

**Patient
Information**

Renal biopsy

Introduction

Your doctor has referred you for a renal (kidney) biopsy. This leaflet aims to answer some of the commonly asked questions about having a kidney biopsy. It also contains information about the benefits, risks and alternatives to the procedure, as well as what you can expect when you come to hospital.

If you have any further questions, please speak to the doctor or nurse caring for you.

Why do I need a kidney biopsy?

The biopsy may help your consultant to find out, in more detail, exactly what is wrong with your kidneys.

This will allow us:

- to tell you what the problem is.
- to advise you about any special treatment that may be of benefit to you.
- to plan your treatment.

What is a kidney biopsy?

A kidney or renal biopsy is a minor but important procedure. A kidney biopsy involves taking a few small pieces of kidney tissue about the size of a grain of uncooked rice, either from your own kidney (native kidney biopsy) or a transplanted kidney. This tissue is then looked at under a microscope, often after the tissue has been stained with special dyes which will show up areas of interest.

Is there an alternative test?

There is no other test that will provide us with the same information.

Reference No.

GHPI0098_11_23

Department

Renal

Review due

November 2026

**Patient
Information**

Do I need to do anything to prepare for the biopsy?

You will be asked to attend Gloucestershire Royal Hospital for a health check before your procedure. This may include a blood pressure check, up to date blood tests including clotting screen, group and save (this is required should you need a blood transfusion) and a medication review by the Renal Team.

If your blood pressure is more than 160/90 you may be offered blood pressure medication to help lower this figure, with the procedure postponed and rebooked at a later date.

You should bring an overnight bag and your medication with you. You can eat and drink normally before and after the biopsy. We advise that you do not drive yourself to the hospital as you will not be able to drive home following the procedure.

If you take aspirin, you should stop taking it 1 week before the biopsy. If you are taking other medication that thins your blood (such as Warfarin, Rivaroxaban, Clopidogrel, Prasugrel, Asasantin, Apixaban or Dabigitran) please make sure your renal doctor knows and has told you when to stop taking them and when to restart them after the procedure.

Can you also let your doctor know if you have any allergies to medicines, especially to antibiotics, local anaesthetics or solutions used to clean the skin before an operation.

The biopsy procedure will be performed on Ward 7B. After the procedure you will be transferred to a recovery area within Gloucestershire Royal Hospital for a minimum of 6 hours. Sometimes it is necessary for patients to stay in hospital overnight.

Giving your consent (permission)

We want to involve you in all decisions about your care and treatment. You will be asked to sign a consent form that says you have agreed to have the biopsy and that you understand the benefits and risks of the procedure. If there is anything you do not understand or you need more time to think about, please tell the staff caring for you.

Patient Information

It is your decision; you can change your mind at any time, even if you have signed the consent form. Please let the staff know straightaway if you change your mind.

Your wishes will be respected at all times. If you would like to read our consent policy, please let a member of staff know.

Who will be doing the biopsy?

A kidney specialist (consultant) or a trainee kidney specialist (specialist registrar) will be responsible for carrying out the procedure. The doctor performing the biopsy may be different to the doctor who recommended the procedure to you but they will be happy to answer your questions.

What happens during the kidney biopsy?

Most biopsies take place on the Renal Ward 7B at Gloucestershire Royal Hospital in a specialist procedures room. Blood tests will have been taken when you attended the clinic to discuss the biopsy. Sometimes the blood test may need to be repeated on the day of the biopsy.

A doctor will examine you before the biopsy to make sure that you are fit for the procedure. If you are having a biopsy of one of your own kidneys, you will be asked to lie on your front. You will remain fully awake throughout the procedure.

An ultrasound machine will be used to locate your kidneys and decide on where to take the tissue samples from. This is usually the lower part of the left kidney.

If you are having a transplant kidney biopsy, the sample will be taken from the upper part of kidney.

Samples are only taken from one kidney.

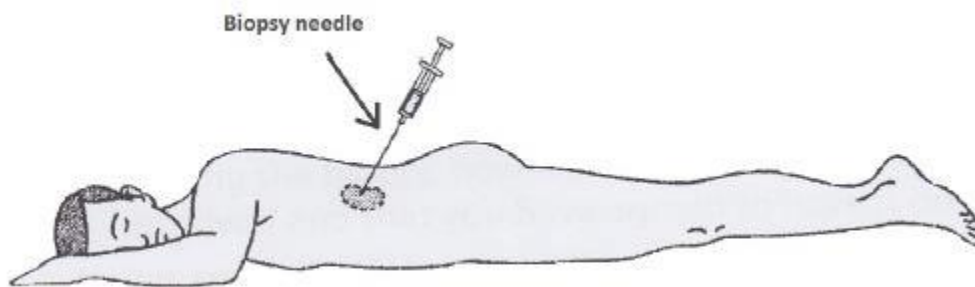
The skin above the kidney will be cleaned using an antiseptic solution. Local anaesthetic will be injected into the skin above the kidney using a fine needle, and then deeper into the tissue down to the kidney. This may sting, but the area will then become numb. A longer needle is then inserted through the skin into the outer part of the kidney. A small piece of the kidney tissue will be taken through this needle.

Patient Information

Just before the piece of tissue is taken, you might be asked to take some deep breaths and then to hold your breath for a few seconds. This is because your kidneys move when you breathe. As the biopsy is being taken, you will hear a click.

The sample will then be looked at under a microscope to see how much kidney tissue has been taken. A minimum of 2 pieces are needed to get the information required. This means that the needle is usually reinserted a number of times. Once the biopsy has been completed, a small dressing will be applied and you will be asked to turn onto your back.

If you are having a biopsy of a transplanted kidney, the procedure is the same, except that you will be asked to lie on your back.



How long does the kidney biopsy take?

The procedure takes about 30 minutes.

What happens after the procedure?

You will need to lie flat on your back for a minimum of 2 hours after the procedure and stay in bed for a total of 6 hours. This will minimise the risk of bleeding.

During this time, your pulse and blood pressure will be checked regularly. The ward staff will also measure and test your urine and make sure that you are drinking plenty of fluids to flush the kidneys. As the local anaesthetic wears off, you may notice some discomfort in your back. Please ask for pain relief to help with this. During this time, you should be able to eat and drink as you are able.

If your blood pressure and pulse remain stable and you have passed clear urine, you will be able to go home 6 hours after the biopsy.

**Patient
Information**

What are the risks?

The amount of tissue removed is very small and will not affect your kidney function.

The main risk of the procedure is bleeding. This is usually minor, and most bleeding will stop. If you are passing a lot of blood in your urine, you may need a catheter to stop blood clots forming in your bladder. A blood transfusion might be needed in up to 1 in every 100 patients.

Rarely, patients (1 in every 350) will need another procedure, usually a specialist X-ray called an angiogram, where a drug will be injected to stop any bleeding.

Very rarely, less than 1 in every 3,000 patients, removal of the kidney may be necessary if we are unable to stem internal bleeding from the kidney.

These risks vary from patient to patient and depend on a number of different factors. Your individual risks will be discussed with you by your renal doctor.

What happens after I leave hospital?

Please arrange for a friend or relative to travel home with you, ideally this should be in a car and not on public transport. You should also have someone stay with you overnight.

- You should not drive for 7 days following the procedure.
- You can have a bath or shower once you are at home.
- You should rest for the remainder of the day.
- Take pain relief such as paracetamol if you feel any discomfort. Please follow the information provided in the packet.
- Avoid heavy lifting, strenuous exercise and contact sports for at least 7 days.
- The small dressing on your back can be removed after 48 hours.
- The discomfort from the biopsy site should be a dull ache and will improve over the next 24 to 48 hours.
- If this ache becomes sharp or suddenly worsens then contact Ward 7B straightaway. The number is at the end of this leaflet.

**Patient
Information**

Follow-up appointment

You should have an out-patient appointment in the Renal Clinic either at Gloucestershire Royal Hospital, Cheltenham General Hospital or one of the community hospitals. This will be to discuss the biopsy results. The follow up appointment should be within 4 to 6 weeks. Please contact your consultants' secretary if you have not received an appointment letter after this time. You may be contacted earlier once the biopsy results become available.

Contact information

Please contact the Renal Ward 7B urgently, if you:

- have worsening pain in your back (in the kidney area).
- notice blood or blood clots in your urine or are unable to pass urine.
- develop a temperature over 37.0C
- feel faint or dizzy.

If you feel extremely unwell, please contact your GP or NHS 111 for advice.

Renal Ward 7B

Gloucestershire Royal Hospital
Tel: 0300 422 6768

Members of the ward-based team are available 24 hours a day.

Further information

The National Kidney Federation

Website: www.kidney.org.uk

Content reviewed: November 2023

Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.



Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85



<https://aqua.nhs.uk/resources/shared-decision-making-case-studies/>