

# Ultrasound-Guided Pleural Biopsy

## Information for patients

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The area between your lung and your rib cage is called the pleural cavity or pleural space. This space is lined by a thin layer of cells called the 'pleura'.

An ultrasound-guided pleural biopsy takes a sample of the pleura using a special needle. Staff in a laboratory then look at this sample under the microscope to help diagnose the underlying problem.

You might have a pleural biopsy if a chest X-ray or scan suggests you have:

- A build-up of fluid in your pleural cavity or space
- Thickening of the pleura.

The procedure will be carried out by a healthcare professional with the appropriate experience. If the procedure is carried out by a clinician who is training to perform the procedure, they will be supervised by a fully qualified practitioner.

The procedure will be done under local anaesthetic. This is an injection to numb the area. The procedure will usually take place in a procedure room at the hospital and you should go home the same day.

## Before a pleural biopsy

Please take any normal medicines including painkillers before you come in for your procedure. If you are on any blood thinning medication such as Apixaban, Clopidogrel, Warfarin or blood-thinning injections, you will be contacted before your appointment to arrange for these to be stopped in advance. If you have not been given any instructions, or have any concerns, please contact the Respiratory nurses for advice.

If you take medication to thin your blood or have a history of bleeding disorder, you will need to have a blood test before your procedure. This will be taken at your appointment.

## During a pleural biopsy

You will be asked to make yourself comfortable. This might be sitting down, leaning forward and resting your arms on a table; or it might be lying on your side.

You will have an ultrasound scan to find the best place to have the biopsy.

The skin for the biopsy site will be cleaned and a local anaesthetic will be injected into the skin and into the pleural membrane. This might sting slightly for a short period.

Once the area is numb, a very small cut will be made in the area. A special biopsy needle is then passed through this cut into the pleural lining.

This needle is used to take samples (biopsies) from the lining of the chest wall. We might take 3 to 4 biopsies from the area. This is not usually painful. You might feel gentle pressure and hear a 'click' sound as the needle takes the sample.

## After a pleural biopsy

A dressing will be applied to the site which can be removed after 24 hours.

After the biopsy you can eat and drink normally and you should be able to resume normal activities, including light work after 24 hours.

You will need a chest x-ray around 1 hour after the procedure to check for any problems after the procedure.

It usually takes 7-10 days to get the results from a pleural biopsy, but can occasionally be longer. You will be given a follow up appointment to return for your results.

## Risks of a pleural biopsy

A biopsy is a safe procedure, but as with any procedure there are some uncommon risks which are listed below. These risks are usually minor and easily treated.

- Air collecting in the pleural space (pneumothorax), due to the needle puncturing the wall of the lung. The problem usually heals itself without treatment. However, in some cases a large amount of air may leak and cause the lung to collapse. If this happens, it can be treated with a chest drain and admission to hospital.
- Pain, bleeding, bruising or infection where the needle was put in.
- Bleeding in or around the lungs happens in rare cases because of the cut that was made in the chest to insert the needle.

## Other treatment options

The other option is to have a video-assisted thoracoscopy. For this procedure, the doctor puts a camera into the space between the lung and chest wall.

## Giving your permission (consent)

We want to involve you in decisions about your care and treatment. If you decide to have a pleural biopsy we will ask you to sign a consent form. This says that you agree to have the procedure and understand what it involves. You may change your mind at any time, even after you sign the consent form.

If you would like more information about our consent process, please speak to a member of staff caring for you.

## Useful phone numbers

Royal Infirmary of Edinburgh    Respiratory Nurse Specialists (Mon-Sun 7am-4pm) – 07977 282 716

Western General Hospital    Mon-Fri 9am-5pm – 0131 537 2348 / 07773 745 287

Out of hours and weekends (Ward 54) – 0131 537 3554

St John's Hospital    Respiratory Nurses (Mon-Fri 8am-4pm) – 01506 523 865

If you have any questions or concerns about a pleural biopsy, please contact the relevant specialist nurses on the numbers above.

Out of hours or in an emergency, please contact your GP, NHS 24 (dial 111), or attend Accident and Emergency.

