

CT Guided Spinal Biopsy

Information for patients



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The aim of this booklet is to:

- Answer your questions about CT guided spinal biopsy
- Explain why you need the test
- Describe what is involved
- Inform you of the common risks and complications.

It is not meant to replace discussions between you and your doctor. It may be helpful for your partner, family or carer to read this as well.

Why am I having a biopsy?

Your doctor would like a tissue sample from an abnormality surrounding or within your spine.

What is a CT?

CT stands for Computerised Tomography and is a special scan using x-rays. You may have already had a CT scan of your body

Do I come into hospital before my biopsy?

Yes, you will be told where to go before your biopsy. Usually, you will be admitted to a ward. You will be taken from the unit or ward to have the biopsy performed in the imaging department. You do not need to fast beforehand.

Will I need tests before my biopsy?

We need blood samples to check your blood count and how well your blood clots. These should be done before you come into hospital or checked once admitted to the ward.

Important: If you have not had a blood test done within the last 3 months, please contact your GP practice to arrange an urgent appointment to have full blood count, coagulation screen, and blood coagulation tests.

What preparations do I need to make?

Take any medication as prescribed (exceptions stated below) and bring your medicines with you. Please bring an overnight bag in case you have to stay overnight.

Important information: If you are on medication to thin your blood, your doctor should have advised you to stop this for a period of time before the biopsy. The usual advice is detailed below but this may vary in individual cases. If you are unsure or have not been told what to do- then please contact your doctor through their secretary.

Warfarin and Aspirin should be stopped for at least 5 days.

Clopidogrel (Plavix) should be stopped for at least 7 days.

Apixaban should be stopped for at least for at least 2 days.

These tablets should be restarted following the test.

What will happen when I arrive at the hospital?

You will be asked to report to a day bed area or ward for an agreed time. A nurse will take some details from you and a cannula will be inserted into a vein in your arm or hand- this is a thin tube which can be used to give you medicines. If you haven't had the required blood tests, these will be done at this time.

What will happen in the CT department?

A nurse or clinical assistant will record your pulse and blood pressure.

The radiologist will explain the procedure, the risks and give you a chance to ask questions. You will then be asked to sign a consent form.

We will do an initial CT scan and mark a spot on your skin to guide the biopsy.

The skin is cleaned and local anaesthetic is injected into the skin which may sting as it starts to work. This numbs the skin but does not put you to sleep. You might still feel some pushing and tenderness as we put the needle into your back. If you feel pain, let the doctor know and more anaesthetic will be given.

It is important to lie still to avoid moving the needle which may cause complications.

Several scans may be needed to help guide the needle and sometimes several attempts to adjust the needle may be required. The doctor will usually take a few tissue samples.

To guide us during the procedure we use x-rays, the benefits of using x-ray guidance for the procedure are thought to outweigh the very low risk from the x-rays themselves. Every day we are exposed to some natural background radiation from the air we breathe, the food we eat, the environment we live in, and even from flying on a plane. Each medical x-ray gives us a small additional dose on top of this natural background radiation. The procedure you will be having is equivalent to less than 1 year of natural background radiation. It is important to say that the amount of x-rays used will carry a low risk.

What happens after the biopsy?

You will be taken back to the ward where staff will monitor your breathing, pulse and blood pressure. For some patients, they will also check the strength and sensation in your legs. If you develop some pain at the biopsy site, you may be given painkillers.

You should not drive yourself home on the day of the biopsy.

When can I go home?

This is decided on an individual basis. Most patients are well enough to be allowed to go home on the day of the procedure, as long as they have someone at home with them. However, some patients may be kept in overnight.

Can anything go wrong?

Yes, although a biopsy is a relatively safe procedure, there are some risks and complications that can occur in less than 1 out of every 3 patients. Although most of these are minor, sometimes more serious complications can occur. Very rarely, a patient may develop potentially life threatening complications.

Despite these risks, the biopsy is essential to confirm or exclude serious conditions. Your doctor will have assessed the benefit of getting tissue against the risks, and it may save you having a bigger more risky procedure.

This will all be covered during a discussion with the doctor before the procedure starting.

Risks of the procedure (from local data):

- **Epidural haematoma** (spinal cord/cauda equina compression) or **Paravertebral haematoma** (posterior mediastinal/retroperitoneal) – where blood accumulates within the body
- **Insufficient sample** - We may only get a small sample, no sample or one that is unhelpful in the diagnosis. Even with a good sample the pathologist may not be able to work out the cause of the bone/soft tissue abnormality – this happens in 1 in every 5 biopsies. In these cases the biopsy may need repeated or another test may be needed. A repeat CT guided biopsy occurs in 1 in every 50 patients.

Other potential and very rare risks

- Bleeding - minor bleeding around the biopsy site is common and occurs in everyone to some degree and is usually minor.
- Thoracic Biopsy- possible collapse of the lung (pneumothorax): It is usually small and won't need treatment. If it is large it may need to be treated by putting a drain/tube into the chest.
- Spinal cord infarction – this is an extremely rare complication when the blood supply to the spinal cord is interrupted. This could cause a stroke of the spinal cord, which could affect power or sensation in the lower limbs, or bladder and bowel function could be affected.
- Tumour cells spreading along the track of the biopsy. This happens in less than 1 in 800 patients
- Infection at biopsy site.

How will I learn about my test results?

Results will be sent to the doctor who asked for the biopsy. You should expect to hear soon after the procedure and you may already have an appointment. Sometimes the doctor may contact you by phone. Results can sometimes take up to two or three weeks depending on the tests being performed in the laboratories.

Should I take any special precautions when I go home?

You should not drive on the day of your procedure. You may eat and drink as normal after leaving.

Mild discomfort at the biopsy site should settle within 48 hours. Painkillers such as paracetamol may be helpful. Avoid straining or lifting for 24 hours. Do not lift heavy objects for four days. If your usual activities involve lifting, ask your doctor what is safe to do.

If any of these problems arise:

- Fever
- Worsening pain

Please contact your GP or go to your local Accident and Emergency department.

