

EYE-Q

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Causes of Retinal Detachment

The retina is the light-sensitive tissue at the back of the eye. A retinal detachment is the separation of the retina from the layer of blood vessels (the choroid) underneath it. The most common type is caused by a tear or a hole in the retina and if not treated, will cause blindness. It should be repaired as soon as possible. Sometimes a retinal detachment occurs without a hole or a tear in the retina. Although this can be due to a serious condition, it is treated differently than a detachment caused by a tear or a hole.

If you are very nearsighted or have a family history of retinal detachments, see your eye doctor regularly. While you cannot prevent some changes in your eyes, you can help prevent them from seriously damaging your vision. Treating holes and tears promptly helps prevent retinal detachment..

It is especially important to treat retinal detachments quickly, if the central vision is unaffected. The chances of saving the vision is better in these cases if the surgery is done within 1-2 days. When the central vision is already decreased immediate surgery is less effective in improving sight. In these cases, surgery is performed to protect the remaining vision and avoid painful consequences and sequelae.

The two most common forms of detachment are the rhegmatogenous and traction retinal detachments.

A detachment that occurs because of a tear or hole is called a rhegmatogenous retinal detachment. Changes in the clear gel in the center part of the eye, called the vitreous, can pull on the retina and cause a tear or a hole.

A traction retinal detachment occurs because scar tissue inside the eye pulls the retina off the wall of the eye. This can happen in diabetes, with long-lasting inflammation, eye injury, or from a previous eye surgery. Your eye doctor may talk to you about doing surgery to repair the eye.

In rhegmatogenous retinal detachment, the first symptoms may include seeing flashing lights and floaters in your field of vision or the sensation of a curtain draping over your peripheral vision. Many people just have gradual loss of peripheral (side) vision without pain. If not treated, vision becomes dark all over. This may take hours or days. In the other types of retinal detachment, you may have gradual vision loss over a long period of time. Your eye doctor examine your eyes through an ophthalmoscope (a lighted instrument for seeing inside the eye). In some cases, an ultrasound of the eye is needed because of obstruction of the view into the eye by cataract or blood.

Both types of retinal detachment need to be treated with surgery. No laser or medicine is effective once the tear or raction progresses to a retinal detachment. There are 3 main ways to treat the problem.

- **Pneumatic retinopexy.** The eye surgeon injects a gas bubble into the eye to push the retina back in place. The tears in the retina are sealed later with cryopexy (freezing) or a laser. Unfortunately, the success rate is low and it is not used very often.
- **Scleral buckling.** A silicone band or sponge can be placed under the muscles of the eyeball. This makes the eye wall push against the retina and help it to reattach. This is a more painful procedure and has some risks. However, it is successful 90% of the time.
- **Vitreotomy.** The vitreous (clear gel inside the eye) may be pulling the retina away from the eye. The eye surgeon will cut the vitreous away from the retina to stop the pulling. The surgeon then fills the eyeball with air, gas, or silicone oil to push the retina back against the wall of your eye.. This has a success rate similar to scleral buckling. In certain cases a combination of all three techniques may be required.

Your eye surgeon will discuss the various options for anesthesia for these procedures. For most of them you can go home the same day. While you recover, you will usually need to keep your head in a specific position (such as face down or to one side) for several days or weeks to help your eye heal. Your eye surgeon will tell you what position to rest your head in, how long you need to do this each day, and for how many days. Because the retina is very delicate and complex, there is almost always some degree of permanent damage.

Around 10% of people who have surgery will need more surgery. Sometimes scar tissue forms or there is trouble with recovery. If your vision gets worse or you start having new peripheral (side) vision problems after surgery, let your eye surgeon know.

If you have had a retinal detachment in one eye, your risk of retinal detachment in the other eye increases. See your eye doctor regularly so that any minor problems in your vision can be corrected before they become serious.

If you have questions about your eye health e-mail Dr. Barowsky at doctom@tdkj.com and we'll try to answer your questions here at Eye-Q.