Chest drain insertion

This factsheet explains about having a chest drain. If you have any questions please ask a member of your healthcare team.

What is a chest drain?
A chest drain is a narrow plastic tube that is inserted into the chest to drain fluid or air that may be collecting there.

The lungs and inside of the chest cavity have a smooth covering called the pleura which lets the lungs expand without rubbing on the inside of the chest. The two layers of pleura are usually in close contact with only a small space in between (pleural space).

After an operation or accident or as a result of illness, the pleural space can fill up with air or fluid. This stops the lungs inflating completely when breathing in, causing breathing difficulties.

Why do I need a chest drain?
Air or fluid has collected in the pleural space, which may stop your lung from working normally. The chest drain will allow this air or fluid to leave the body so that the lung can reinflate to its normal shape, helping you breathe more easily.

If required, the fluid can be sent away for tests to find out why it is building up.

Your doctor will give you more details about why a chest drain is required in your particular case.
How does a chest drain work?
Once the chest drain is inserted, it is connected to a bottle containing sterile water.

The air or fluid from your chest then drains down the tube and into the bottle. The water acts as a seal, preventing air or fluid from coming back up the tube and into your chest. It may take several days for the fluid or air to drain completely.

If you have a drain because of an air collection in your pleural space, you will see bubbles in the bottle, this is just the air escaping and it’s normal.

How will the chest drain be put in?
Chest drains are usually inserted by a doctor in a dedicated room, or sometimes on the ward. We will ask you to sit or lie in a comfortable position. The chest drain will be inserted into the side of your chest below the armpit, or sometimes in the front of your chest or on your back.

Before inserting the drain we will usually do an ultrasound scan of the chest.

Your skin will be cleaned with antiseptic to reduce the risk of infection. Local anaesthetic will then be injected to numb the area. This can sting a little but doesn’t last long.

The doctor will use a needle to locate the fluid or air, which ensures the drain is inserted in the correct place. A small cut will be made in your skin and the drain will then be gently guided into the chest. This should not be painful but you may feel some pressure or pushing. If at any time during the procedure you do feel pain, please tell us.

The drain will be held in place with stitches and covered by a dressing. The whole procedure usually takes around 45 minutes to an hour. Your chest drain will be monitored regularly by your healthcare team to ensure it is working correctly.

After it is inserted, the fluid or air around the lung will start draining and you should be able to breathe more easily, although it may take a bit of time for the lung to reinflate.

It is normal to feel some pain after the local anaesthetic wears off. To help with this, you will be offered regular painkillers and you should ask for more if necessary. It is important that you take enough painkillers to allow you to take deep breaths and cough comfortably.

Are there any risks?
In most cases, the insertion and use of a chest drain is a safe, routine procedure. However, as with all medical procedures, there can be some risks.

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Can the chest drain fall out?
Occasionally the chest drain falls out after insertion and needs to be replaced. Your doctor will use several dressings and a stitch to try to stop this from happening. You can help reduce the likelihood of this problem by:
- handling your chest drain carefully
- trying not to pull on it
- not allowing it to get tangled around your bed.

Looking after your chest drain
There are a few other simple things you can do to look after your chest drain.

When you are moving around:
- Keep the drain below the point where it comes out of your chest. If you lift the bottle above where the drain is inserted, fluid from the bottle can flow back into your chest.
- Move and walk around as much as you can, but remember to carry the bottle with you, holding it by its handle.
- Think about your drain when you stand up, walk around or turn in bed so it doesn’t pull or disconnect.
- Be careful not to kink the tubing by sitting or stepping on it and don’t let it get tangled up.
- Avoid knocking the bottle over, ensure it is upright and the tube tip is under water.

![Correct and Incorrect images]

Correct
Bottle upright, tube tip under the water

Incorrect
Bottle is tipped, tube tip is not under water

- You must not leave the ward without telling your nurse or the nurse in charge.

Asking for help
- Please ask for help immediately if the chest drain disconnects or the bottle falls over.
- Ask for pain relief as and when you need it.
- Look out for any leaks of air or fluid. Tell your nurse if you:
  - think your drain may have moved
  - feel more short of breath
  - notice an increased amount of bubbles in your bottle
  - or if the dressing is wet or coming off

Suction
- Sometimes suction is used to help reinflate the lung.
- If the suction is delivered with a portable unit, you may walk freely around the ward. However, if the suction is connected to the wall you should not disconnect it to move about, unless your doctor is happy for you to do so. If you are finding the suction painful, please let the nurses know. If you would like to leave the ward while you are connected to portable suction, you will need to be accompanied by a member of the nursing team.
How long will the chest drain stay in for?
Your doctors will explain to you how long the drain needs to stay in. The time will vary depending on your progress. It may be just a few days or a bit longer. Once your drain can come out your doctor will let you know. You may need to have several chest x-rays during this time to check progress.

How will it be removed?
The removal of the chest drain is straightforward and is done by a doctor or senior nurse. Once all the dressings are removed, the skin is cleaned, the suture is cut and then the drain is pulled out gently. You may be asked to hold your breath briefly when this is done. It can be uncomfortable but only lasts a few seconds. The wound will be dressed with gauze and a dressing. These do not need changing for two days, so you should be careful not to get them wet.

Symptoms to look out for
It is normal to still feel some discomfort in your chest after the drain has been taken out, which can be eased by taking painkillers. However, if you develop any other worsening symptoms (severe amount of pain, breathlessness and/or fever) you should tell your healthcare team.

If you have left hospital, please contact your GP.

Further information
If you would like further information please ask a member of your healthcare team.

If you need a translation of this document, an interpreter or a version in large print, Braille or on audiotape, please telephone 023 8120 4688 for help.