

## Introduction

Video-assisted Thoracic Surgery (VATS) - Wedge Excision of Lung is a minimally invasive surgery performed with a thoracoscope, using small incisions and special instruments. A wedge excision is the surgical removal of a wedge-shaped portion of a lobe of the lung. (The right lung has three anatomical lobes and the left has two.) This is typically performed for the diagnosis or treatment of early-stage cancer.

## The Operation

1. General anaesthesia.
2. Three small incisions are made in the chest wall.
3. A thoracoscope and surgical instruments are inserted into the chest cavity.
4. The doctor is guided by thoracoscopic images of the operative area to remove a wedge-shaped portion of affected lobe through the small incisions.
5. 1-2 drainage tubes are put in place before wound closure for the drainage of residual fluid and air.

## Preoperative Preparation

1. Admit 1 day before or on same day of this “elective” operation.
2. Anaesthetic assessment before operation. Inform your doctors about drug allergy, regular medications or other medical conditions.
3. Keep fast for 6 to 8 hours before operation.
4. Empty bladder and change to operation clothes before transfer to operating room.
5. Pre-medication, intravenous line and antibiotic prophylaxis may be required.

## Postoperative Instruction

### General

1. Mild throat discomfort or pain because of intubation.
2. Mild discomfort or pain over the operation site. Inform nurse or doctor if pain severe.
3. Nausea or vomiting are common; inform nurses if symptoms severe.
4. Inform nurses if more analgesics are required.
5. The patient should use a semi-recumbent position to facilitate lung expansion and change position regularly to facilitate drainage from the chest cavity.
6. Early mobilization with deep breathing and coughing exercise to recuperate lung function and prevent chest infection.
7. The hospital stay is usually 5-7 days.

### Wound care

1. Keep dressing clean and dry.
2. Ensure the drainage tube is in right place. Do not pull, twist, clamp or apply pressure.
3. The drains will be removed in 2-7 days.

### Diet

Resume diet, usually 4-6 hours after anaesthesia, and when taking sips of water well.

**Common Risks and Complications** (not all possible complications are listed)**Anesthesia related**

1. Cardiovascular: myocardial infarction or ischaemia, stroke, deep vein thrombosis, pulmonary embolism, etc.
2. Respiratory: atelectasis, pneumonia, asthmatic attack, exacerbation of chronic obstructive airway disease.
3. Allergic reaction and shock.

**Procedure related**

1. Bleeding / Infection / Hemothorax (Blood collection in the chest cavity).
  2. Persistent air leak.
  3. Conversion to thoracotomy.
  4. Damage to other organ(s).
- \*\* In the event of other organ(s) damage or post-operative haemorrhage or air leakage, further operations may be required.

**Things to take note after discharge**

1. Contact your doctor or a nearby Accident & Emergency Department if you find increasing discharge, pain or redness around the wound, high fever over **38°C or 100°F**, etc.
2. Take analgesics prescribed by your doctor as necessary.
3. Keep the wound dressing clean and dry, change the dressing if necessary.
4. The breathing exercises should be continued to help with recovery.
5. Resume daily activity gradually. Heavy lifting and strenuous exercises should be avoided for first 1-2 months.
6. Attend follow-up consultations as scheduled.

**Remarks**

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

**Reference**

Medscape: "Thoracoscopic Wedge Resection" (2022)  
<http://emedicine.medscape.com/article/1894191-overview#showall> (13-07-2023)