Vitrectomy Surgery

What is vitrectomy?

Vitrectomy is a type of eye surgery used to treat problems of the eye's retina and vitreous. In this surgery, an ophthalmologist may:

- remove blood or other substance keeping light from focusing properly on the retina
- remove scar tissue that is wrinkling or tearing the retina and causing poor vision
- help repair a retina that has detached (pulled away) from the eye wall
- remove a foreign object stuck inside the eye from an injury

During vitrectomy, the ophthalmologist removes some or all of the vitreous from the middle of your eye. This vitreous is replaced with either a salt water (saline) solution or a bubble made of gas or oil.

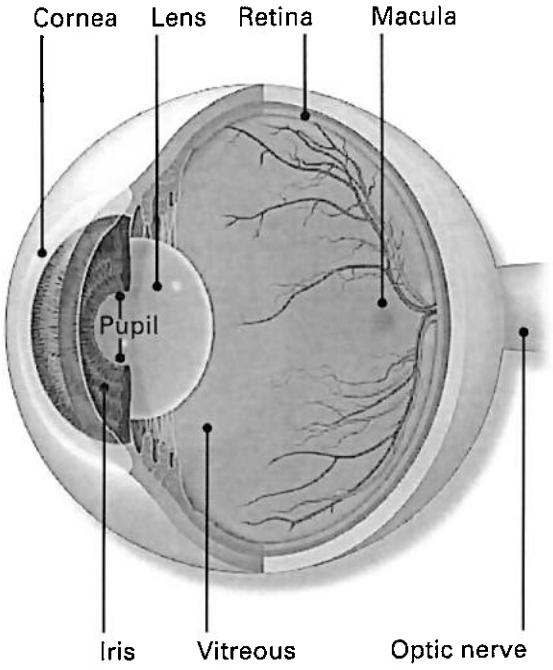
Eye Words to Know

Retina: Layer of cells lining the back wall inside the eye. This layer senses light and sends signals to the brain so you can see.

Macula: Small but important area in the center of the retina. You need the macula to clearly see details of objects in front of you.

Vitreous: Jelly-like substance that fills the middle of the eye.

Cataract: When the eye's naturally clear lens becomes cloudy. In cataract surgery, the cloudy lens is removed and replaced with a clear, artificial lens.



Anatomy of the eye

During healing after surgery, your eye replaces the saline solution or the bubble with the natural fluid the eye makes called aqueous humor.

When is vitrectomy done?

Your ophthalmologist may recommend a vitrectomy if you have one of these diseases or conditions:

- diabetic retinopathy, with bleeding or scar tissue affecting the retina or vitreous gel
- some forms of retinal detachment (when the retina lifts away from the back of the eye)
- macular hole (a circular opening or tear in the macula)

- macular pucker (wrinkles or creases in the macula)
- an infection in the eye called endophthalmitis
- severe eye injury
- certain problems during cataract surgery

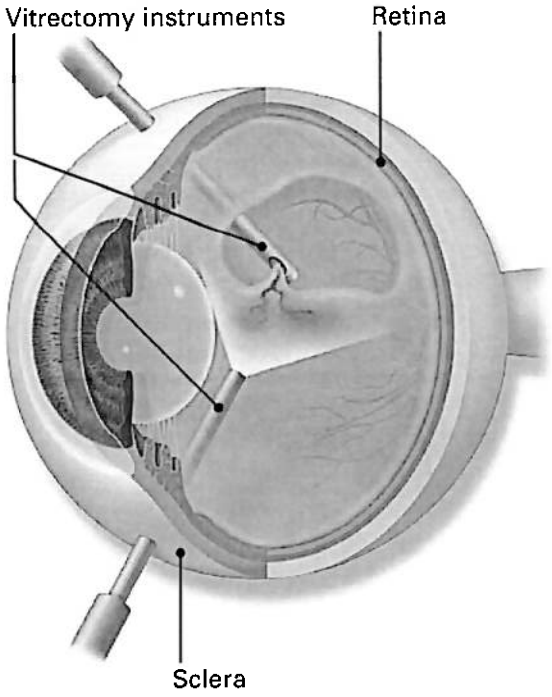
What happens during vitrectomy?

Vitrectomy is usually done in an outpatient surgery center. You will have a local or a general anesthesia to numb the eye. Surgery can take from 1 to several hours.

During surgery, the ophthalmologist will make a small cut (incision) or use special blades to insert the instruments into the white of the eye (sclera). They will use a microscope to see inside your eye. Your surgeon will use tiny tools to do one or more of these steps:

- remove all cloudy vitreous
- remove scar tissue from the retina
- remove any object that should not be in the eye
- return the retina to its proper position against the back of the eye
- use a laser to repair a torn retina or other procedure
- place an air or gas bubble in your eye to help the retina remain in its proper position (bubble goes away on its own)
- place a silicone oil bubble in your eye (oil removed later during second surgery)

Following the surgery, you will be monitored as you rest and recover from anesthesia. Then you can go home.



Vitrectomy surgery removes vitreous from the eye to treat certain eye diseases or conditions.

What happens after surgery?

Your ophthalmologist will prescribe medicine to help the eye heal appropriately and to relieve eye discomfort. Pain is very rare after vitrectomy, but a scratchy, sandy, or gritty sensation—as if something is inside your eye—is common. This will disappear with the medicines and time.

Your doctor will have you wear a patch on your eye for a few days to protect it. They will tell you when you can safely get back to doing your normal activities.

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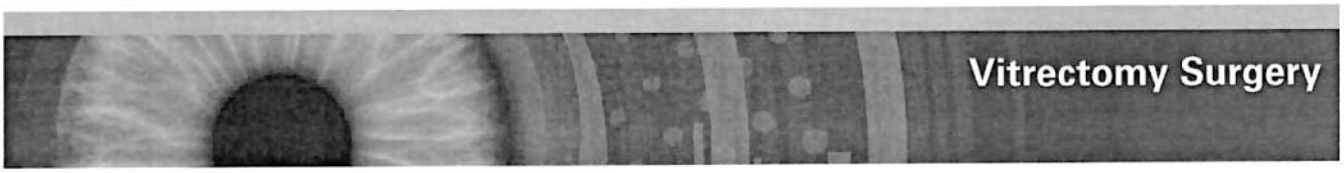

If a gas bubble was placed in your eye . . .

You may need to keep your head in a face-down (or side-facing) position for a specific period of time. Your ophthalmologist will tell you exactly how long to stay in that position. It is very important to follow these instructions to heal properly.

You cannot fly in an airplane, go to the mountains or scuba dive until the gas bubble is gone. This is because a rapid altitude change can affect the size of the bubble.

Vitrectomy surgery risks

Like any surgery, vitrectomy has some risks. They include:

- infection
- bleeding
- torn or detached retina
- poor vision
- glaucoma, when pressure builds up within your eye

Another possible risk after vitrectomy is getting a cataract in that eye. This is especially likely to happen in people over age 50 who have vitrectomy. If you already had cataract surgery with a lens implant, vitrectomy should not harm or dislocate your implanted lens.

Vitrectomy surgery often improves vision or keeps it from getting worse.

Summary

Vitrectomy is a type of eye surgery to treat certain problems of the retina and vitreous. Some of these problems include diabetic retinopathy, detached retina, macula problems and more. Usually an ophthalmologist does this surgery to remove blood, the vitreous gel or both. This repairs the retina and helps the eye focus properly. It may also be used to remove scar tissue that is wrinkling or tearing the retina.

During surgery, the ophthalmologist removes vitreous from the middle of your eye. This vitreous is replaced with either a saline solution or a gas or oil bubble.

Like any surgery, there are risks to be aware of with vitrectomy. Your ophthalmologist will discuss these with you.

If you have any questions about your eyes or your vision, speak with your ophthalmologist. They are committed to protecting your sight.

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