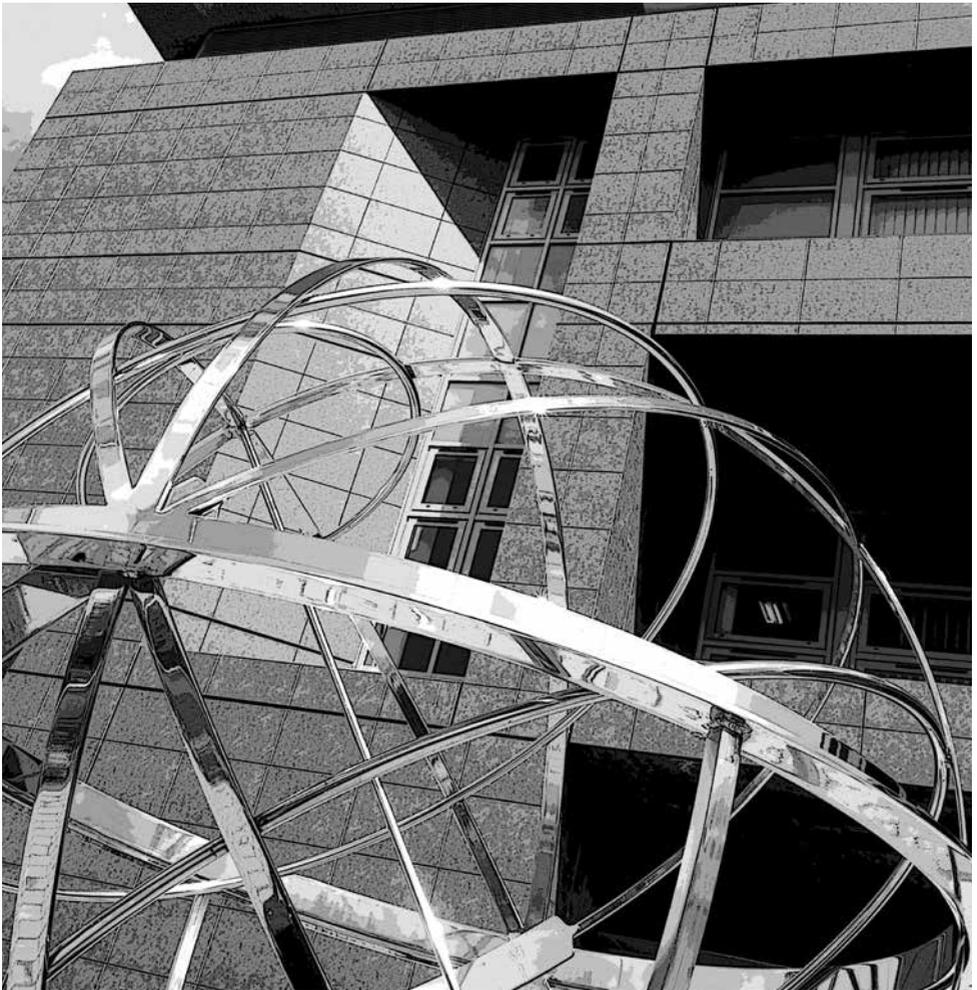


Image-guided chest drain insertion

Information for patients



What is image-guided chest drain insertion?

A chest drain is a thin plastic tube which is inserted into an abnormal collection of fluid or air surrounding the lung. It is used to remove this fluid or air from the body.

The drain is guided into place either using ultrasound (high frequency sound waves) or a CT scanner. These machines take images of your chest and will show up the abnormal area. Your doctor will then be able to see the best place to insert the drain.

A CT scan (Computed Tomography scan) uses X-rays to create many images of your body in 'slice sections'.

The CT scanner looks like a large open white ring, rather than the tunnel that everybody expects!

What are the benefits of having a chest drain?

Other tests that you may have had, such as a previous chest X-ray or CT scan, have shown a collection of fluid or air around your lung. The doctors looking after you have decided that you should have a chest drain inserted in order to help them to diagnose the cause of this and also to help make you feel better.

What are the risks?

Chest drain insertion is generally considered a safe procedure.

- There is a small risk of bleeding or bruising.
- There is a small risk of infection. This risk can be reduced by careful cleaning of your skin and using sterile equipment.
- There is a small risk of damaging organs which are close to the fluid collection.
- You may feel some discomfort in the area where the drain has been inserted once the local anaesthetic wears off; this can be controlled with painkillers if required.

Sometimes the drain may not remove all of the fluid; the doctors looking after you will know if this is likely and may arrange further tests to check if this has happened. The doctor performing the chest drain insertion will discuss the specific risks with you before asking your permission (consent) for the procedure to go ahead.

What should I do to prepare for the procedure?

Please do not eat for 6 hours before your procedure. You may drink water up to 2 hours before your appointment. Unless we tell you otherwise, continue to take your regular medication as usual, with a small amount of water.

Can I bring a relative or friend?

Yes, but for reasons of safety they will not be able to go with you into the CT scan room, except in very special circumstances.

If you are having a drain insertion using ultrasound, they can normally go with you into the room.

What does a chest drain insertion involve?

When the procedure is due to start, a member of staff will ask you to remove your clothes from the top half of your body and to put on a hospital gown. You will then be shown into the scan room where you will meet the doctor.

The doctor will explain the procedure, how it will be performed and the risks involved. The doctor will then ask you to sign the consent form to give your permission for the drain insertion to go ahead. If you have any questions or concerns, please ask the doctor before signing the consent form.

If the doctor is using ultrasound to position the drain, you will be asked to sit on the side of the bed, facing away from the doctor and the ultrasound machine. The doctor will spread some gel on your skin and will use the ultrasound probe to find the abnormality seen on your chest X-ray or CT scan.

If the doctor is using the CT scanner, you will be asked to lie on the scanner couch. It is important to make sure you are as comfortable as possible as you will need to stay in this position for around 30 minutes. You will be asked to lie very still while we do an initial CT scan to find the fluid or air collection.

When the safest site for the drain insertion has been found, the doctor will mark your skin with a pen. The doctor will then clean your skin to make it sterile.

They will then use a small needle to inject local anaesthetic around the area where they will put the drain. This will make the area go numb. A slightly larger needle will then be inserted through your skin into the fluid or air. A soft wire will be passed through this needle and a drainage tube will then be placed over the wire and guided into the right position. The ultrasound machine or CT scanner will be used several times during the procedure to make sure the drain is put in the correct place.

Once the drain is in position, if you have a collection of fluid, a small amount may be collected to send to the laboratory for analysis.

The drain will be fixed to your skin using a special dressing and connected to a drainage bottle.

The whole procedure normally takes 20-30 minutes.

Does it hurt?

You will only feel a small scratch or discomfort during the drain insertion. Some people feel a scratch and stinging sensation when the local anaesthetic is injected, but the skin should then become numb. Please tell the scanning staff if you are in discomfort during the procedure.

What happens after the procedure?

After the drain is inserted, you will be taken to a ward or observation area to have the drain connected to a drainage bottle. Normally you will need to stay in hospital, usually overnight, until all the fluid or air has drained.

The doctors looking after you will then remove the drain and decide when you can be discharged (sent home). Removing the drain should not be painful. It is a simple procedure which can be performed at your bedside simply by gently pulling on the drain.

What happens when I go home?

You will be given an information sheet to take home with you. This explains what to do and who to contact if you have any problems after the procedure.

How to contact us

If you have any questions or concerns, please contact the Radiology Department using the number on your appointment letter.

Further information

More patient information is available on the following websites:

ImPACT – CT scanner evaluation group

Website: www.impactscan.org/patientguide.htm

Oxford University Hospitals NHS Foundation Trust

Website: www.ouh.nhs.uk

NHS Choices

Website: www.nhs.uk/Pages/HomePage.aspx

Royal College of Radiologists (RCR)

Website: www.goingfora.com

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

Author: Rachel Benamore, Consultant Radiologist
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Oxford University Hospitals NHS Foundation Trust
Oxford OX3 9DU
www.ouh.nhs.uk/information

