

Chest tube insertion

A chest tube is a hollow, flexible tube in the chest. It acts like a drain.

- Chest tubes drain blood, fluid, or air from around your lungs. This allows your lungs to fully expand.
- The tube is placed between your ribs and into the space between the inner lining and the outer lining of your lung. This is called the pleural space.

When your chest tube is inserted, you will lie on your side or sit partly upright, with one arm over your head. The area where the tube will be inserted is numbed. Sometimes you will receive medicine through a vein (intravenous, or IV) to make you relaxed and sleepy. Your skin where the tube will be inserted will be cleaned. The chest tube is inserted through a 1-inch cut in your skin between your ribs. Then it is guided to the correct spot. The tube is connected to a bottle or canister. Suction is often used to help it drain. Other times, gravity alone will allow it to drain. A stitch (suture) and tape keep the tube in place. After your chest tube insertion, you will have a chest x-ray to make sure the tube is in the right place.

The chest tube usually stays in place until x-rays show that all the blood, fluid, or air has drained from your chest and your lung has fully re-expanded. The tube is easy to remove when it is no longer needed. Most people do not need medicine to relax or to numb the area when it is removed. Some people may have a chest tube inserted that is guided by x-ray or ultrasound. If you have major lung or heart surgery, a chest tube will be placed while you are under general anesthesia (asleep).

Chest tubes are used to treat conditions that can cause a lung to collapse. Some of these conditions are:

- After surgery or trauma in the chest
- Air leaks from inside the lung into the chest
- Fluid buildup in the chest due to bleeding into the chest, buildup of fatty fluid, abscess or pus buildup in the lung or the chest, or heart failure.

Some risks from the insertion procedure are:

- Moving the tube by accident (this could damage tissue around the tube)
- Bleeding or infection where the tube is inserted
- Buildup of pus
- Improper placement of the tube (into the tissues, abdomen, or too far in the chest)
- Injury to the lung, which could cause more breathing problems
- Injury to organs near the tube, such as the spleen, liver, stomach, or diaphragm

You will usually stay in the hospital until your chest tube is removed. People do not usually go home with a chest tube. While the chest tube is in place, your nurses will carefully check for air leaks, breathing problems, and if you need oxygen. They will also make sure the tube stays in place. Your nurses will tell you whether it is okay to get up and walk around or sit in a chair.

What you will need to do:

- Breathe deeply and cough often (your nurse will teach you how to do this). Deep breathing and coughing will help re-expand your lung, help with drainage, and prevent fluids from collecting in your lungs.
- Be careful there are no kinks in your tube. The drainage bottle should always sit upright and be placed below your lungs. If it is not, the fluid or air will not drain and your lungs cannot re-expand.

Get help right away if:

- Your chest tube comes out or shifts

The tubes become disconnected

- You suddenly have a harder time breathing or have more pain