

Having a sample of your bone taken with a CT scan (CT guided bone biopsy)

Department of Radiology

Information for Patients

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Introduction

If you are an outpatient please read your appointment letter carefully to check which hospital your appointment is at.

This leaflet tells you about the procedure called a CT guided bone biopsy. Please read it carefully as it has important information and instructions.

What is a CT guided bone biopsy?

A bone biopsy is a procedure to get a sample of bone tissue so it can be examined under a microscope. A special needle is passed from the skin into the bone to get a sample of the bone tissue. The sample is sent to someone who specialises in making a diagnosis from tissue samples (pathologist) to be examined.

A CT scan uses X-rays to make detailed images of the inside of your body including the bones. The doctor will use the CT scan to check the biopsy needle goes into the part of your bone that needs to be examined.

Why do I need a CT guided bone biopsy?

Previous scans or X-rays have shown an area of your bone which may be abnormal. The doctor in charge of your care feels that getting a sample of that part of bone will help make the correct diagnosis. This will help them decide what treatment you might need.

The doctor who referred you for the biopsy should have already talked to you about the reason why they feel it is needed and if there are any other options than a biopsy.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals
To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

Asking for your permission (consent)

The doctor who referred you should have talked to you about the reasons for this procedure and any other options.

You have been referred to a hospital doctor or a doctor who specialises in imaging and X-ray treatments (a radiologist) for this procedure. They will confirm that you understand why the procedure is being done, the potential risks and the chances of success.

You will sign a consent form to confirm this. **You should feel that you have had enough explanation before you sign the consent form.**

If after talking to the hospital doctor or radiologist you do not want to have the procedure then you can decide against it at any time.

If the radiologist feels that your condition has changed they will talk to you about whether the procedure is still needed. They may ask for the doctor who wanted you to have the procedure to talk to you and review your condition.

Important information about blood thinners

If you are taking medicine that thins the blood (anticoagulants or antiplatelets) it may need to be stopped or replaced with a different one for a few days.

Please call the radiology department for advice as soon as possible. The phone number to call is on your appointment letter and at the end of this leaflet. You will be asked what blood thinning medicine you are taking, how much you take (the dose), and what you are taking it for.

Common examples of these drugs include aspirin, warfarin, clopidogrel (Plavix®), apixiban (Eliquis), edoxaban (Lixiana), rivaroxaban (Xarelto), ticagrelor (Brilinta), Dalteparin and Heparin.

You may have already been given instructions on blood thinners by the doctor who referred your for this procedure. Please still call the radiology department so we can check this. If you are taking aspirin the referring consultant or radiologist will decide if it needs to be stopped.

Important information

Please tell the X-ray staff when you arrive if:

- you are allergic to rubber (latex), have any other allergies or have asthma.
- you have diabetes.
- there is any chance that you may be pregnant.

Who will be doing my biopsy?

The CT guided biopsy will be done by a doctor who specialises in imaging and X-ray treatments (radiologist). They will be assisted by nurses who will look after you before, during and after the biopsy. The CT scan will be done by radiographers.

How do I get ready for my appointment?

- Do not eat for 4 hours before your biopsy.
- You can have a few sips of clear fluid up to 2 hours before the biopsy.

If you have diabetes it is important to have a normal breakfast. You may need to adjust your medicine. Please contact your normal diabetes care provider for advice.

Sometimes patients may need to be admitted to hospital after the biopsy. Please bring an overnight bag with you in case you need to stay overnight.

What happens before my procedure?

You may have some blood tests done before the biopsy to check that you are not at a higher risk of bleeding, unless they have been done quite recently.

What happens during my procedure?

- The biopsy is done in the Radiology Department in a CT scanner.
- When you arrive for your biopsy you will be asked to put on a hospital gown.
- A needle may be put into a vein in your arm. This is so that you can be given medicine if needed. The radiologist will talk to you about the biopsy and answer your questions.
- You will be asked to lie down on the CT scanning table in the position that the radiologist decides is most suitable. It is important that you stay very still in this position until the procedure is over. If you are uncomfortable please let the doctor know.
- You may be given a sedative to help you feel more relaxed, less anxious and manage the pain better. The sedative will make you feel drowsy but not make you to sleep. The radiologist will talk to you about this if it is needed.
- Everything for the biopsy will be kept clean (sterile). Your skin over the biopsy site will be cleaned with antiseptic. This may feel cold. You will have some of your body covered with sterile sheets.
- The skin and deeper tissues over the bone will be numbed with local anaesthetic. This will sting at first before the skin goes numb.
- You may feel a pushing sensation when the biopsy needle is put in. It should not be painful. If you do feel pain please tell the radiologist. They may give you more local anaesthetic.
- The radiologist will use the CT scan to guide the biopsy needle into the abnormal bone.
- You will need to stay still during the procedure. You may feel some discomfort or pressure when the biopsy sample is taken. The biopsy needle may make a small clicking noise when it takes the sample.

How long will it take?

The average time for this procedure is about 30 to 60 minutes.

What happens after the procedure and when I go home?

After the procedure you will be taken to either the recovery ward within the Radiology Department or a day case unit to recover. Nurses will carry out routine checks, such as taking your pulse and blood pressure. This is to make sure that there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it. You will usually have to stay there for a few hours until you have recovered.

Some patients may have some pain after this procedure. Please let the nurse know if you have pain or if you need any painkillers.

You can start to eat and drink again unless told otherwise by the doctor.

If you are a day case patient and there are no complications, you will be allowed home a few hours after the biopsy. You will not be sent home until we think it is safe to do so.

You must have an adult to take you home (by car or taxi) and stay with you overnight. You must not drive or use public transport.

After the biopsy:

- **For 24 hours** - do not drive
- **For 48 hours** - avoid strenuous exercise or lifting

If you had sedation please follow the advice below:

For 24 hours -

- do not drive a car or ride a bicycle
- do not drink alcohol
- do not operate any machinery or do anything requiring skill or judgement
- do not make important decisions or sign any documents
- do not climb ladders
- do not return to work until after 24 hours or until you are well enough
- do not take any strenuous exercise or heavy lifting

Aftercare of your wound site

Keep your dressing dry for 3 days. Remove your dressing after 3 days.

A small amount bleeding or oozing is expected in the first 24 hours but it usually dries up.

If there is any swelling, bleeding or oozing around the biopsy site or if the skin around the site starts to show inflammation such as swelling or reddish discolouration, contact your GP or the NHS helpline on 111 for advice.

Are there any risks or complications?

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The chance of these happening is different for each person. We will talk to you about your risks before you sign the consent form.

Minor complications:

- **Pain or discomfort** - you might have pain around the biopsy site for the first few hours. You can take your usual simple painkillers (such as paracetamol) for any discomfort from the biopsy.
- **Bruising** - you may have some bruising around the biopsy area.
- **Infection** - the risk of infection of the skin or deeper tissue is low. If the area around the biopsy site becomes hot and red or you feel unwell with 'flu-like' symptoms, this may mean you have an infection. **If this happens see your GP urgently or call the NHS helpline on 111 for advice.**

Major complications:

- **Bleeding** - there is usually only a very small amount of bleeding which lasts a short time. You will need to stay in the department for 2 to 4 hours after the biopsy so the nurse can check for bleeding and make sure you are well enough before you go home.

Any biopsy carries a small risk of bleeding internally. Some medications, bone tumour and other bone conditions can raise the risk of bleeding after a biopsy.

More serious bleeding can occur in some cases. If there is a lot of bleeding you might need a blood transfusion. If the bleeding does not stop you might need an operation or another procedure to stop the bleeding.

If you have any unexpected pain or signs of bleeding anywhere please tell the doctor or nurse. **If this happens when you have gone home contact your GP urgently or call the NHS helpline on 111 for advice.**

- **Injury** - there is a small risk that the biopsy needle may break the bone or injure a blood vessel, a nerve or an organ near the biopsy site. If this happens you may need to be assessed by the orthopaedic team. If the biopsy is from your spine there is a very small risk of damaging the nerve that comes from the spine close to the biopsy site. The doctor doing your biopsy will be using images from the CT scan to position the biopsy needle as accurately and carefully as possible.

Do all biopsies provide a diagnosis?

There is a small risk (about 1 in 10) that the biopsy sample may not have enough of the affected tissue for testing or give a definitive diagnosis. In this case you may need to have the procedure again. If this happens your doctor will talk to you about the options.

How do I get the results?

It usually takes 1 to 2 weeks for the full results to come back from the pathologist. These will be sent to the doctor who referred you for the biopsy.

You may already have an appointment to see a doctor in an outpatient clinic. Otherwise, you may be given an appointment to see a doctor in an outpatient clinic, or you may be phoned with the results.

What are the risks from exposure to radiation in this examination?

The main risk from exposure to X-rays is a higher risk of getting a cancer in the future. This risk is thought to be very small.

We are all exposed to natural background radiation every day of our lives. This comes from the sun, the food we eat, and the ground. Each test that uses X-rays gives a dose on top of this natural background radiation.

The risks of radiation are slightly higher for an unborn child. We must ask patients age 10 to 15 years registered as female and all patients aged 16 to 55 years about their periods and/or possibility of being pregnant.

The benefits of having this test are likely to outweigh any possible risks. The risks of not having the test could be greater. We try to keep your exposure to X-rays as low as possible.

What if I need to talk to someone?

If you have any questions or concerns, or cannot make the appointment please call the radiology department on **0116 258 8765** and select option 7. Monday to Friday 9am to 5pm, but not on bank holidays.



If you have any problems after the procedure please speak to the staff in the discharge lounge.

If you have any problems from your biopsy procedure after you have left hospital, please contact your GP for advice or call the NHS helpline on 111.

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।

Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

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