

# Vitreotomy Surgery

## What is vitrectomy?

Vitreotomy is a type of eye surgery that treats disorders of the retina and vitreous. The **retina** is the light-sensing tissue at the back of the eye. The **vitreous** is the clear jelly-like substance that fills the middle of the eye.

The vitreous is removed during vitrectomy surgery and usually replaced by a saltwater solution.

## When do you need a vitrectomy?

Your ophthalmologist may recommend vitrectomy surgery to treat the following eye problems:

- **Diabetic retinopathy**, if bleeding and scar tissue is present;
- **Some retinal detachments**;
- Infection inside the eye;
- Severe eye injury;
- **Macular pucker** (wrinkling of the retina);
- **Macular hole** (partial loss of vision for fine details);
- **Certain problems after cataract surgery.**

## How can a vitrectomy improve vision?

Vitreotomy surgery often improves or stabilizes vision. The operation removes any blood or debris (from infection or inflammation) that may be blocking or blurring light as it focuses on the retina.

Vitreotomy surgery removes scar tissue that can displace, wrinkle, or tear the retina. Vision is poor if the retina is not in its normal position.

This surgery can also remove a foreign object stuck inside the eye as the result of an injury. Most foreign objects will damage vision if they are not removed.

## What happens if you decide to have a vitrectomy surgery?

### BEFORE SURGERY

Your ophthalmologist will decide whether local or general anesthesia is best for you. Surgery is typically done as out-patient surgery, and your allotted time at the hospital from check-in to check-out is typically around 4 hours, depending on the type of surgery you are having. Before surgery you will need to have a physical examination to alert your ophthalmologist to any special medical risks.

A painless ultrasound test may be performed before the surgery to view the inside of the eye.

## **VITRECTOMY SURGERY**

The length of the operation varies from one to several hours, depending on your condition. In certain situations, your ophthalmologist may do another surgical procedure at the same time, such as repairing a detached retina or removing a cataract.

Your ophthalmologist performs the operation while looking into your eye with a microscope. Various miniature instruments are placed into the eye through tiny incisions in the sclera (white part of the eye).

In order to get the best possible vision for you, your ophthalmologist will do one or more of the following:

- Remove all cloudy vitreous;
- Remove any scar tissue present, attempting to return the retina to its normal position;
- Remove any foreign object that might be in the eye;
- Treat the eye with a laser to reduce future bleeding or to fix a tear in the retina;
- Place an air or gas bubble in the eye to help the retina remain in its proper position (the bubble will slowly disappear on its own);
- Place silicone oil in the eye, which usually requires later surgical removal.

## **AFTER SURGERY**

You can expect some discomfort after surgery. You will wear an eye patch following the surgery until you are seen the next day by your ophthalmologist where the eye patch will be removed. You will need to wear a shield at night for the first week following surgery to avoid rubbing your eye. Your ophthalmologist will prescribe eye drops for you and advise you when to resume normal activity.

If your surgery requires a gas bubble to be placed in your eye, your ophthalmologist may recommend that you keep your head in special positions until the gas bubble is gone.

**DO NOT FLY IN AN AIRPLANE OR TRAVEL TO HIGH ALTITUDES UNTIL THE GAS BUBBLE IS GONE! A RAPID INCREASE IN ALTITUDE CAN CAUSE A DANGEROUS RISE IN EYE PRESSURE.**

**What are the risks of vitrectomy surgery?**

All types of surgery have certain risks, but the risks of vitrectomy are less than the expected benefits to your vision.

Some of the risks of vitrectomy include:

- Infection
- Bleeding
- Retinal detachment
- Poor vision
- High pressure in the eye

Another possible risk of vitrectomy surgery is accelerated cataract formation. Although cataract rarely develops soon after surgery, elderly patients often develop cataract over many months.

### **How much will your vision improve?**

Your vision after surgery will depend on many variables, especially if your eye disease caused permanent damage to your retina before the vitrectomy. Your ophthalmologist will discuss your situation with you to explain how much improvement in your eyesight is possible.