

# CT guided lung needle biopsy

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This information has been prepared to help you and your relatives understand more about your planned procedure. It also gives you general information about what to expect from the time of your admission to your discharge home from Salisbury Hospital, and some practical advice on what to do when you get home.

## Reasons for needing a CT guided lung needle biopsy

The doctors' examination and other tests, such as an X-ray or CT scan have detected an abnormality in your lungs. A lung biopsy is a procedure where a small sample of abnormal tissue is obtained to help diagnose the cause of the abnormality. It can also help the doctor decide whether you need further treatment. It is usually performed as a day case procedure.

## What is a CT guided lung needle biopsy?

It is a procedure where a tiny sample of cells is removed from the lung and sent to the laboratory for examination. It involves inserting a fine needle through the chest wall and into the lung under local anaesthetic.

## What does a lung needle biopsy involve?

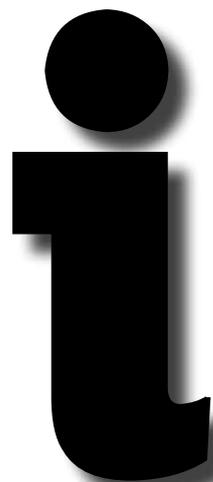
The biopsy and collection of cells from your lung is obtained with the help of a CT scanner. The CT scan is used to identify the best approach and site for taking the biopsy. The entire procedure takes place in the CT scanning room.

## What are the benefits of having a lung needle biopsy?

Your chest physician has recommended a lung needle biopsy because they feel that the benefit to you of having this test outweighs any risks. The benefit to you will be in obtaining a diagnosis of your chest problem so that the right treatment can be given. In cases where nothing abnormal is found we can reassure you of this fact. The decision to offer you a lung needle biopsy has been carefully considered by your doctors.

## What are the potential risks of having a lung needle biopsy?

This is a relatively safe procedure but, as with any medical procedure, there may be small risks involved. The radiologist that performs the test will discuss all the risks and benefits of the procedure with you as part of the consenting process. The radiation dose is similar to that of other X-ray examinations and poses only a very small risk.



If you need your information in another language or medium (audio, large print, etc) please contact Customer Care on 0800 374 208 or send an email to: [customer care@salisbury.nhs.uk](mailto:customer care@salisbury.nhs.uk)

You are entitled to a copy of any letter we write about you. Please ask if you want one when you come to the hospital.

Please complete The Friends & Family Test to tell us about your experience at: [www.salisbury.nhs.uk/FriendsFamily](http://www.salisbury.nhs.uk/FriendsFamily) or download our App from the Apple App store or Google Play Store.

The evidence used in the preparation of this leaflet is available on request. Please email: [patient.information@salisbury.nhs.uk](mailto:patient.information@salisbury.nhs.uk) if you would like a reference list.

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## Mild complications

It is common to have a bruise up to the size of a 50p around the needle biopsy site; this will disappear naturally within 2/3 days. The plaster can be removed after 24 hours.

## More serious complications

A puncture of the lung resulting in a small air leak (or pneumothorax) can occur when biopsies are taken. This can cause a sharp pain in the chest and some breathlessness. The risk of this is about 1 in 3 patients. However, in most cases the air leak is very minor and heals up itself without the need for further intervention.

Occasionally, (around 1 in 20 procedures) a larger pneumothorax occurs and you may need to stay in hospital and have a chest drain (a thin tube) inserted in between two ribs under local anaesthetic to remove any air leaking from the lung.

Slight bleeding may occur from the lung when biopsies are taken. Some people cough up a little blood during or shortly after the procedure.

## Very serious complications

Internal bleeding requiring an operation to stop it is very rare (1 in 1000 procedures).

Air embolism. Very rarely air can leak into the blood circulation following a lung needle biopsy. If this occurs it can cause chest pain or serious problems like a heart attack or stroke. The risk of this complication occurring is 1 in 3,000 procedures.

Death as a result of the procedure is extremely uncommon. The risk of this complication occurring is one in 5000 procedures.

## Your admission to hospital

If you are having a CT guided biopsy you will be admitted to radiology recovery.

Please follow the instructions on the letter that you are sent or in the phone call that you received which advised you where to go on arrival at the hospital. Your arrival should be planned to allow time for preparation in readiness for the procedure, 30 minutes prior to the biopsy appointment.

You will usually be able to go home a few hours after the procedure on the condition that you do not drive yourself and you will not be alone on return to your home and for the night following your procedure.

## Preparation for your procedure

Your letter or phone call will advise you not to have anything to eat or drink after 7:00am on the day of your admission. Please bring any medication that you normally take with you. You are advised to leave any valuables at home. Please bring your toiletries and nightwear with you in case you need to stay in overnight.

Please also tell us if you have any allergies or if you may be pregnant. The nursing staff in Radiology will welcome you, admit you and prepare you for the procedure.

## Medication instructions in preparation for your procedure

Most tablets and medicines can be taken safely before the test. There are some exceptions; however, including medicines for the control of diabetes so please phone the numbers at the end of this leaflet for advice and further information.

If you are taking any blood thinning medications such as apixaban, clopidogrel, warfarin, dabigatran or rivaroxaban and you have not received advice on stopping it by the doctor in the Outpatients department, please either contact your GP or phone the hospital on one of the numbers at the end of this leaflet for advice and further information.

## What happens during the procedure?

Nursing staff will accompany you to the CT scanner. You will be dressed in a hospital gown. The radiologist (doctor) who will perform the biopsy will explain the procedure and answer any questions or concerns you may have. You will then be asked to lie on the CT table on your back, front or side and staff will help make you as comfortable as possible. The CT scanner is not enclosed. The table on which you are lying will move into the scanner and the radiologist will take a series of pictures to check the position of the abnormality in your lung. It is important to try to lie very still, breathe gently and try not to cough during the test. The doctor will then clean your skin at the site of the biopsy and use a local anaesthetic to numb the skin before a thin needle is passed into the lung. The local anaesthetic injection may sting initially but this will soon pass.

The actual biopsy may feel a little uncomfortable and you may feel a pushing sensation when the biopsy is being taken. The procedure usually takes approximately 30-45 minutes.

## What to expect afterwards

After the procedure you will be taken back to radiology recovery and asked to lie on your side or back for an hour. After this you will be able to eat and drink. Please tell the nurse if you have any pain. You will be offered painkillers if you need them. After two hours a routine chest X-ray will be performed. This will be checked by a doctor and if everything is OK you will be able to go home.

## Care on discharge home from hospital

Please make sure that you arrange for someone to drive you home. Please make sure that someone is available to stay with you overnight. You should be able to return to normal activities the next day. You can eat and drink normally following your procedure.

We advise you not to undertake the following activities for 24 hours following the procedure:

- shopping
- heavy lifting
- gardening
- sexual intercourse
- drinking alcohol
- driving
- decorating
- operating machinery

You should not attempt to return to work on the day of your needle biopsy.

## Following lung needle biopsy

You may experience bruising at the site where the needle was put in your chest. Rarely the biopsy site can bleed after you have left the hospital. If this happens ask someone to get a flannel or small towel and press this gently on the bleeding spot for 10 minutes continuously. If the bleeding continues please contact your GP.

Internal bleeding is rare, but if you feel faint or ill, you should contact your GP or the Accident and Emergency department. There is a possibility that you may cough up a little blood, very rarely surgery is required to stop the bleeding.

If you experience symptoms of any chest pain, bleeding and/or suffer shortness of breath contact your GP as soon as possible or go straight to the nearest Accident and Emergency Department.

Dial 999 if you have no one to take you.

Explain that you have been a patient at Salisbury Hospital and have undergone a CT guided needle biopsy of the lung.

If you experience mild discomfort, painkillers such as paracetamol can be taken if needed.

If you are worried about any of the above please contact the respiratory/radiology department on the numbers at the end of this leaflet or your GP.

## Contact information

### Nurse Specialist:

Mags Bonnett and Julie Ramsden      01722 336262 ext 2497 or bleep 1092

### Chest Specialist Secretaries:

Dr. C. Thompson                      01722 429224

Dr. R. Mehta                            01722 429228

Dr. S. Evans                            01722 429224/8

### Radiologist:

Dr. K. A Johnson/Dr. G. Lloyd-Jones

01722 336262 ext 4196