

Having a Chest Drain

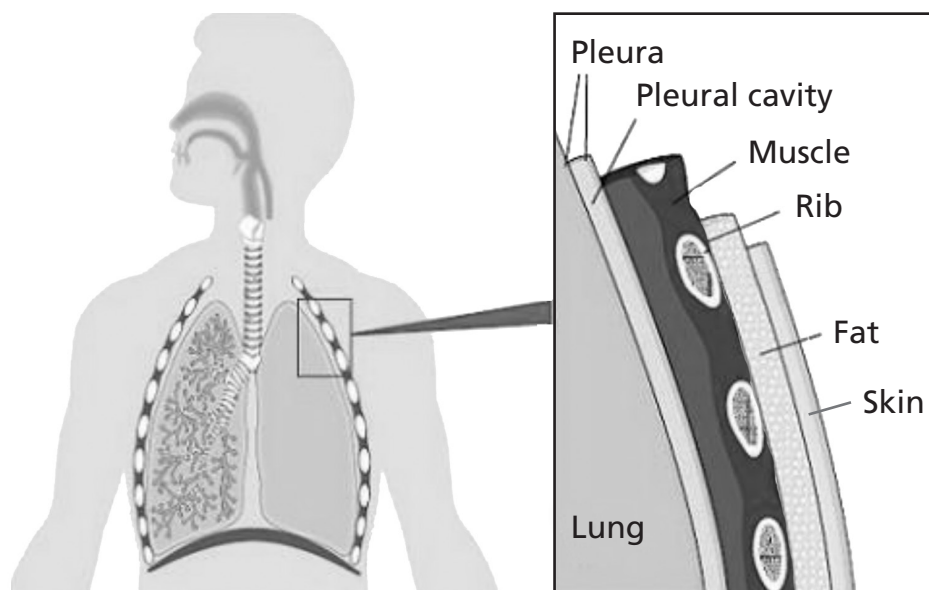
Cardiothoracic Services

Introduction

You have been advised that you need a chest drain to remove fluid and/or air which has accumulated between your lung and the chest wall. This leaflet has been prepared after talking to patients who have previously experienced the procedure. It may not answer all your questions, and if you have any remaining worries please do not hesitate to ask the doctors who are looking after you. This information leaflet should also provide you with all the background information you need.

What is a chest drain?

This is a procedure where a plastic tube is passed between your ribs through your chest wall to allow fluid and/or air, which has formed between the lung and the inside of your chest wall, to be removed. The tubes are usually the diameter of a pencil, but may vary in size. The tube is usually connected to a bottle or a bag into which the air or fluid drains. The diagram shows the area around your lung called the pleural space where the drain will be placed to remove fluid or air.



The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

What should you expect?

Preparation

The preparation is usually carried out whilst you are sitting up in bed but may be performed whilst you are sitting leaning forward over a chair. The tube may need to be inserted as an emergency in some situations, particularly if you are feeling very breathless. It is important that the team looking after you know beforehand whether you are on any blood thinning medication (e.g. Warfarin, Clopidogrel or Rivaroxaban). Please tell the doctor or nurse if you have any known allergies to any drugs, plasters / dressings or antiseptic solutions.

Consent

Having been assessed by the nursing and medical staff the procedure will be explained, including the reasons for doing the procedure, the benefits and any possible complications. You will have been given this leaflet to read. The doctor will fill in the first part of the consent form, then ask if you agree to the procedure. You will be asked to sign the second part of the consent form before the procedure is carried out. It is hoped that, having read this leaflet, you will have enough information to enable you to give your consent. If you have any further queries please ask the doctor before signing.

Ultrasound scan

If the chest drain is being inserted to remove fluid from your chest the doctor may do a scan of your chest first using an ultrasound machine. The scan can help your doctor decide the best position to insert the drain. The test does not hurt.

During the test

You will be made comfortable, either lying on your bed with your hand behind your head or, alternatively, sitting leaning over a chair.

Premedication

Insertion of the chest drain can be uncomfortable and to prevent this, the doctors will administer a painkiller.

These drugs will be given orally, into the muscle of your leg or alternatively a thin tube, introduced with a needle will be placed into a vein in your arm or hand and medication given through it.

Procedure

The equipment needed to place the chest drain will be brought in on a small trolley. The doctor carrying out the procedure will be assisted by one of the nursing staff or a doctor. First of all, the doctor will make sure that the skin where the tube is to be inserted is sterile by cleaning with a liquid which may feel a little cold. The doctor will then inject some local anaesthetic into the area where the chest drain is to be passed through the chest wall. This may sting a little at first but as the local anaesthetic takes effect the skin and muscle of the chest wall will become numb.

The doctor will ensure that the anaesthetic has taken effect before then making a small cut in the skin and making a small hole through the muscle of the chest wall through which the chest drain can be placed. You may be aware of a pushing sensation while this is taking place. Once the doctor is happy that an adequate hole has been formed then the tube will be pushed through the hole into the inside of your chest.

The tube will then be connected to a bottle or bag to allow the air or fluid to come out. To prevent the tube from slipping out the tube will be secured to the chest wall by stitches and a dressing. The procedure will take approximately 10-20 minutes.

After the chest drain has been inserted

The doctors will request a chest X-ray to check that the tube is in the correct place. Rarely the tube may need to be moved to ensure complete drainage of any fluid or air. After the chest drain is in place you will be left to rest and are encouraged to move about a little afterwards. When the local anaesthetic wears off you may experience some discomfort so you will be given some regular painkillers to prevent this from happening.

If there is a bottle attached to the tube you may see the fluid running into it. This may be clear, blood-stained or occasionally pus-like in nature. If the tube has been placed to remove air then you may see this bubbling through the bottle or alternatively through a bag if this is attached to the end of the tube. In a small number of cases the bottle will be attached to a wall suction device to help the flow of air through the tube. Once all the fluid and air has been drained out the tube will then be removed. The tube and bottle are usually removed after few days and most patients stay in hospital until the drain is removed.

Some patients are discharged home with chest drains but this would be discussed with you and your family first

What happens when the tube is taken out?

The dressing will be removed from around the tube. The stitches that are holding in the tube will be cut and the tube will be pulled out of your chest. At the point when the tube is removed you will be asked to hold your breath.

The doctor or nurse carrying out the procedure will advise you about this. A stitch will have been left in around the tube site so these can be pulled together when the tube is taken out.

A dressing will then be put over the place where the tube was put in. The stitches will then be taken out 7-10 days later. If you are not in hospital at the time these can be taken out at your general practitioner's surgery or alternatively at home by the district nurse.

Complications

Drain blockage

Occasionally the drain may become blocked (eight in one hundred cases) but this can usually be resolved by flushing the tube or relieving a kink that has occurred.

Spread of air beneath the skin

Occasionally air will escape around the tube and track up underneath the skin. This can produce puffiness and swelling of your arms, head and neck but is not associated with discomfort and is perfectly harmless, but may take a few days to completely subside. Sometimes the position of the tube may need to be changed and once leaking around the tube has stopped the air underneath the skin quickly goes away.

Infection

It is very uncommon for infection to be introduced into the chest cavity (2 in 1000 cases) unless the chest problem has been caused by previous trauma, i.e. a road traffic accident or if the drain is being used to drain infected fluid within the chest. The chest wall tract can occasionally become infected which may cause some discomfort and discharge around the wound site. The incidence of this occurring is approximately one in forty.

Bleeding and trauma to organs in the chest

Very rarely patients have suffered trauma to their organs in the chest, i.e. lung or heart, through insertion of a chest drain. This is very uncommon (2 in 1000 cases) and would be very unlikely to occur.

Rarely one of the nerves that runs around the chest wall can be damaged and may result in chest wall discomfort or numbness.

Are there any other procedures that may be carried out when the tube is in place?

Occasionally substances may be introduced through the chest drain to prevent any fluid or air coming back. This technique is called pleurodesis. This is a relatively simple procedure where the doctors will flush fluid containing the treatment through the drain into the chest cavity. The drain is then clamped and later the fluid is then drained off and the tube removed, as described above.

What will happen to any fluid taken out of my chest?

Any fluid taken from your chest will be sent to the laboratory for analysis. Examples would be to try and grow any bugs that might require treatment with antibiotics and to inspect the type of cells present in the fluid. This may identify the cause of the fluid forming.

What if I don't have the chest drain?

The chest drain will have been recommended to remove a large amount of fluid / air from around the lung. Removing the fluid / air would be designed to help both your symptoms of breathlessness, to help seal up any holes in the lung and provide an opportunity to stop the fluid or air re accumulating. Finally, samples taken may help diagnose the cause of any fluid accumulation. Choosing not to have the drain put in may make treatment of your condition difficult but alternative measures may be available and you should discuss these with your doctor.

Other useful links

British Thoracic Society

www.brit-thoracic.org.uk

British Lung Foundation

www.lunguk.org

Contact details:

Cardiothoracic Ward:

01902 694306

Wound Clinic in the Heart and Lung Centre

Outpatient Department:

01902 694605

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。