

# Renal biopsy



## **What is a renal (kidney) biopsy?**

A renal biopsy is a procedure by which a small piece of tissue is removed from one kidney so that it can be examined under a microscope.

## **Why do I need a renal biopsy?**

Some kidney problems can be diagnosed from blood tests, X-rays or scans, but this is not always the case. Many conditions, and in particular inflammation of the kidneys (called nephritis), require a biopsy to make a diagnosis and decide on further treatment. By actually looking at a piece of the kidney under the microscope the pathologist can try to determine:

- what sort of inflammation there is
- what has caused the inflammation
- if the inflammation has caused any damage to the kidney
- if the inflammation is likely to cause any damage in the future
- if any treatment is needed.

## **What will happen?**

Before the biopsy you will have been seen in the clinic and have had a full medical examination. You will then be given an appointment to come to the hospital for the biopsy.

Please inform the doctor if you:

- have any allergies
- have an artificial heart valve or are known to have a damaged heart valve
- are taking any medications that thin your blood eg aspirin, warfarin or any anti-inflammatories eg ibuprofen
- think you may have cystitis or a kidney infection
- have a personal history or a family history of prolonged bleeding.

## **How do I prepare for it?**

If you are on aspirin please stop taking this one week before your biopsy. If you are on any other medications that thin the blood such as warfarin, heparin, clopidogrel, dabigatran, apixaban or rivaroxaban this will need to be discussed

with your doctor and you will need to stop this 7 to 10 days before your biopsy. Non-steroidal anti-inflammatory drugs (eg ibuprofen) also thin the blood, so please stop these 7 days before your biopsy.

You may eat and drink until around two hours before your biopsy. Unless blood tests have been taken in the clinic within the previous few days, you will have a blood sample taken to check that your blood clots normally and also to test for your blood group.

## **What does the biopsy involve?**

You will be asked to undress and put on a hospital gown. The biopsy is performed in the X-ray department by a consultant in radiology. You will be asked to lie face down on a couch and an ultrasound scanner is used to show exactly where your kidneys are. Ultrasound scanners are the ones used to check on babies during pregnancy, and uses cold jelly on your back.

The biopsy is usually taken from the left kidney. There is no need to take a biopsy from both kidneys as nephritis usually affects both kidneys equally and whatever is found in one kidney will be the same in the other.

Local anaesthetic is used to numb the skin over your kidney. Once this has taken effect, a needle is inserted through the skin into your kidney. The needle is hollow so that when it is withdrawn, a small piece of kidney stays inside the needle. This piece of kidney is then sent to the laboratory for examination. Usually two or sometimes three samples are taken. The procedure usually takes around 15 to 20 minutes.

## **What happens afterwards?**

As the kidney will bleed following your biopsy, you will be asked to lie in bed for six hours, and then you will be encouraged to walk around the ward over the next two hours. This helps keep the bleeding and therefore the bruising around the kidney to a minimum. During this eight hours your blood pressure and pulse are checked regularly. After eight hours some patients will be allowed home, others will need to stay overnight for further observation.

Patients who are going home on the same day as the biopsy will need to have another adult with them at home. All patients should rest the day following the

biopsy. Do not undertake any vigorous physical exercise for at least one week. Do not restart any medication that thins the blood (such as aspirin, warfarin, ibuprofen) for seven days after your biopsy. If unsure please discuss with your renal doctor.

### **Will I have any pain or discomfort?**

Although the local anaesthetic will numb your skin it is common to have some discomfort following your biopsy. This is due to the bleeding/bruising around your kidney. You will be given painkillers if required (not anti-inflammatory drugs). The discomfort, if it does occur, should settle within 48 to 72 hours. If you have severe pain or are worried, contact your GP or us.

### **Are there any risks or complications?**

Renal biopsy is usually a safe procedure and the risks are small.

**Bleeding** – every biopsy causes some bleeding around the kidney and sometimes into the urine. Tell the doctor or nurse if you pass blood in your urine. Around 10% (1 in 10 patients) have bleeding into their urine and this usually settles quickly. There is around a 1-2% (1-2 in 100 patients) risk of more serious bleeding requiring a blood transfusion and there is a smaller risk of needing surgical intervention.

**Infection** – the biopsy is performed under sterile conditions. However it is still possible for bacteria from the skin or from the urine to cause an infection. This is rare. You should inform us if you develop fever or chills.

### **When will I get my results?**

The biopsy takes several days to process in the laboratory. The results will therefore usually be discussed at your next outpatient appointment.

### **What should I look out for?**

It is unusual for bleeding to happen after you are discharged from hospital. Bleeding may cause the following:

- severe pain
- swelling of your abdomen

- faintness or dizziness
- blood visible in your urine.

If any of these happen following your biopsy, please contact us.

## **Final points**

If you can't remember or understand all that you have read, don't worry. You will have plenty of opportunity to discuss the biopsy and your condition with the medical and nursing staff. If you think of any questions write them down so that you remember to ask us.

If you have any queries at all please contact us via the Renal Unit Secretaries on:

Dr Parry / Dickinson            01872 253241

Dr Johnston / Dr Gentile      01872 253264

Dr Stratton                        01872 252734

If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

