



Having a transplant kidney biopsy: your questions answered

Information for patients from the Renal Transplant Services Team

This leaflet is designed to answer any questions you may have about your **transplant kidney biopsy**.

What is a biopsy?

A biopsy is the removal of a small piece of tissue from an organ of the body (in this case your transplant kidney) using a specially designed needle.

Why do I need a biopsy?

- Your kidney is consistently not working at a satisfactory level; or
- Your kidney is suddenly not working as well as it had been or should be.

Your doctor knows how well your kidney is working by the creatinine level measured in your blood, and sometimes the protein level measured in your urine. Scans and x-rays can help to tell us what is happening, but the only certain way to know what is happening to your transplant kidney is to have the biopsy piece of tissue examined under a microscope in the laboratory. This will help your doctor make the correct diagnosis and treatment; which may include treatment for rejection or just medication changes.

What treatment will I need?

If your biopsy result shows that you need treatment, this may include a steroid injection into a vein. The injection takes one hour to give, and you will need one each day for three days. It may be possible for you to go home between these treatments.

Other less used treatments would be explained to you at the time. Your doctor may also change your cyclosporine / tacrolimus / sirolimus medication in response to your biopsy results, if your results show that a different medication would suit your kidney better.

Where is the biopsy done?

Usually we do biopsies in our clean procedure room next to Marlowe Ward at Kent and Canterbury Hospital. Sometimes your biopsy may need to be done in the X-ray Department.

Will I have to stay in hospital?

You will be admitted to Marlowe Ward at Kent and Canterbury Hospital early on the day of your biopsy.

- If it is a **non-urgent biopsy** you will usually be able to go home the same day, usually eight hours after your procedure.
- In **urgent cases** it may still be possible for you to go home the same day. However be prepared to stay in hospital until either your biopsy results are available, or until you have completed any necessary treatment.

For reasons of safety, some people will need to stay in hospital for one night after their biopsy. This includes those with low kidney function (eGFR <20 ml / min) and in certain other situations. You will be told by your usual doctor or other member of the transplant team in advance if you need to stay in hospital overnight.

Do I need to bring anything with me?

Please bring **a list of your medications and any medications** you may need on the day of your biopsy. You may wish to bring something to read. If you need to stay overnight, please make sure that you bring the necessary items with you to your appointment.

What if I am taking warfarin, aspirin, or other blood-thinning medications?

If your biopsy is a planned routine procedure you will be asked to stop your aspirin or clopidogrel five days before your procedure. If you are having an urgent biopsy and have not stopped your aspirin or clopidogrel your procedure can still go ahead, as it is more important that diagnosis of rejection can be caught early. If you are taking blood-thinning medications (anticoagulants) you must tell the nurse / doctor and we will advise appropriately.

What happens before I have my biopsy?

- Blood samples may be taken in the clinic or you may be asked to have them taken at your doctor's surgery. These are to make sure that it is safe to do the biopsy.
- Only eat a light breakfast on the morning of your biopsy. If you have diabetes, please tell the nurse looking after you on the ward. When you have been admitted your blood pressure will be checked, an intravenous cannula will be inserted into one of your veins, and further blood samples may be taken.
- One of the kidney doctors will make sure that you understand what the biopsy involves and explain the risks to you. You will be asked to sign a consent form agreeing to have the biopsy. Please remember that you can withdraw your consent for treatment at any time.
- You will be asked to put on a theatre gown and to go to the toilet to empty your bladder before your procedure.

What will happen during my biopsy?

The biopsy is performed in the clean procedures room next to Marlowe Ward, and you will remain awake throughout the procedure.

- You will be asked to lie on your back.
- Your doctor will find the exact location and position of your transplant kidney with an ultrasound scan.
- An antiseptic solution is then used to clean your skin, and sterile towels are draped around the cleansed area.
- An injection of local anaesthetic is given to numb your skin and the area around your transplant kidney.
- You will be asked to keep still while the biopsy needle is introduced through your skin into your transplant kidney. Usually two small samples will be taken. This part of the procedure is very quick, but it may need to be repeated to get enough of a sample for analysis.

Will the biopsy hurt?

You may feel a slight stinging from the injection of local anaesthetic and some pressure from the biopsy needle, but otherwise the procedure should not be painful. If you do feel anything more than a little discomfort, please tell your doctor straightaway.

What are the risks of a kidney biopsy?

Any medical or surgical procedure carries risks. The main risk linked with a kidney biopsy is bleeding into the urine or around the kidney. Roughly one in 10 people will see blood in their urine after their biopsy, but this usually clears quickly.

Occasionally, and only in the event of very heavy bleeding into the urine, we may need to place a urinary catheter (a small tube into the bladder through the urethra) to allow bladder irrigation and prevent large blood clots from forming in the urine.

Our local data (from over 300 transplant biopsies carried out by the Trust over a five year period) tells us that the risks of other serious complications are:

- Heavy bleeding needing blood transfusion happens to approximately one in 300 patients.
- Intervention (usually undertaken by an interventional radiologist) to stop ongoing bleeding, is needed for approximately one in 300 patients.

Although data published in the medical literature tells us that death is a very rare but recognized complication of a kidney biopsy, we did not find any deaths linked to the procedure in our local data.

What happens immediately after my biopsy?

- A small dressing will be applied to the skin biopsy site.
- You will be asked to lie as flat as possible on your back in bed for four hours, and then sat up for the next two hours before moving around for two hours before your discharge.

- Your blood pressure, pulse, and biopsy site will be monitored frequently.
- If you become aware of bleeding or pain you should tell your nurse.

You will be asked for a sample of urine, so we can check for any signs of blood. It is important that you follow these requirements as this will reduce risk of and / or alert your doctors and nurses to bleeding complications.

What happens in the days following my biopsy?

Once home you should rest. It is quite normal to have some discomfort around your biopsy site during the first week. You may need to take some over-the-counter pain relief (such as paracetamol) for this.

We advise you not to do anything too physically strenuous (for example contact sports such as horse riding, football, rugby, and boxing) or carry out any heavy lifting for at least two weeks after your procedure, as this could dislodge the blood clot around the biopsy site and lead to bleeding.

You should be able to return to normal light activity four days after your biopsy.

If you have stopped taking your anticoagulants you should discuss with your kidney doctor when to restart them. If you feel dizzy, can see blood in your urine, or have severe back pain after returning home, please contact **Marlowe Day Case Area on 01227 783100 or the transplant nurses on 01227 866443** for advice.

If you have any further questions about your biopsy, please contact the transplant nurses on 01227 866443.

When can I drive again?

You should arrange for somebody to collect you from the hospital, as we strongly advise you not to drive yourself home after your procedure, nor to travel home by public transport. If you do not have a friend or relative who can drive you home, please tell the nurse looking after you and we will make necessary arrangements with Patient Transport Services.

You should not start driving again until you feel comfortable. In particular, you need to be able to perform an emergency stop safely.

When do I get my results?

In urgent cases your biopsy report is made available to the doctor in 12 to 48 hours. In non-urgent cases you will usually be given your results at your next transplant clinic appointment.

This leaflet has been produced with and for patients.

Please let us know:

- If you have any accessibility needs; this includes needing a hearing loop or wanting someone to come with you to your appointment.
- If you need an interpreter.
- If you need this information in another format (such as Braille, audio, large print or Easy Read).

You can let us know this by:

- Visiting the Trust web site (<https://www.ekhuft.nhs.uk/ais>).
- Calling the number at the top of your appointment letter.
- Adding this information to the Patient Portal (<https://pp.ekhuft.nhs.uk/login>).
- Telling a member of staff at your next appointment.

Any complaints, comments, concerns or compliments, please speak to a member of your healthcare team. Or contact the Patient Advice and Liaison Service on 01227 783145 or email (ekh-tr.pals@nhs.net).

Patients should not bring large sums of money or valuables into hospital. Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property has been handed into Trust staff for safe-keeping.

Further patient information leaflets are available via the East Kent Hospitals' web site (<https://www.ekhuft.nhs.uk/patient-information>).

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