

Patient information leaflet

CT Guided Biopsy

Radiology department

Introduction

We hope this guide will answer your questions about your CT guided biopsy procedure. Please contact the team if you require further information via the details at the end of this leaflet.

What is a CT guided biopsy?

A CT guided biopsy is a way of taking a small piece of tissue out of your body (biopsy), using a needle through a tiny skin incision, under the guidance of imaging using a CT scanner.

The sample of tissue can then be examined under a microscope by a pathologist (an expert in making diagnoses from tissue samples).

Why do I need a CT guided biopsy?

Other tests you have had have shown an abnormal area of tissue. From these tests, it is not always possible to say what has caused the abnormality.

A CT guided biopsy is a way of taking a tiny piece of tissue for the pathologist to examine and to understand what the abnormality is.

Who will be doing the CT guided biopsy?

The doctors in charge of your case will have discussed the situation with the radiology department and have agreed that a CT guided biopsy will be the best thing to do.

A radiologist (specialist x-ray doctor) will perform the procedure. A radiologist has special expertise in using scanning equipment (CT and ultrasound) and in interpreting the images produced. They will look at these images whilst performing the biopsy.

Preparation for a biopsy

The biopsy will take place in the CT department (part of the radiology department).

Your biopsy can either be undertaken as an inpatient or outpatient.

You may have some blood tests prior to the biopsy to check you do not have an increased risk of bleeding. If you are taking any blood thinning medications, like warfarin, Aspirin, Rivaroxaban, Dabigatran, Apixaban, Edoxaban or Clopidogrel, Ticagrelor you should inform your doctor before the procedure.

You may be asked not to eat for four hours before the procedure, although you may still drink clear fluids such as water.

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Please contact the booking team before your appointment if:

- you are or think you may be pregnant
- If you have had a previous allergic reaction to x-ray dye (contrast agent) or are allergic to iodine.
- If you are a diabetic taking Metformin.
- If you have been advised or told to restrict your fluid intake.
- If you weigh over 30 stone/190 kilograms
- If you have problems standing or need a hoist to transfer
- If you require an interpreter – please inform us as soon as you receive your appointment letter, and we will arrange an interpreter for you.

If you are unsure or have questions about your preparation, contact your doctor or the X-ray department for advice.

Are there any risks?

X-ray radiation: As CT scans involve the use of x-rays, there is a small risk associated with the radiation dose you will receive. The amount of radiation dose associated with a CT is greater than a plain X-Ray, because a CT scans provide a more detailed '3D' picture of what is going on inside the body.

This can significantly aid your diagnosis or treatment.

When the referral is received by the Imaging Department (Radiology) a team of Radiologists and Radiographers carefully check the request to see if the benefit of having the scan, would outweigh the risk of the dose of radiation you will receive.

The radiographer is present throughout your test making sure that the dose is kept as low as reasonably possible and the duration and level of x-rays are kept to a minimum.

Procedure: A CT guided biopsy is a very safe procedure, but as with any medical procedure there are some risks and complications that can arise.

If you are having a liver, kidney or spleen biopsy, then there is a risk of bleeding, although this is generally very slight.

If the bleeding were to continue, then it is possible that you might need a blood transfusion. Very rarely, an operation or another radiological procedure is required to stop the bleeding.

If you are having a lung biopsy performed, it is possible that air can get into the space around the lung (pneumothorax). This generally does not cause any real problems, but if it causes the lung to collapse, the air will need to be drained, either with a needle, or else with a small plastic tube, inserted through the skin.

Unfortunately, some biopsies fail to give an answer. This may be because, despite taking every possible care, the piece of tissue which has been obtained is normal tissue rather than abnormal. Alternatively, although abnormal tissue has been obtained, it may not be enough for the pathologist to make a definite diagnosis. The radiologist doing your biopsy may be able to give you some idea as to the chance of obtaining a satisfactory sample.

Despite these possible complications, CT guided biopsy is normally very safe and is designed to save you from having a bigger procedure.

Patients aged 12 to 55, could you be pregnant? X-rays can be harmful to an unborn baby and should be avoided by patients who are or may be pregnant.

It is recommended that the examination is performed within 10 days of the first day of your menstrual period.

If your appointment is not within this time or if you think you may be pregnant, please contact the X-ray department before your appointment. When you arrive for your test, you will be asked when your last period started. If it is more than 10 days earlier, your appointment may be postponed.

Breastfeeding: On the day of your CT examination, you may be given an injection of iodine contrast medium (Visipaque or Omnipaque). These agents are low risk contrast agents. A very small percentage of the injected contrast enters the breast milk but virtually none is absorbed across the gut of the infant.

No special precautions are required and you can carry on breastfeeding as normal. However, if you have any concerns you may want to express some breast milk prior to your appointment.

This information is from guidance provided by The Royal College of Radiologists.

Allergies

If you have any allergies you must inform your doctor. If you have previously reacted to contrast medium (the dye used for CT imaging) you must tell your doctor about this.

Medication

Please contact the radiology department if you are taking blood thinning medication (anti coagulants) such as Warfarin, Aspirin, Rivaroxaban, Dabigatran, Apixaban, Edoxaban or Clopidogrel, Ticagrelor.

Getting to us

When attending The Princess Alexandra Hospital (Hamstel Road, Harlow, Essex, CM20 1QX), follow the signage to the radiology reception, which is located on the ground floor, green zone.

Please let the receptionists know that you have arrived for your appointment.

When should I arrive?

Please arrive in the radiology department at your given appointment time. A notification through text or letter should have been sent to you to confirm this appointment.

Can someone stay with me in the hospital?

You may have a friend or relative attend with you, but they will be asked to stay in the waiting area while you have your procedure.

Children are not allowed in the waiting area unattended. Our staff are not permitted to supervise children, so please ensure child care arrangements are in place to avoid your tests being rescheduled.

The day of the procedure

A radiology nurse will collect you from reception. You will be shown to a cubicle and asked to undress and put on a gown; You may also be asked to remove jewellery, dentures, glasses, or other metal objects, which may show up on the X-rays.

The radiology nurse will take a brief history and perform some observations.

Before the procedure, the interventional radiologist will explain the procedure and ask you to sign a consent form.

Please feel free to ask any questions that you may have and, remember that even at this stage, you can decide against going ahead with the procedure if you so wish.

The procedure

You will be taken to the CT scanning room. Your identification will be checked by a nurse and radiographer.

You will then be asked to lie on the CT scanner table in the position that the radiologist has decided is most suitable for your procedure.

The radiologist will keep everything as sterile as possible. Your skin will be cleaned with antiseptic and you may have some of your body covered with a sterile sheet.

The radiologist will use the CT scanner to decide on the most suitable point for inserting the biopsy needle. It is important you stay as still as possible during your procedure. Your skin will be then anaesthetised and the biopsy needle inserted into the abnormal tissue.

Most biopsies do not hurt. The local anaesthetic used to anaesthetise the skin will sting to start with, but this will soon pass as the skin and deeper tissues become numb. You may be aware of a pressure sensation as the needle passes into the deeper tissues but this is usually well tolerated.

Your nurse, radiographer and radiologist will be with you the whole time during the procedure and will explain what is happening or what you need to do on the day. If you have any questions or concerns, it is OK to ask.

How long will this take? This will depend on the situation and type of biopsy. The procedure may take over 30 minutes, although you will be in the department for a longer period to ensure no there have been no complications.

Is it uncomfortable? This procedure is not painful but, it can be uncomfortable and unpleasant.

After the procedure

Depending on the type of biopsy you may be asked to stay in bed for a few hours until you have recovered.

A nurse will carry out routine observations, such as taking your pulse and blood pressure, to make sure there are no problems.

If you have any pain following the procedure, we may give you some pain-relief medication.

Depending on the biopsy you may have to stay in hospital overnight. This can be discussed with the doctors looking after you.

Do not expect to get the result of the biopsy before you leave, as it will always take a few days for the pathologist to do all the necessary tests on the biopsy specimen.

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Can I drive after my procedure?

We recommend that you do not drive for twenty-four hours and you ask a friend or relative to drive you home following your procedure.

How soon can I return to work?

We recommend you do not undertake strenuous activity and rest for the remainder of the day.

What do I do if I feel unwell after I have gone home?

If you feel unwell after your procedure, you should seek medical advice from your GP/hospital doctor or through the emergency department and inform them that you have had a biopsy.

Follow-up

You will have a follow-up appointment with your doctor to discuss the results of your biopsy. Sometimes the biopsy is not successful in obtaining the required tissue, or there was not enough normal tissue for the pathologist to make the diagnosis. In this case you may be recalled to have another biopsy.

Contacting the team

If you have any further questions about your procedure or an existing appointment, please contact the radiology nursing department **(Monday to Friday, 8am to 6pm)** on; **01279 82 2527 or 01279 82 3405**

If you have any queries **outside of working hours (after 4pm and on weekends)**, you will be redirected to the main radiology reception.

Please note booking appointments cannot be made during this time.

Your feedback matters

If you would like to give feedback on your care, please contact our patient experience team at paht.pals@nhs.net or **01279 827211**.

Please contact the communications team at paht.communications@nhs.net if you would like this leaflet in another language or format.