



## Operation Information

### **Retinal Re-attachment Surgeries** **(Vitrectomy / Scleral buckling / Pneumatic retinopexy)**

#### **Introduction**

The retina is the light-sensitive layer of tissue that lines the inside of the eye and sends visual images through the optic nerve to the brain. In most cases, retinal detachment is caused by break(s) in the retina which allow fluid to go underneath the retina, causing separation of the retina from its normal position. Once the retina is detached and its blood supply is compromised, vision will be affected. If left untreated, the condition may lead to permanent blindness.

The surgical repair involves sealing all the break(s) and re-attachment of the detached retina to its normal position. Three kinds of surgeries include vitrectomy, scleral buckling and pneumatic retinopexy could be used depending on the client's circumstances. Please discuss with your doctor for the appropriate option of treatment.

#### **Outcomes**

Without the prompt treatment, retinal detachment will lead to loss of vision. In 85% case, only one operation is needed to reattach the retina.

#### **Procedures**

1. The above operation(s) can be performed under general or local anaesthesia.

2. **Vitrectomy**

Vitrectomy is the most commonly performed operation for retinal re-attachment.

- The vitreous gel is removed from the inside of the eye and replaced with special physiological saline solution.
- Gas bubble or silicone oil will be injected to push the retina back to its normal position.
- Cryotherapy or laser will also be used to seal off all the retinal breaks.
- You will be required to adopt a specific posture to maximize the effect of the gas bubble or silicone oil for a period of time after the operation.

#### **Scleral buckling**

Scleral buckling involves fine bands of silicone rubber or sponge that are stitched on to the outside white of the eye (the sclera) in the area where the retina has detached.

- Explants are placed on the outside of the eyeball to cause inward indentation of the eyeball whereby apposing the detached retina back to its normal position.
- Cryotherapy or laser will be used to seal the break(s) in the retina.
- Additional procedures will be performed if necessary, such as vitrectomy, fluid drainage at the site of the detachment etc.

#### **Pneumatic retinopexy**

- A gas bubble is injected into the eyeball.
- The gas bubble pushes the retina back to its normal position and closes the break. Cryotherapy or laser will be used to seal the break(s) in the retina.

- You will be required to adopt a specific posture in order to maximize the effect of the gas bubble for a period of time after the operation.

\* Sometimes, more than one procedure is needed, such as Scleral Buckling procedure may be performed together with the Vitrectomy.

### **Possible Risks and Complications**

Retinal Re-attachment Surgery is a safe operation. However, the following risks and complications may sometimes occur:

1. Raised intra-ocular pressure
2. Glaucoma
3. Cataract
4. Anterior segment ischemia
5. Intraocular bleeding
6. Infection, endophthalmitis
7. Squint, double vision
8. Maculopathy or macular pucker
9. Failure to re-attach the retina
10. Re-detachment of retina
11. Retinal scarring or fibrosis
12. Change in refractive status which may increase in short-sightedness (myopia), especially after scleral buckling procedure
13. Phthisis Bulbi
14. Visual loss or permanent blindness
15. Exposure of explant and extrusion that may require removal
16. You may need more than one operation to fix the retina

\*\* The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all operations are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising.

### **Pre-operative Preparations**

1. Good hygiene can prevent surgical wound infection. Therefore, we advise you to clean up yourself on the day of operation.
2. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
3. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia. Please inform doctor if you are taking medications that affect blood coagulation such as Aspirin, Warfarin, Xarelto or Pradaxa, nonsteroidal anti-inflammatory drug(NSAID) such as ibuprofen, naproxen and Chinese medication.
4. Blood tests, chest x-ray are usually required to prepare for general anaesthesia.
5. No food or drink six hours before operation. (For general anaesthesia only)
6. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses. Do not put creams, lotions, or makeup on the face or around the eyes.
7. Please empty your bladder before the operation.

## **Post-operative Instructions**

### **General**

1. **After general anaesthesia, you may:**
  - experience discomfort in the throat after tracheal intubation.
  - experience side effects of anaesthesia includes feeling tired, drowsy, nausea or vomiting. Inform the nurse if symptoms persist or worsen.

### **Wound Care**

1. The operation site will be covered with eye pad and eye shield. Please keep the wound clean and dry.
2. There may be some swelling, discomfort or blurred vision in the operated eye, especially when gas has been injected into the eye or the eye condition is not stable.
3. After the operation, your eyelids may feel itchy and sticky, and some fluid may leak from your eye.
4. There may be some bruising around the eye.
5. Do not rub the operated eye.
6. You are advised to wear clothing with buttons instead of pullovers to avoid contact with the affected eye(s) and causing infection.

### **Diet**

A normal diet may be resumed as instructed after recovery from general anaesthesia.

### **Activities**

1. Hair washing should be avoided for the first week
2. Showering is allowed however avoid getting water in the eye for two weeks.
3. Heavy lifting or doing any activities that strain the body should be avoided.

### **Advice on Discharge**

1. Good hygiene, especially eye and hand hygiene can reduce the risk of infection.
2. Do not remove the patch until you are instructed by the doctor.
3. Please avoid water get into the operated eye and wash the hair during the first week to prevent infection to take part in the operated eye.
4. It is important not to rub the eye while it heals, which will usually take two to six weeks.
5. If you had a gas bubble in your eye, your vision will be blurry for a while. This is only temporary.
6. Please avoid travel by air or travel to high altitude if you still have gas bubble in the operated eye.
7. The vision will usually improve gradually when the gas is being absorbed and the eye is recovering well. It can take many months for vision to improve after surgery.
8. It is advised to leave some lighting when you go to toilet at night to avoid falls.
9. You may need to maintain a special head posture for a period of time.
10. If any other surgical procedure(s) will be performed, especially under general anaesthesia, you must inform the anaesthetist of the need for special precaution and management.
11. Immediately consult your doctor or return to hospital for professional attention in the event of worsening vision gets worse, severe wound pain with redness and swelling, massive bleeding or offensive-smelling discharge, shivering, high fever over 38°C or 100.4°F, or any other unusual symptoms etc.
12. Any follow-up consultations should be attended as scheduled.

Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

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Compiled by Union Hospital Operating Theatre (OT) Governance Committee

The above information is for reference only, please enquire your physician for details  
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification

