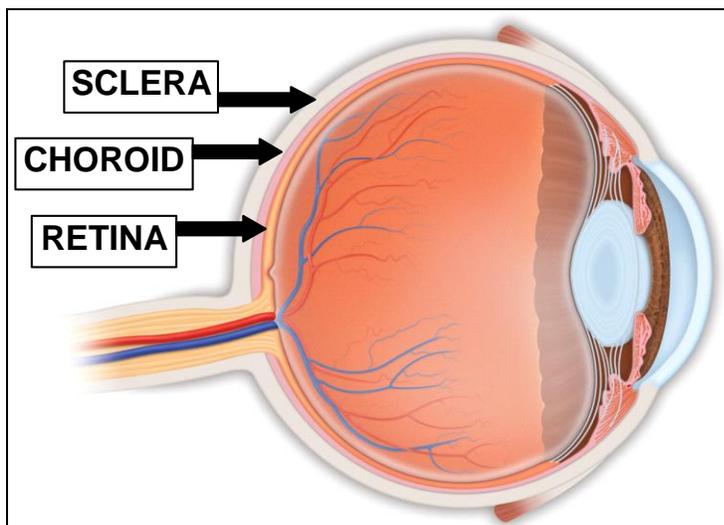


# What You Should Know About Choroidal Detachments

By David J. Browning, MD, PhD

The eye has a multilayered coat. The visible, tough white covering is called the sclera. Beneath the sclera is a layer of blood vessels and connective tissue called the choroid, which nourishes part of the next deeper layer, the retina. The retina is nervous tissue, which converts light focused on it into the signal traveling to the brain along the optic nerve. All of these tissues are illustrated in figure 1. A choroidal detachment is a condition in which fluid collects between the sclera and the choroid, producing a blister-like bulge of all the inner layers. This bulging blister causes symptoms of visual field loss for the patient and can be seen by the ophthalmologist examining the eye.

**Figure 1. Anatomy of the Eye**



## What Causes Choroidal Detachment?

Choroidal detachments are caused by many different conditions. The most common is a wound leak after surgery. Most eye surgeries are concluded by tightly suturing the wounds. In these cases, a choroidal detachment may mean a popped suture, or looser suturing than desired. In some eye surgeries, such as certain glaucoma procedures, the intent of the surgery is to produce a passage for fluid to exit the eye. In these cases, choroidal detachment is much more common and may even be considered an expected, but temporary effect. Choroidal detachments may occur after trauma if a rupture in the eye wall has occurred. Lastly, choroidal

detachments can also occur with ocular inflammations, called uveitis, in which the vessels of the choroid dilate and leak fluid into the potential space between the sclera and the choroid.

## **How Is a Choroidal Detachment Treated?**

The treatment for choroidal detachment will vary depending on the cause. For a post-operative choroidal detachment, lowering the production of eye fluids with a pill called Diamox, while pressure patching the eye, can cure many cases. This patching closes a leaky wound temporarily as healing and scarring take place. Similarly, applying a bandage contact lens to the eye for a few days can cure some cases. In post-operative wounds with more severe leaks, a return to the operating room to resuture the leaking site is necessary.

After glaucoma surgery, in which an exit passage for ocular fluid is desired, a period of observation is usually first recommended. Some cases are treated with prednisone, a steroid for control of inflammation and reduction of blood vessel leaking. If the choroidal detachments are severe or prolonged, they may need to be drained with an additional operation, sometimes with tighter suturing of the surgically constructed filtering site.

In choroidal detachments associated with inflammations of the eye, prednisone is the first treatment option. The pupil is frequently dilated with atropine drops to prevent the iris from scarring to the lens while the choroidal detachment is present.

## **Final Comments**

Choroidal detachments are usually transient and without permanent adverse effects. They require attention, however, as unattended they can produce scarring of the outflow paths for ocular fluid or scars of the overlying retina, both with potential to reduce vision.

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