

Having a diagnostic or therapeutic pleural aspiration to remove fluid from around your lung

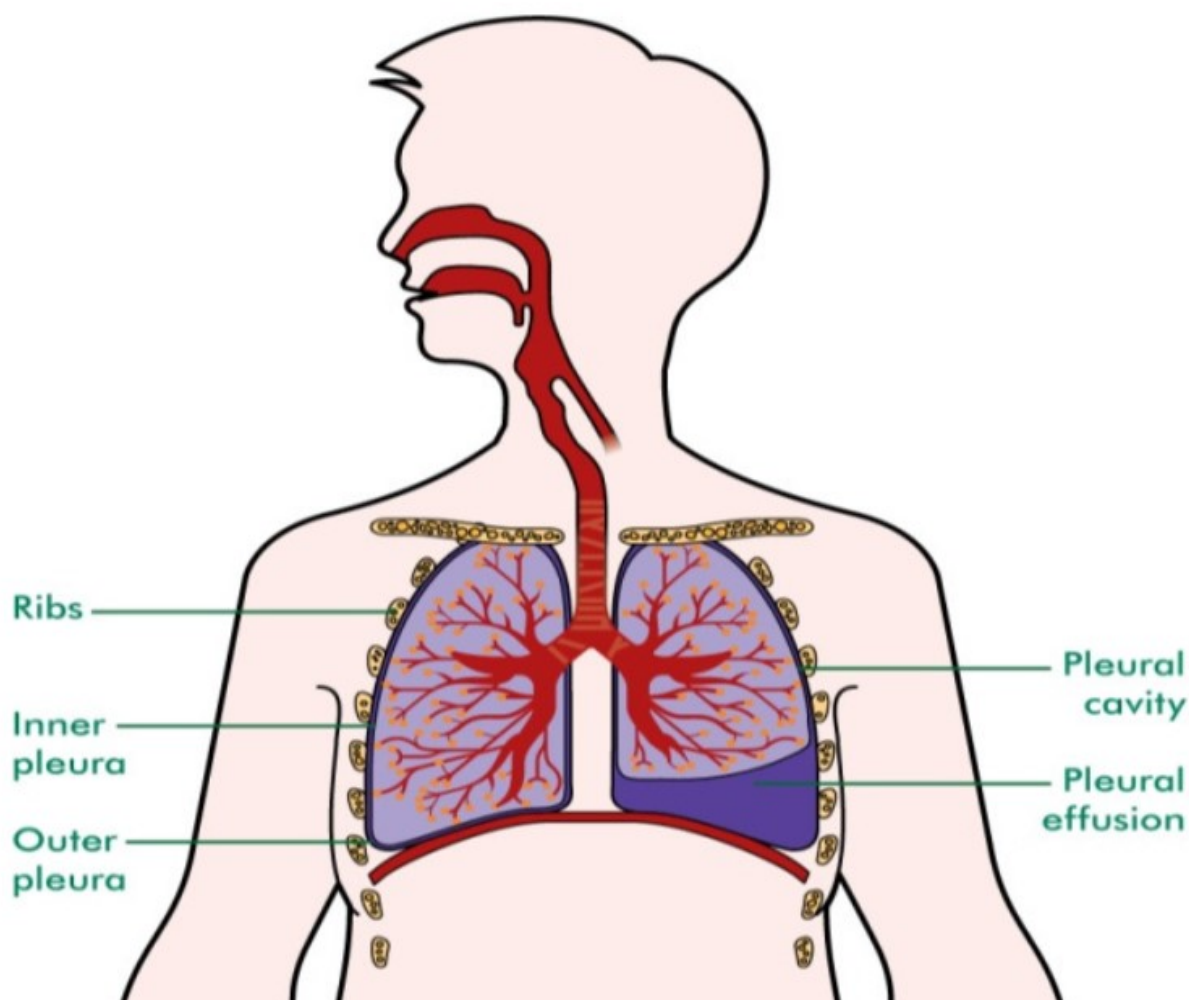
Respiratory Department

Information for Patients

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Introduction

This leaflet is for patients who are to have a diagnostic or therapeutic pleural aspiration.

What is a pleural aspiration?

A pleural aspiration (thoracentesis) is a procedure that removes fluid from the space between the lungs and the chest wall (the pleural space or cavity). A **diagnostic** pleural aspiration takes a small volume (usually 20 to 100ml) of fluid so tests can be done on the fluid. A **therapeutic** pleural aspiration removes a larger volume of fluid (up to 1.5 litres). This is to improve breathlessness as well to allow tests to be done on the fluid sample taken.

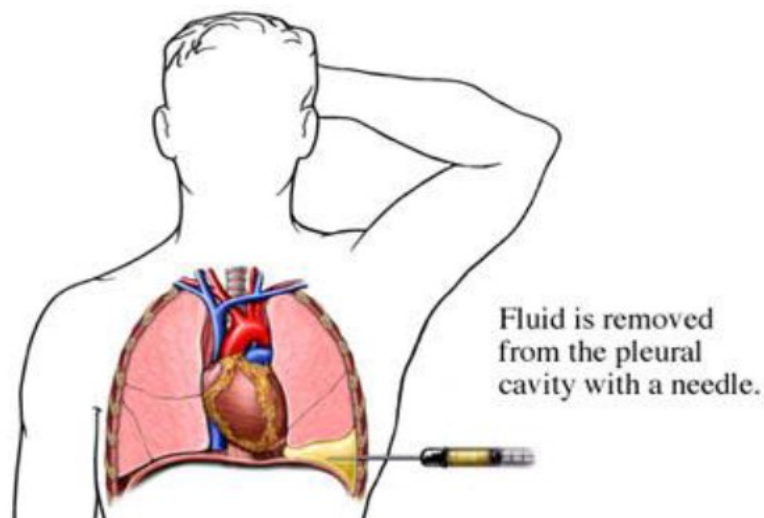


Image courtesy of BTS pleural diseases guideline 2010

Why do I need a pleural aspiration?

Between the 2 layers of lung, there is a very small space (pleural space) which is usually almost dry. In your case fluid has collected in this space. If there is a lot of fluid then the lung cannot work properly. This makes you short of breath.

A **diagnostic** pleural aspiration allows a sample to be taken to find out why this fluid is there and plan treatment. A **therapeutic** aspiration also removes a larger amount of fluid to improve your breathing.

What are the benefits of the pleural aspiration?

Removal of the fluid aims to improve your breathlessness. Taking a sample of the fluid also lets it to be tested in a few ways to find out why the fluid is building up.

There are a few possible reasons for this fluid to build up, including:

- infection such as pneumonia or possibly tuberculosis (TB).
- cancerous deposits in the lining of the lung.

- inflammatory processes (such as related to rheumatoid arthritis).
- as a result of processes in other organs, such as heart failure or kidney disease.
- build-up of fluid after heart surgery.

What are the risks of the procedure?

This is a very safe procedure with few risks. The doctor doing the procedure will discuss the risks with you and ask you to sign a consent form. The more common side effects are:

- **pain:** sometimes the injection of local anaesthetic can be sore. There can be a slight “catch” as the needle enters through the lining of the lung (this area can be difficult to numb).
- **bleeding:** there is a slight risk of bleeding caused by the needle used for the sample. The place that is chosen for the sampling aims to reduce the risk of bleeding.
- **infection:** the procedure is done in a sterile way to reduce any risk of infection in the fluid.
- **collapse of lung:** where air collects into the pleural space. This can resolve itself or may need treatment with a chest drain.
- **organ puncture:** this is when the needle used accidentally catches the lung itself or another organ such as the liver or spleen. This risk is reduced by using an ultrasound at the time to find the best site for sampling. The risk of this is very low.

How is pleural fluid aspiration carried out?

- The procedure will be done by a specialist doctor or a trained specialist nurse in the procedure room.
- You will be able to ask any questions.
- You will need to sign a consent form if you are happy to go ahead.
- You will sit on the end of the bed. Your head and arms will rest on a pillow on a table in front.
- The best site for the procedure is found using an ultrasound scan machine. This scan is not invasive and will not hurt.
- Your skin is cleaned with an alcohol cleaner to kill any germs.
- A local anaesthetic is then injected to numb the area. This can sting for a short time but does not last long.
- The doctor inserts a thin needle or narrow tube through the chest wall into the pleural space, and any fluid or air is removed.

How long will it take?

The procedure itself is fairly quick. A diagnostic aspiration alone takes about 15 minutes. A therapeutic aspiration takes longer because more fluid is being removed.



The whole procedure takes about 45 minutes. This includes

- the time taken to do the ultrasound scan,
- explain the procedure,
- complete the consent form
- and take the fluid sample.

Aftercare advice

After the procedure a small dressing will be put over the site. This can be taken off after 24 hours.

Your results

Your sample will usually take 7 to 10 days to be processed. You will be seen in clinic for the results.

If you have any issues you should either

- contact your GP explaining that you have had a pleural aspiration,
- or telephone your consultant's secretary (this number can be found at the top of your clinic letter).
- If out of hours, or over a weekend, you can come to the Clinical Decision Unit, Ward 19, at Glenfield Hospital.

Contact details

Secretary to Consultant: 0116 258 3488

Pleural Specialist Nurse: 0116 258 3975

Pleural Service Co-ordinator: 0116 250 2474

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