

**PATIENT
APPROVED** 



See your appointment letter for the number to phone with any queries you may have



www.nbt.nhs.uk/respiratory

If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

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Chest Drain

Patient Information Sheet



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What is a chest drain?

A chest drain is a narrow tube that is inserted between the ribs and sits in the space between the lung and the chest wall. This space is lined on both sides by a membrane called the pleura and is known as the pleural cavity or pleural space. A chest drain is inserted when air, fluid, blood or pus has collected in the pleural space.

The external end of the chest drain tube is attached to a bottle which acts as a seal to prevent anything from leaking back into the pleural space.

What is a chest drain for?

You need a chest drain if you have an air leak (pneumothorax), a collection of fluid (pleural effusion), pus (empyema) or blood (haemothorax) in the pleural space. Any of these can cause problems with breathing and can stop the lungs from working properly. The chest drain will allow the fluid or air to leave the body and allow your lung to re-expand.

How does a chest drain work?

Once a chest drain has been inserted the external end is connected to a bottle. The fluid or air travels down the tube, into the bottle. There are 2 types of chest drain bottle. The first type contains a small amount of water, which acts as a seal preventing air or fluid coming back up the tube into your chest. Alternatively, an electronic chest drainage device may be used (a Thopaz machine), which can deliver suction (to help the lung re-expand) and allows the doctors to measure if there is any ongoing air leak between the lung and pleural cavity.

How will the chest drain be put in?

You will either sit with your head and arms resting on a pillow on a table or lie on your bed with your arm above your head. The drain is usually put into the side of your chest below the armpit.

Before the procedure starts, an ultrasound may be performed to choose the best place to insert the drain. Ultrasound is painless and a cool gel is used on the skin to ensure good contact for the ultrasound tip. You may be offered painkillers to take before the procedure starts.

The procedure is performed using an aseptic technique to minimise the risk of infection. Your skin is cleaned with an alcohol-based liquid to kill any bacteria. A local anaesthetic is then injected into the skin to numb the area where the tube is to be inserted, which can 'sting' temporarily but resolves quickly. A small cut (approximately 2-3mm) is then made in the anaesthetised area. It is normal to feel a sensation of pressure and tugging as the drain is gently eased into the chest, but this should not be painful.

The chest drain is held in place with stitches and the exit site is covered with a waterproof dressing. The end of the tubing is connected to a drainage bottle.

Your chest drain will be monitored regularly. You may be asked to cough, or take a deep breath. This enables the doctor or nurse to ensure the drain is still functioning. You will be given regular pain relief while the drain is in place. Pain may impair your movement and breathing which may prolong the time your lung takes to expand therefore it is important to report any pain and keep it under control.

Looking after your chest drain

As the fluid or air around the lung drains you should be able to move more easily. There are a few simple rules that you can follow to minimise any problems:

- You can move and walk around with a chest drain but you must remember to carry the drainage bottle with you. Always carry the bottle below the level of your waist. If it is lifted above your waist level fluid from the bottle may flow back into the pleural space.
- Whilst in bed keep the drainage bottle on the floor.
- Do not pull on your chest drain or tangle it around your bed.
- Do not swing the bottle by the tube.
- Try not to knock the bottle over.
- If your chest is painful please tell your nurse.
- If you feel your tube may have moved or may be coming out please tell your nurse.
- Inform your nurse if you feel any increased shortness of breath.

When is the drain taken out?

How long the chest drain will be needed depends on your condition and how well you respond to treatment. Removing the drain is a simple procedure. Once all the dressings are removed, the stitch is cut and the drain is gently pulled out. The doctor or nurse may ask you to breathe in a particular way while the drain is removed. Removal of the drain can feel a little uncomfortable but only lasts a few seconds.

In some cases a stitch is left where the drain has been. This needs to be removed after 7 to 10 days.

If you experience discomfort after the drain has been taken out you can take simple painkillers. If you develop any other worsening symptoms (lots of pain, difficulty breathing or a temperature) you must tell the doctors and nurses.

Are there any risks with chest drains?

In most cases the insertion of a chest drain is a routine and safe procedure. Most people find their breathing is much easier once the chest drain is in place. However, like all medical procedures, chest drains can cause some problems:

- Chest drains sometimes fall out and may need to be replaced. This risk is minimised by stitching the drain in place and covering it with a secure dressing. You can also help by following the suggestions above ('Looking after your chest drain').
- Occasionally it is not possible to site the drain correctly and an alternative procedure may be required. Your doctor will talk this through with you if this happens.
- Pain: Most people (1 in 2 people having a drain) experience some discomfort from their chest drain but painkilling medication should control this.
- Infection: Sometimes chest drains can become infected but this is uncommon (about 1 in 50 patients). Thorough cleaning of the skin before putting in the chest drain and a good aseptic technique will help to reduce this risk. If you feel feverish or notice any increase in pain or redness around the chest drain, inform your nurse or doctor.
- Bleeding: A bruise at the site of insertion occurs commonly. Very, very rarely (in about 1 in 500 patients), the chest drain may accidentally damage a blood vessel and cause serious bleeding. If this does happen it might require an operation or other intervention to stop it.

Further information

If you require further information, please speak to your doctors and nurses.

Patient details or addressograph;

Name:

Date of Birth:

Hospital No:

Name of procedure(s)

(include a brief explanation if the medical term is not clear)

Chest Drain Insertion on the Left / Right side

(delete as appropriate)

Insertion of a tube into the pleural cavity (between the lung and rib cage) to remove air / blood / fluid / pus (delete as appropriate).

Fluid samples may be retained.

Statement of patient

You have the right to change your mind at any time, including after you have signed this form.

I have read and understood the chest drain patient information sheet, including the benefits and any risks.

I agree to the procedure described in this booklet and on the form.

I understand that you cannot give me a guarantee that a particular person will perform the procedure. The person will, however have appropriate experience.

Where a trainee performs this procedure, this will be undertaken under supervision by a fully qualified practitioner.

Signed

Date

Name (print in capitals)

Confirmation of consent (to be completed by a health professional prior to the procedure)

I have confirmed that the patient/parent understands what the procedure involves including the benefits and any risks.

I have confirmed that the patient/parent has no further questions and wishes the procedure to go ahead.

Signed

Date

Name (print in capitals)

Job title