

PATIENT INFORMATION

PERCUTANEOUS BIOPSY OF PLEURA (Ultrasound guided)



What is an ultrasound guided pleural biopsy?

An ultrasound scanner transmits high frequency sound waves and captures their reflection to make images of the internal organs. Ultrasound helps us confirm the presence of fluid between the linings of your lungs and also help us identify a suitable site to perform a biopsy of the outer lining of your lung called parietal pleura, hence improving the safety of the procedure. The pleura is a two layered membrane that is on both the inside of your chest wall and outside of your lung. The samples are taken with a special biopsy needle. The samples are looked at under a microscope in the hospital's laboratory to help find out the cause of the problem.

How an ultrasound guided pleural biopsy is performed?

Prior to the procedure, the doctor or nurse looking after you will discuss any medications that may need to be stopped. Please inform the team if you are taking any medications that thin your blood.

Your skin will be cleaned with antiseptic solution and local anaesthetic injection into the procedural area to minimise the discomfort. Using the images shown on ultrasound screen, a needle will be inserted through your skin into the pleural space and samples of the outer lining of your lung will be taken. You should not feel any pain during the biopsy but you may feel some pressure as the needle is inserted.

Some techniques use a needle which produces a loud click when the sample is taken. As the needle comes out it brings with it a small sample of tissue.

In most situations, some fluid from the linings of your lungs will be drained after the biopsy so that it can be sent for microscopic analysis as well as improve any symptoms of shortness of breath and chest pain.

What are the benefits?

All the imaging investigations you have had such as chest X-ray or CT scan have shown abnormality in your chest and your doctor has recommended this procedure to help find out what may be causing the abnormality and decide the best way of treating it. Given it will be performed at the same time when fluid samples from the linings of the lungs will be taken, it will not add any extra journeys to the hospital and will improve the chances of finding the cause of the problem in comparison to analysing the fluid alone.

Are there any serious or frequent risks?

Every invasive procedure holds risks that are balanced against the benefits before it is performed.

Ultrasound guided pleural biopsy is considered to be a safe procedure but occasionally complications can occur because of the test's invasive nature.

These include:

- **Bleeding:** Internal bleeding from the puncture site can occur. The bleeding will normally stop on its own. Occasionally the bleeding is more severe and a blood transfusion may be required. Extremely rarely, you may need a further procedure to stop bleeding.
- **Pneumothorax (collapse of lung):** There is a very small risk of the needle resulting in a collapse of lung. This is less likely as this procedure will only be carried out if there is enough fluid between the linings of your lung. In most patients, however, if it happens the amount of air that escapes from the lung is small and is reabsorbed by the body in few hours-days. If the air leak is large or persistent, a tube called a chest drain will need to be inserted.
- **Infection:** There is small risk of infection of the puncture site or the linings of the lungs. This is reduced by using aseptic technique (cleaning material on the skin and using sterile equipment).
- **Pain /discomfort:** This is minimised by the use of local anaesthetic.
- **Reaction to local anaesthetic:** There is a small risk of reaction to the drug used to anaesthetise the skin.
- **Non-diagnostic investigation:** In some situations, the test is unable to provide the diagnostic samples to confirm the cause of the problems and you may require further investigations.

Are there any alternatives?

There are alternative procedures to ultrasound guided pleural biopsy such as video assisted thoracoscopy (VATS), however it is more invasive and is performed under general anaesthesia by cardiothoracic surgeons. There may be other alternatives such as bronchoscopy to obtain tissue samples or you may wish to only have the fluid drained and sent for analysis rather than having the biopsy completed on the same occasion.

How soon will I recover?

After the procedure, you will be monitored in the ward by the nurse and once everyone is satisfied you will be required to go for a chest x-ray before you can go home. You will be able to go home on the same day in most circumstances. Most people will feel back to normal within 24 hours after the procedure. You can take the dressing off the wound site the next day of the procedure and can take a bath/shower as normal.

When to contact your doctor or emergency services?

If you have any of the following, please contact your doctor.

- Breathlessness (worse than usual)
- Excessive bleeding from the biopsy site
- Experience excessive sweating or shivering or have a temperature
- Feel generally unwell
- Increasing pain

How will I get the results of the biopsy?

The results of the biopsy will be available 7-10 days later and your doctor will see you in the clinic to inform you. On average, the biopsy will provide a diagnosis in 7 out of 10 patients.

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.