

Having a Percutaneous Biopsy

Information for Patients

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Introduction

This leaflet tells you about having a percutaneous biopsy. It explains what is involved and what the possible risks are.

If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you in the Interventional Radiology department.

What is a percutaneous biopsy?

A percutaneous biopsy is a way of taking a tiny sample of tissue from your body, using a special needle passed through the skin. This allows the doctors to look at the sample under a microscope to make a diagnosis and plan your treatment.

Why do I need a percutaneous biopsy?

You may have had an examination or another test, such as an ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI) scan that has identified an area of abnormal tissue inside your body. From the scan, it is not always possible to say exactly what the abnormality is due to, and the simplest way of finding out is to take a tiny sample of the tissue and look at it under a microscope.

Are there any risks?

Percutaneous biopsy is a 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 actually been obtained is normal tissue rather than abnormal. Alternatively although abnormal tissue has been obtained, it may not be enough for the pathologist (an expert in making diagnoses from tissue samples) 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, percutaneous biopsy is normally very safe and is designed to save you from having a more invasive procedure, such as surgery.

What do I need to do to prepare for the procedure?

You may need to have a blood test before the procedure to check that you are not at increased risk of bleeding. Your doctor or clinical nurse specialist will tell you about this and how to arrange it.

If you are taking Warfarin, Clopidogrel, aspirin or other blood thinning medications please inform the Radiology department at least one week before the procedure, as these may need to be stopped for a number of days before the examination. Please continue to take all your other medications as usual.

You may already be an inpatient or, may need to be admitted into hospital on the day of your procedure. Many biopsies are performed as outpatients or do not require an overnight hospital stay. On admission you will be informed of the approximate time of your procedure. However, this may change due to unforeseen circumstances.

You may be asked not to eat for 4 hours before the procedure, although you can usually still drink clear fluids such as water. If you are a diabetic your blood sugar levels will need to be monitored to ensure they remain within stable limits.

What happens before the procedure?

The procedure will take place in the Radiology department, either in the ultrasound room, CT scanner or a special X-ray room. You will be welcomed by the radiology staff:

- The Radiologist is a doctor specially trained to interpret X-rays and scans and to perform image-guided procedures.
- Radiographers are specially trained health professionals who move and control the radiographic equipment during the procedure.
- Radiology Nurses work with the radiologists and care for the patient during interventional procedures.
- Radiology Department Assistants (RDAs) are healthcare professionals trained to assist radiographers and radiologists in preparing and caring for patients undergoing scans and image-guided procedures.

A nurse or RDA will check your details. Please let them know if you have asthma, or are allergic to any medications, skin-cleaning preparations, iodine or the contrast medium (special dye used to highlight blood vessels on X-rays) used for the procedure.

You may be asked to change into a hospital gown and remove any jewellery from the area to be examined.

The radiologist will explain the procedure answering any questions you or your family may have. When all your questions have been answered you will be asked to sign a consent form for the procedure.

What happens during the procedure?

You will be taken into the ultrasound, CT or X-ray room and helped onto the scanner or X-ray table. The position will depend on where the abnormal tissue is in your body and which type of imaging is being used to guide the procedure. A scan or X-ray will first be performed to mark the best site for the inserting the biopsy needle.

If intravenous contrast, sedation or painkillers are required for the procedure, a cannula (needle) will be inserted into a vein in your hand/arm.

The skin over the region to be biopsied will be cleaned with antiseptic fluid and covered with a sterile drape (towel). The radiologist may give you an injection of local anaesthetic to numb the area. This may cause some stinging, but it will only last a short time. The biopsy needle will be passed through the skin into the abnormal tissue under image guidance. You may be asked to hold your breath and keep still while the biopsies are taken.

It may be necessary to perform 2-3 passes of the biopsy needle in order to obtain a sufficient tissue sample. You may feel some minor discomfort as the biopsy is taken.

Every patient is different, and it is not always easy to predict how long the biopsy will take; however, expect to be in the radiology department for about 30 – 60 minutes.

What happens when the procedure is finished?

You will be taken back to your ward, where you may need to rest in bed for 1- 6 hours, depending on the part of the body that was biopsied. You will have your pulse, blood pressure and if necessary your temperature taken to ensure there have been no complications.

You can eat and drink normally unless instructed otherwise by your doctor. Assuming you are feeling well, you will normally be discharged the same day.

How will I get my results?

The biopsy specimens will be sent for examination. Once the results are available, your doctors will discuss these with you.

Any questions?

We will do our best to make your visit as comfortable and stress free as possible. If you have any questions or suggestions for us, please contact the Interventional Radiology department on 01225 824375.

More information

For general information about Radiology departments, visit The Royal College of Radiologists' website: <https://www.rcr.ac.uk/public-and-media/what-expect-when>

For information about the effects of x-rays read the National Radiological Protection Board (NRPB) publication: 'X-rays how safe are they?' on the website: http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947388410

How do I make a comment about my procedure?

If you have any concerns or suggestions following your procedure, please contact the [Patient Advice and Liaison Service \(PALS\)](#),

Royal United Hospital Bath NHS Trust, Combe Park, Bath BA1 3NG.

Email: ruh-tr.PatientAdviceandLiaisonService@nhs.net

Tel: 01225 821655 or 01225 826319