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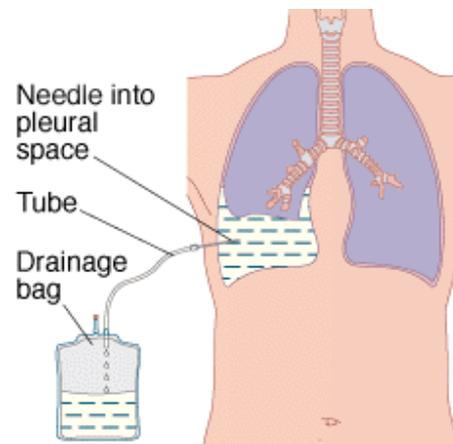
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Having a chest drain (1 of 3)

What is a chest drain?

A chest drain is a small tube that sits in the space between the lung and the chest wall. This space is called the pleural space.

The other end of the chest drain is usually attached to a bottle containing water. The water is used as a seal to prevent air from leaking back into the pleural space. Other devices such as a drainage bag or a one way valve may also be used.



Why do I need a chest drain?

You need a chest drain if you have an air leak (pneumothorax), fluid (pleural effusion) or a collection of pus (empyema) in the pleural space.

A chest drain will allow the pleural space to drain and may enable you to breathe more easily.

The drain will usually remain in place until all the air, fluid or pus has drained and your lung has re-expanded.

Are there any alternatives?

Sometimes air or fluid is removed with a needle at the bedside which is then removed immediately after the procedure (known as a simple aspiration). This is not appropriate for all conditions and then a chest drain may be considered necessary. If left untreated the air or fluid can build up and cause worsening of your symptoms.

Sometimes a surgical procedure called a thoracoscopy is needed to help diagnose and treat the problem but this is not usually necessary. Your doctor will discuss these options with you and explain why a chest drain has been recommended.

How will the chest drain be put in?

The procedure will be explained to you by the doctor inserting the chest drain. They will ask you to sign a consent form to confirm you understand the risks and benefits of having the chest drain.

Before the procedure, you may be given some painkillers or a mild sedative. You will be asked to lie on a bed with your arm above your head or alternatively to sit with your head and arms resting on a pillow placed on a table.

The doctor will cover the area with sterile towels and clean the skin thoroughly. Local anaesthetic will be injected with a fine needle to make the area numb. Different sized chest drains are used for different conditions; the most commonly used drains are thinner than the size of your little finger. The chest drain is inserted through a small cut made in the chest wall. It is normal to feel a sensation of pressure as the drain is inserted, but if you feel any pain or discomfort you should let the doctor know immediately and more local anaesthetic can be given. A stitch may be placed to secure it and a dressing applied.

Your chest drain will be monitored regularly. You may be asked to cough, or take a deep breath. This will enable the team looking after you to ensure the drain is still working well.

Chest drains can be uncomfortable, but they should not be painful. Make sure that you take your painkillers regularly. Pain will prevent normal breathing and may prolong the time your lung takes to expand. For this reason it is very important to tell the doctors or nurses if your chest is still painful.

Some chest drains need to go on 'suction'. Additional tubing goes from the bottle to the socket on the wall to apply extra suction to remove the air, fluid or pus and help re-inflate the lung. This is started at a low pressures and gradually increased as necessary.

What if it doesn't work?

If your drain doesn't appear to be working, your doctor may need to reposition the drain. You may need another chest X-ray or have a scan (ultrasound or CT). Occasionally an operation called thoracoscopy is required to help resolve the fluid or air leak. This is where a fiberoptic camera is placed between the ribs into the pleural space under general anaesthetic. Most people do not need this and your doctors will discuss it in much more detail if it becomes necessary.

Are there any risks or side effects?

Your breathing should be much easier once the chest drain is in place and very serious complications are rare (less than 1%).

Bleeding may occur if a blood vessel in the skin or chest wall is accidentally nicked. Bleeding is usually minor and stops on its own. Rarely, bleeding can occur in or around the lung in which case surgery could be needed.

There is also a small risk of infection from the procedure where bacteria can enter around the tube and cause a local infection, or occasionally around the lung. This is minimised by keeping the area clean and leaving the drain in for as short a time as possible.

Can I move around?

You can move and walk around with a chest drain but you must remember to carry the drainage bottle with you. To prevent any drainage back up the tube, the bottle must be kept upright and below waist height **at all times** otherwise fluid or air can go back up the tube into your chest. You should also check that there is enough water in the bottle to cover the end of the tube.

If the drain is on suction to encourage the re-expansion of the lung you will have to remain in your bed or chair until the suction is removed.

A small stitch and a dressing secures the drain in place but this is not strong and it is quite easy for the drain to become dislodged if pulled. Try not to 'forget' your bottle or let the tube become tangled around the furniture.

How long will it be in?

Most drains are removed within a week but your doctor will decide how long yours needs to be in place.

How is the drain removed?

The drain is removed very simply. The doctor or nurse will ask you to hold your breath and the tube is removed with a swift motion. Once the drain has been removed a dressing will be applied. A chest X-ray is often repeated after the chest drain is removed.

After the drain is removed

Occasionally, the wound may need a stitch. If so, you will need to make an appointment to have it removed by the practice nurse in your GP surgery, 5 to 7 days after insertion. If you are still in hospital, the nurse looking after you can remove it on the ward.

It is possible for the air, fluid or pus to build up again once the chest drain has been removed. If you do become more short of breath again you should discuss this with your own GP or hospital doctor who may arrange another chest x-ray.

If you have any further questions or require more explanation regarding your chest drain you should ask to speak to the doctors who are looking after you on the ward.