

Vitrectomy

A vitrectomy is a surgical procedure that removes the vitreous in the central cavity of the eye so that vision can be corrected. It is beneficial in many disease states including diabetic eye disease (diabetic retinopathy), retinal detachments, macular holes, macular pucker, and vitreous hemorrhage.

The vitreous is normally a clear, jelly-like fluid that fills the inside of the eye. Various disease states can cause the vitreous to cloud, fill with blood, or even harden so that light entering the eye will be misdirected and not reach the retina properly.

The vitrectomy procedure is usually performed as an outpatient procedure. Rarely, an overnight stay in the hospital is required. Local or general anesthesia may be used. The eye will be held open using a special speculum, and the eye that is not being operated on will be covered with a patch.

The procedure begins with the surgeon making a small (less than 2 mm) slit in the side of the eye and inserting an infusion line to maintain constant eye pressure. Next, a microscopic cutting device is inserted which will aspirate (suck out) the vitreous fluid.

A microscopic light source is also inserted to illuminate the inside of the eye through the procedure. Additional instruments may also be used to perform additional maneuvers such as cauterizing blood vessel leaks or removing scar tissue.

The surgeon will look through a microscope while performing the procedure. The surgeon may also use special lenses to help see the anatomy of the eye. After the vitreous is removed, the surgeon will refill the eye with a special saline (salt) solution that closely resembles the natural vitreous fluid in your eye. Tiny absorbable stitches are used to close the three small openings and antibiotic injections to prevent infection will be instilled at the end of the procedure.

Vitrectomy has been commonly performed and perfected for over 30 years. However, certain risks do exist. They include:

- Retinal detachment
- Development of glaucoma (increased pressure in the eye)
- Cataract formation or progression
- Bleeding and/or infection inside or outside the eye
- Red or painful eye
- Loss of depth perception, blurring of vision, double vision, or blindness
- Swelling of the layer under the retina (choroidal effusion)
- Change in focus, requiring new spectacle lenses (refractive changes)
- Wrinkling of the center of the retina (macular pucker)

- Swelling of the center of the retina (cystoid macular edema)
- Loss of night vision or distortion of vision
- Loss of eye (extremely rare)
- Need for additional treatment and/or surgery

Retinal detachment during or after the procedure is the most common risk. The surgeon is prepared for this to happen and can repair the detachment by inserting gas that applies pressure on the retina before completing the case.

The retinal detachment will heal during the normal vitrectomy healing time, which is between 4 to 6 weeks. Normal restoration of vision can take several weeks. Physical activity will be restricted during this time to prevent complications.

