Chest Drain Insertion

Interventional Radiology

This leaflet provides information about the procedure, what to expect on the day, the potential risks and important information for afterwards.

Prior to the procedure, you will have a telephone consultation, where you will have the opportunity to ask further questions.

Please note that this leaflet is not meant to replace discussion between you and your doctor. You should raise any questions you may have with the doctor who has referred you or with the doctor who will be performing the procedure.

What is a chest drain insertion?

A chest drain insertion is a procedure used to remove fluid or air from around the lungs (the pleural space).

This may be required if there is a build-up of fluid (pleural effusion), blood, infection (empyema), or air (pneumothorax), which can affect how well your lungs expand and make breathing difficult.

A thin tube (chest drain) is inserted through the skin into the pleural space to allow the air or fluid to drain.

The procedure is usually performed using ultrasound guidance to ensure accurate and safe placement.

Why do I need a chest drain?

You may be offered this procedure if you have a build-up of air or fluid around your lungs causing symptoms such as:

- Shortness of breath
- Chest pain
- Persistent cough
- Reduced oxygen levels

A chest drain helps relieve pressure on the lung, allowing it to re-expand and improving your breathing.

Tel: 01932 723470 **Email:** asp-tr.ir-referrals@nhs.net

How do I prepare for a chest drain insertion?

You will have a pre-assessment telephone consultation with a nurse before your admission and may be asked to have blood tests before the procedure.

You can usually eat and drink normally, unless you are advised otherwise.

As it's a day case procedure, you need to arrange for an adult to collect you from the department and someone to stay overnight with you.

The procedure will take place in the Interventional Radiology (IR), within the Radiology Department at St. Peter's Hospital. When you arrive, you will be given a hospital gown to change into, and a nurse will insert an IV cannula.

A member of staff will discuss the procedure with you; answer any questions you may have and ask you to sign a consent form if you are happy to proceed.

The procedure will likely be performed under local anaesthetic.

If you are feeling unwell closer to the day of the procedure, please let the team know.

How is a chest drain insertion performed?

You will usually be positioned sitting up or lying slightly on your side.

Ultrasound is used to identify a safe area for drain insertion. The skin is cleaned and numbed with local anaesthetic.

A small incision is made, and a tube is inserted into the space around the lung. The drain is connected to a collection system to allow air or fluid to be removed.

The drain may remain in place for several hours or days, depending on how much air or fluid needs to be drained.

A dressing is applied to secure the drain in place.

An X-ray may be done before or/and after removal of the drain.

What are the potential risks and complications of a chest drain insertion?

Chest drain insertion is a commonly performed and generally safe procedure. However, as with all medical procedures, there are some risks:

Pain or discomfort

- Common (up to 30-50%)
- Usually mild to moderate and managed with pain relief

Bleeding

- Minor bleeding or bruising can occur (up to 5-10%)
- Significant bleeding is uncommon (<1-2%)

Infection

- Occurs in approximately 1-3% of patients
- May require antibiotics

Damage to surrounding structures

- Injury to the lung, diaphragm, or nearby organs is rare (<1%)
- Ultrasound guidance helps minimise this risk

Pneumothorax (air leak)

- Can occur or worsen during the procedure
- May require further treatment

Drain blockage or dislodgement

- The drain may become blocked or move out of position (up to 5-10%)
- May require adjustment or replacement

Re-expansion pulmonary oedema

- Rare complication (<1%) when large volumes of fluid are removed
- Can affect breathing and requires treatment

Subcutaneous emphysema (air under the skin)

- Occurs in a small number of cases (<5%)
- Usually resolves without treatment

Failure of drainage

- Occasionally, the drain may not effectively remove the fluid or air

What happens afterwards?

After the procedure, you will be monitored in a recovery area or ward.

- Your blood pressure, pulse, oxygen levels and comfort will be monitored
- A chest X-ray may be performed to check the position of the drain and lung expansion
- The drain will remain in place until enough fluid or air has been removed

You should:

- Follow advice from the medical team regarding movement and activity
- Keep the drain and dressing secure
- Inform staff if you notice increased pain or issues with the drain

If you are discharged, you should:

- Keep the dressing clean and dry
- Avoid strenuous activity for a few days

Seek urgent medical advice if you experience:

- Increasing shortness of breath
- Chest pain
- Fever or signs of infection
- Redness, swelling, or discharge at the insertion site

Follow-up will be arranged with your referring team depending on your condition.

Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty. If they cannot resolve your concern, please contact our Patient Experience Team on 01932 723553 or email asp-tr.patient.advice@nhs.net. If you remain concerned, the team can also advise upon how to make a formal complaint.

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You can use Text Relay to turn telephone communications into text. Use the Relay UK app on your phone, tablet or PC. You can also use Relay UK via Minicom or Uniphone.

اگر نیاز به ترجمه دارید، لطفا با شماره 01932 723553 تماس بگیرید.

ਜੇ ਤੁਹਾਨੂੰ ਤਰਜਮੇ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ ਤੇ ਫੋਨ ਕਰੋ: 01932 723553

اگر آپ اس کا اردو زبان میں ترجمہ چاہتے ہیں، تو براہ کرم اس فون نمبر 01932 723553 پر رابطہ کریں

Se precisa de uma tradução por favor contacte: 01932 723553

আপনার অনুবাদের দরকার হলে এখানে যোগাযোগ করুন : 01932 723553

यदि आपको अनुवाद की ज़रूरत है तो कृपया इस नंबर पर फोन करें: 01932 723553

Jeżeli chcemy, aby te informacje w innym języku, proszę zadzwonić 01932 723553

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