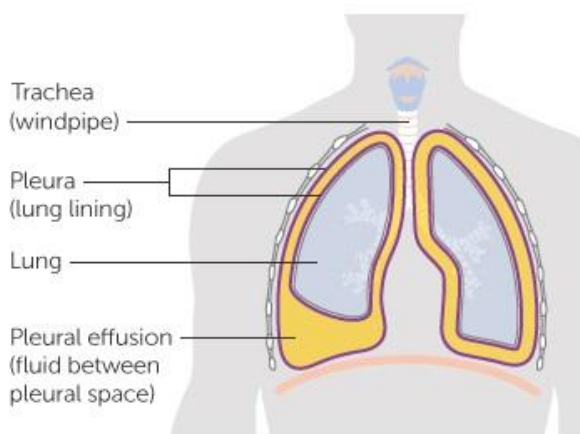


# Pleurodesis

## What is pleurodesis?

Pleurodesis is a procedure used to treat pleural effusion, a buildup of excess fluid in the pleural space – the area between the lungs and rib cage. This is a condition common in people with metastatic cancer or some benign conditions such as heart or kidney failure. A large amount of fluid in the pleural space prevents your lungs from expanding properly, and makes it hard for you to breathe.



During pleurodesis, your doctor:

Step 1: drains the fluid with a small tube inserted into the pleural space in your chest

Step 2: inserts a treatment agent, such as talc or other chemical, through the tube to make the lung stick to the inside of the rib cage. This leaves no space for fluid to build up anymore.

## How should I prepare?

### Medications

Some over-the-counter and prescription medications can interfere with normal blood clotting and may increase the risk of bleeding. Follow the guidelines in the chart on the next page regarding when to stop taking certain medicines, vitamins, and supplements.

**If your doctor gives you different instructions, always follow your doctor's instructions.**

<p><b>7 days (1 week) before your procedure, stop taking:</b></p> <ul style="list-style-type: none"> <li>• aspirin</li> <li>• herbal supplements, garlic tablets</li> <li>• vitamins</li> </ul>
<p><b>5 days before your procedure, stop taking:</b></p> <ul style="list-style-type: none"> <li>• warfarin (Coumadin® or Jantoven®)</li> <li>• clopidogrel (Plavix®) Note: Your doctor may tell you to stop this medication 7 days before surgery</li> </ul>
<p><b>3 days before your procedure, stop taking:</b></p> <p>• non-steroidal anti-inflammatory medications (NSAIDs):</p> <ul style="list-style-type: none"> <li>– ibuprofen (Advil®/Motrin®)</li> <li>– naproxen (Aleve®/Anaprox®)</li> <li>– piroxicam (Feldene®)</li> <li>– sulindac (Clinoril®)</li> <li>– etodolac (Lodine®)</li> <li>– diclofenac (Voltaren®)</li> <li>– meloxicam (Mobic®)</li> <li>– ketoprofen</li> </ul>
<p><b>1 day (24 hours) before your procedure, stop taking:</b></p> <ul style="list-style-type: none"> <li>• enoxaparin (Lovenox®)</li> </ul>

**If you take any medications to treat or prevent blood clots, talk to your doctor about when, or if, you should stop taking your medication before surgery. These medications include:**

- alteplase (Actilyse®)
- anagrelide (Agyrin®)
- ardeparin (Indeparin®)
- argatroban (Acova®)
- apixaban (Eliquis®)
- bivalirudin (Angiomax®)
- cilostazol (Pletal®)
- dabigatran (Pradaxa®)
- dalteparin (Fragmin®)
- desirudin (Iprivask®)
- dipyridamole (Persantine®)
- edoxaban (Savaysa®)
- eptifibatide (Integrilin®)
- fondaparinux (Arixtra®)
- lepirudin (Refludan®)
- prasugrel (Effient®)
- rivaroxaban (Xarelto®)
- ticagrelor (Brilinta®)
- ticlopidine (Ticlid®)
- tinzaparin (Innohep®)
- tirofiban (Aggrastat®)
- vorapaxar (Zontivity®)

Continue taking all your other prescription medications, up to and including the day before your surgery.

## General Instructions

- **Food/Drink**
  - **If you are having general anesthesia: No food or drink after midnight the night before your procedure.** (You will be given specific instructions if you have an ERAS procedure.)
  - **If you are having sedation (medication that makes you relaxed/sleepy): Stop eating and drinking 8 hours before your procedure, except for water. Stop drinking water 2 hours before your procedure.**

- If you have diabetes and take insulin, talk to your primary doctor about how to take your insulin on the day of the procedure.
- If you need medication on the morning of your procedure, take it with a very small sip of water.

## **Checking in**

- The morning of your pleurodesis, check in at the Patient Access Department (Registration) on the ground floor in the hospital lobby. They will direct you on where to go.
- When you arrive, an intravenous catheter (IV) will be placed in a vein in your arm so that fluids and medications can be given.
- If you are admitted to the hospital for the procedure, the IV will be started in your room.

## **What happens during the procedure?**

There are two ways to perform pleurodesis.

### **1. Chemical pleurodesis**

The doctor numbs the area with a local anesthetic (like a dentist numbs your mouth before dental work) and you remain awake throughout the procedure. You will get sedating medication through your IV to help you relax.

- A tube is placed into your chest. The tube connects to a container that collects the fluid as it drains. It may take several days to drain all of the fluid.
- After the fluid has drained, a numbing medication is put into the pleural space through the chest tube, followed by the treatment agent. The chemical/treatment agent causes inflammation inside the chest cavity.
- A suction device will be attached to the chest tube container to help bring the lung and chest wall together.
- The tube will be clamped for 1-2 hours. Afterwards, the chest tube is unclamped to drain and measure any leftover fluids.
- The tube will likely stay in place for a few days. If you have pain, let your nurse know and pain medication will be given. Do not wait until the pain becomes severe. Pain medication is more effective before pain gets severe. In addition, pain can slow down your recovery.

### **2. Surgical pleurodesis**

This procedure is done under general anesthesia and you are asleep for the entire procedure.

- A small incision is made in your chest and a scope with a camera on the end, called a thoroscope, is inserted.
- Fluid is drained from the pleural space.
- Talc or another chemical agent is inserted and/or the inside surface of the rib cage is scraped to cause inflammation so the lung will stick to the inside of the rib cage.
- The scope is removed and a drainage tube may be left. Remaining incision(s) are closed with stitches.

## What should I expect after my procedure?

- You will have to stay in the hospital for several days after your procedure.
- The site where the chest drainage tube enters your skin may be uncomfortable or sore. Usually, pain medication is needed until the tube is removed. Be sure to tell your nurse and doctor if you are having pain. Your medication may need to be adjusted.
- If you have surgical pleurodesis, you may experience pain at the incision site.
- You may have trouble taking deep breaths. This will get easier as you recover. We will show you how to do special breathing exercises to help prevent lung complications and help your recovery.
- You may develop a slight fever for several days.
- You may feel your heart beating faster for several days.

## What are the risks?

Your doctor will discuss the risks and benefits of pleurodesis with you. Complications are rare and include:

- bleeding
- infection
- puncture of the lung
- allergic reaction to the substance used in the procedure

## When should I call my doctor?

**Emergencies: If you feel you are in a life-threatening situation, please call 911 immediately.**

Please go to the Emergency Department if you:

- have a fever above 101.4°F with symptoms
- have sudden/severe chest pain or shortness of breath
- cough up more than 1 tablespoon of bright red blood

Let your Roswell doctors know that you went to the ER or if you are admitted to the hospital.

The Thoracic Center is open 8 a.m. to 5 p.m. Monday to Friday. Phone: **716-845-3167**.

After hours, please call Roswell Park at **716-845-2300** and our Call Center staff will assist you. If it is determined you need to be seen, you may be asked to come to our Assessment and Treatment Center (ATC), which is open 24/7. You need to be referred to the ATC by a provider; it is not a walk-in clinic.

## Questions or concerns

Any questions please contact your thoracic nurse at **716 -845-3167** during business hours.