What is a pars plana vitrectomy with air-fluid exchange and why is it being recommended?

A pars plana vitrectomy is an surgical technique used to extract the vitreous from the eye, replacing it with a saline solution. An air-fluid exchange is used to place a gas bubble inside the eye, which holds the retina in place.

A vitrectomy with air-fluid exchange is typically performed on patients who have a retinal detachment or a macular hole. In a macular hole, the bubble is used to push against the retina in the area where the hole is located, closing and sealing the hole. It takes about two weeks for the hole to become sealed and during this time the doctor may have you position your head certain ways for the whole 2 week period. It is important to follow these directions to ensure full closure of the hole.

In retinal detachments, the bubble has two purposes; it seals the tear causing the retinal detachment, and it pushes the area of detached retina against the underlying tissue, allowing it to become reattached. It takes about two weeks for the tear to seal and the retina to become reattached and the doctor may have you position your head certain ways for the whole 2 week period. It is important to follow these directions to ensure that the retina becomes fully attached.
What are the risks?

Vitrectomy surgery is an outpatient procedure and is considered intra-ocular vitreoretinal surgery. The major risks of vitrectomy surgery include:
1. Formation of cataract in operated eye
2. Infection inside the operated eye
3. Glaucoma or temporary increase in eye pressure
4. Retinal detachment in the operated eye

IMPORTANT: Do not go above 2,000 feet or serious and possibly irreparable damage may occur to your eye.

How is it done?

You will check into the hospital at the specified time (1.5-2 hours before surgery time, and depends on what the hospital says). After being prepped for surgery, you will be taken into the surgery bay and in most cases, will be placed under twilight anesthesia. Depending on the extent of the surgery, it can last anywhere from 30 min-1 hour. No overnight stay in the hospital is necessary and you may go home afterwards.

What can I expect as my eye heals?

Even though vitrectomy surgery is a routine surgery it is still invasive. It is common to experience one or more of the following:
1. Lid swelling and/or droopy lid
2. Eye redness
3. Tearing (a slight amount of blood in the tears is normal, especially after the first week)
4. Some pain or dull aching
5. Foreign body sensation or a feeling like something is rubbing on the outside of the eye. This is usually due to the sutures on the outside of the eye and should dissolve after 2 weeks.

When should I call my Doctor if I think I am having a problem?

Infection or retinal detachments are extremely rare after vitrectomy surgery, however you should call our office IMMEDIATELY if you experience one or more of the following symptoms:
1. Severe pain within the eye
2. Nausea or vomiting
3. Sudden, large decrease in vision
4. Pus-like discharge
5. New onset of flashes, floaters and/or a black curtain coming across your vision

Do I need to take any special care or medications after my retinal surgery?

Yes. It is important that you position your head as directed. Do not engage in any strenuous activity, jogging or other exercise, or roller-coasters after vitrectomy surgery. Your doctor will inform you when normal activities can be resumed. Avoid getting water in the eye for 2 weeks. If you experience minor pain, regular ibuprofen can be taken at home with food. Take all your medications as directed until the bottle runs out. It is important that you wait 5 minutes between drops.

My post surgery instructions

- Important: Position your head as directed
- Important: Do not go above 2,000 feet
- Take the antibiotic eye drop (beige top) in the operated eye; 1 drop, 4 times/day until the bottle is gone.
- Take prednisolone (pink top) eye drop in the operated eye: 1 drop, 4 times/day until the bottle is gone.
- Take antibiotic ointment (tube); small amount in lower lid, 2 times/day until the tube is empty.
- If prescribed, take atropine (red top) eye drop in the operated eye; 1 drop, 2 times/day until the doctor tells you to discontinue.
- Showering is ok, however avoid getting water in the eye for two weeks.