

## Renal Unit

### KIDNEY BIOPSY PATIENT INFORMATION SHEET

#### What is a kidney biopsy and why do I need it?

A kidney biopsy (sometimes called a renal biopsy) is a procedure during which a small sample of kidney tissue is removed for examination under a microscope. Kidney biopsies are performed for several reasons:

- To identify a specific disease process and to determine whether it may respond to treatment
- To assess if the kidney has been damaged
- To find out why a kidney transplant may not be functioning well

The test results will help the doctor decide on what treatment may be necessary to preserve your kidney function and to plan your future care or treatment needs.

#### What preparations are necessary before my kidney biopsy?

For one week before the biopsy, you should avoid any medications which may affect how your blood clots. This includes aspirin, clopidogrel (Plavix®), rivaroxaban, apixaban, dabigatran, heparin, warfarin and phenindione and also some over-the-counter pain killers such as ibuprofen (Nurofen®), naproxen, etc. If you are taking any of these medications, you must discuss this with your hospital kidney doctor at least a week before the biopsy, as these drugs may need to be stopped temporarily. The doctor will give you any other specific instructions when scheduling the date for the biopsy.

When you arrive for your biopsy, a urine test will be performed to make sure your kidney is free from infection. Your blood pressure will also be measured, and blood tests may be sent. If your blood pressure is too high or your blood tests are abnormal, this may delay the biopsy.

Usually, you will also have had an ultrasound scan of the kidneys and some blood taken for tests prior to your arrival. If not, this may be done on the same day before the biopsy. If this is the case, the doctors will need to wait for the results of the tests before they do the biopsy and so the biopsy will not be done straight away.

#### What are the risks of a kidney biopsy?

In all medical and surgical procedures, certain complications may occur in spite of efforts taken to prevent them.

Significant pain is unusual, but a minority of patients require simple painkillers such as paracetamol after the biopsy.

The greatest risk of a kidney biopsy is bleeding. One in 20 people will pass blood-stained urine after the procedure. In most cases, this will resolve within 24 hours. If significant bleeding occurs, a blood transfusion may be necessary (1 in 100 people).

Very uncommonly, the bleeding does not settle by itself. In this case, a procedure in the X-ray department, or, rarely, surgery will be necessary to stop the bleeding. In very rare cases a part of the kidney may have to be removed to stop the bleeding.

Although deaths have occurred due to complications following a kidney biopsy, this is extremely rare.

## **Consent**

You will need to sign a consent form before the procedure to say that you understand what the kidney biopsy involves and that you agree to have the procedure. The doctor will discuss the risks of the procedure with you at that time. If you have any other concerns or queries relating to the procedure the doctor will be happy to discuss these with you. If you wish, it may be helpful to have somebody with you when you speak to the doctor.

## **What does a kidney biopsy involve?**

Kidney biopsies are usually done when you are fully awake. The biopsy process usually takes between 30 and 60 minutes. The kidneys usually lie just under the ribcage towards the sides of your back. Therefore, for the procedure you will be asked to lie on your front, with a pillow under your abdomen. However, if the biopsy is being done on a transplanted kidney, you will be lying on your back.

The kidney is located using an ultrasound machine and the entry site for the biopsy needle is marked. This site is then cleaned with antiseptic and local anaesthetic injected into the skin and down to the kidney. This may sting at first, but then the area will go numb. A small nick is then made in the skin, and, under guidance of the ultrasound machine, the biopsy needle is inserted. You should not feel any pain, but you may feel a pressure sensation as the needle passes toward the kidney. Just before the needle is passed into the kidney, you will be asked to take a deep breath and hold it for 5 to 10 seconds. At least two needle "passes" may be necessary to obtain enough tissue for diagnosis.

Once enough kidney tissue is obtained, a plaster is placed over the biopsy puncture site, and you will be asked to roll over to lie flat on your back.

## **What happens after the biopsy?**

In order to minimise the risk of bleeding after the procedure, you need to stay in bed lying on your back for six hours. For four of these hours, you will be completely flat, and for the remaining two hours, the head of your bed may be raised. Your blood pressure and pulse are checked frequently to look for any signs of bleeding.

You may eat and drink after the biopsy. If you need to use the toilet during this time, you will be provided with a bed pan.

If your blood pressure and pulse are stable, and you feel well enough, you will usually be allowed to go home after this observation period. It is sensible, however, to bring sufficient personal items for an overnight stay in hospital: this may be necessary if the biopsy is performed late in the day or in the uncommon event of a complication occurring.

You should avoid driving, heavy lifting and strenuous exercise for five days after the biopsy.

### **Is there anything else I should know?**

We usually recommend that you do not restart any medication that may affect how your blood clots for one week after the procedure, but your doctor will discuss this with you at the time.

If you are constipated, it is important that you do not strain excessively to have a bowel movement. If this is the case, you may need to take a stool softener or laxative.

Seek urgent medical advice if any of the following occur:

- You develop blood-stained urine
- You are unable to pass urine
- You have worsening pain at the biopsy site, in your back or abdomen
- You develop a fever
- You feel faint

### **How long will it take to get the results?**

We will usually have a preliminary result from the biopsy within a few days. You will be given a clinic appointment at the hospital a few weeks after the biopsy to discuss these results with your doctor. If, after we receive the results, we need to make changes to your treatment sooner than this, we will contact you.

### **What other sources of information are available?**

Further information relating to renal disease, kidney biopsies, etc. can be obtained through the following sources:

- The UK National Kidney Federation website: [www.kidney.org.uk](http://www.kidney.org.uk)
- The Renal Association website: [www.renal.org](http://www.renal.org)