

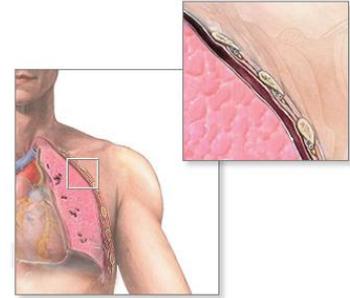


## Operation Information

### Pleural Drainage

#### Introduction

The pleural space is the thin fluid-filled space between the two linings of the thoracic cavity. When there is an abnormal collection of fluid or air, it compresses the lung and impedes the ability of the lung to expand. Pleural Drainage is a procedure to insert a tube into the pleural space to drain the fluid, blood or air that has accumulated for which the lung compression can be released. The operation can be done at bedside or under image guidance (CT or USG).



Source:  
[https://medlineplus.gov/ency/presentations/100008\\_1.htm](https://medlineplus.gov/ency/presentations/100008_1.htm)

#### Indications

1. Pneumothorax (air leak)
2. Hemothorax (collection of blood)
3. Pleural effusion (collection of fluid)
4. Empyema (collection of pus)

#### Outcomes

It is expected that the abnormal fluid or air in the pleural space is removed in order to decompress the lung, as well as prevent risks of infection and morbidity.

#### Procedures

1. The operation is usually performed under local anaesthesia.
2. You are required to remain in upright, prone, supine or lateral position depending on the location of accumulation.
3. You are required to remain still. Please verbalize your needs instead of presenting with body movement.
4. A small incision is made on the chest wall. A sterile drainage tube is introduced through the chest wall and inserted into the pleural space.
5. The tube is connected to a container for draining the air or fluid coming out from the pleural cavity.
6. When the drain is appropriately positioned inside the chest, it will be secured by stitches to the chest wall.
7. A sterile dressing is used to cover the wound.
8. When the air or fluid has all been drained out and the lung re-expanded fully (usually takes a few days and confirmed by X-ray), the tube will be removed.

## **Possible Risks and Complications**

1. Mild pain and discomfort
2. Massive bleeding
3. Wound infection
4. Damage to the lung or nearby organs
5. Misplacement or dislodgement of the tube
6. Unresolved or recurrence of the problem

\*\* 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 the operation.
2. The operation 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 medicine.
4. Chest X-ray may be performed. Please inform the doctor and nurse if you are or might be pregnant.
5. Blood tests may be performed to check the complete blood count and coagulation profile. Corrections with blood production transfusion may be required before the operation.
6. No food or drink six hours before the operation if necessary.
7. Intravenous access will be established.
8. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
9. Please empty your bladder before the operation.

## **Post-operative Instructions**

1. You are checked often for any air leaks, plugging of the drainage tube, and breathing difficulty.
2. Please inform the nurse of wound pain. Proper pain relief treatment will be provided.
3. Keep the drainage system upright and below your chest.
4. Avoid pulling, kinking or bending the drainage tube.
5. Deep breathing and coughing exercises will help with drainage and re-expanding your lungs.
6. If the drainage is on suction, you are required to stay close to your bed.
7. If the drainage requires no suction, you may walk around. Be reminded to carry the drainage container with you and below your chest.
8. Do not leave the ward.
9. Please inform the nursing staff immediately if
  - the connection of the drainage tube is loosened;
  - the drainage tube is coming out;
  - increased shortness of breath, or any other concerns.
10. Several chest X-rays may be performed to assess how well the air or fluid is draining.
11. Your doctor will discuss with you how long the drainage will stay.
12. Most people need to stay in the hospital until the drainage tube is removed. Often, a follow-up chest x-ray will be done after the removal of the tube to make sure that the fluid or air has not re-accumulated.

Wound Care

1. The wound will be covered with a sterile dressing which must be kept dry.
2. The wound dressing will be changed according to the doctor’s order.
3. You may take a shower after the operation but must ensure that the dressing is waterproof and remains clean and dry.

**Advice on Discharge**

1. You must ensure the wound is kept clean and dry, and change the dressing if necessary (as instructed by doctor).
2. Regular activities can be resumed gradually along with a balanced diet.
3. Immediately consult your doctor or return to hospital for professional attention in the event of chest pain, difficulty breathing, shivering, high fever over 38°C or 100.4°F, or any other unusual symptoms.
4. 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