

# What is a kidney (renal) biopsy?

## What is a kidney biopsy?

A kidney biopsy (also called a renal biopsy) is a medical test where small samples of tissue are removed from your kidney with a needle, so they can be examined under a microscope. Usually 2 or 3 small samples are taken. It is done to diagnose and monitor certain kidney conditions, such as inflammation of the kidney. It is also used to monitor kidney transplants. Having a biopsy will help your doctor to make a more accurate diagnosis of your condition and will help your doctor decide on the most appropriate treatment for you.

## Who will be performing my biopsy?

A renal doctor or radiology doctor will perform your biopsy. An ultrasound or CT (computed tomography) scan will be used to help accurately place the biopsy needle into the kidney.

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

### Bleeding

Bleeding is a possible risk after a kidney biopsy. In 3-5% of cases, visible blood may appear in the urine and can still appear after your discharge from hospital. The majority of bleeding following a kidney biopsy is minor and needs no special treatment. Occasionally it can be severe. If you have signs and symptoms of excess bleeding, which include increasing pain around your biopsy site and/or bright red colour urine, you may need an ultrasound scan to assess your bleeding. In very rare cases a procedure called an angiogram may be needed to stop your bleeding. If you have concerns about your bleeding, please contact the Renal Outpatient Clinic.

### Pain

After your kidney biopsy you may experience pain or discomfort around your biopsy site. If your pain worsens or increases in intensity please seek medical attention.

## Giving my consent (permission)

The staff caring for you will ask you to sign a consent form if you agree to the procedure. The form states that you understand the benefits, risks and alternatives. If there is anything you don't understand or you need more time to think about it, please tell the staff caring for you. Remember, it's your decision. You can change your mind at any time, even if you have signed the consent form. Let staff know immediately if you change your mind.

## How can I prepare for the procedure?

- You will need to have a blood test at least two (2) days before your kidney biopsy to check that your blood is clotting normally. This test is necessary as there is an increased risk of bleeding after a procedure if your clotting tests are abnormal.
- You will be admitted on the morning of your biopsy to the Medical Imaging Day Ward at the Canberra Hospital.
- You may eat a light meal up to 2 hours prior to your procedure and may drink water until the time of your procedure.
- Please let your doctor know about all medicines that you are taking including:
  - blood thinning medicines i.e. aspirin, warfarin, clopidogrel, apixaban or fish oil.
  - over the counter medicines e.g. anti-inflammatories
  - herbal medicines e.g. Chinese medicines, St John's Wort.
- On the morning of your kidney biopsy please take your medicines as normal, unless advised not to by your doctor or nurse.

## What happens during your kidney biopsy?

All kidney biopsies are done in the radiology department using either an ultrasound machine or CT (computed tomography) scanner to view your kidney during your biopsy.

1. A small plastic tube (cannula) may be put into your arm. You will be asked to lie on your front (for a non-transplant kidney biopsy) or on your back (for a transplant kidney biopsy). Your skin will be cleaned with an antiseptic solution and draped with sterile towels.
2. Local anaesthetic will be injected around the area from where your biopsy will be taken. This feels like an ant bite. Within seconds, the area numbs, so you should not feel any further pain, although you will feel pressure from the needle.
3. Your doctor will use the ultrasound scanner to find your kidney and take your biopsy with a needle. For a biopsy of a non-transplant kidney, you will be asked to briefly hold your breath while your biopsy is taken. This is because your kidneys move a lot when you breathe in and out. Transplant kidneys do not move with breathing, so holding your breath is not needed.

4. Usually 2 or 3 samples need to be taken to get enough kidney material for analysis. This is usually done through the same hole in the skin, so taking extra samples should not cause pain.

Once your procedure is finished, your sample is sent to the laboratory for microscopic examination. Your wound site will be cleaned and a dressing will be put over the site.

## **Will I feel any pain?**

- The local anaesthetic will sting, however, in almost all cases the biopsy itself does not cause pain.
- The position in which you will be asked to lie during your procedure may be uncomfortable for a short period. If you experience any discomfort or pain during your procedure, please tell your nurse so that we can help make you comfortable.
- You may have some mild pain or discomfort after the biopsy. You can take paracetamol tablets, following the instructions on the packet. If you feel more severe pain, or are worried for other reasons, seek urgent medical attention.

## **What happens after my kidney biopsy?**

After your biopsy you will stay in a hospital bed for four (4) - six (6) hours. During this time we will keep you under regular observation and check your urine.

You will be able to eat and drink unless you have been told not to. We will provide you with light refreshments. If you have any special dietary requirements, you may wish to bring food and drink with you.

Your nurse will tell you when you can get up and move around. You will usually be allowed to go home later that day after a doctor has reviewed you.

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

Your full results are available after approximately ten (10) working days. If you do not have a follow up appointment, please contact the Renal outpatient Nurse on (02) 6174 8218 or Renal Outpatients on 02 6244 2046 for an appointment.


## **What happens when I go home?**

You will be able to go home after you have been able to pass urine and are feeling well. Please arrange for someone to drive you home and be with you for the night after the procedure. If you usually take blood thinners (anticoagulants such as warfarin, aspirin or clopidogrel) check with your renal physician about when you can safely start taking them again.

## At home:

- Eat your normal diet.
- Rest for the remainder of the day and possibly for the next day, depending on your recovery. You should avoid strenuous activity for at least 5 days and avoid contact sports for at least one week.
- Have someone stay with you overnight.
- Take your usual pain relief, as prescribed, if you have any pain.
- Continue with your normal medicines (except anticoagulants and anti-inflammatory medicines)
- Keep a regular check on your biopsy site and your urine. You may see blood in your urine once you go home. This should reduce over time. If the discolouration is any more than light pink, you should seek medical attention.
- If you live outside the ACT, we recommend staying in Canberra overnight after your procedure. Affordable accommodation is available at the Canberra Hospital. Please discuss this with the nurse in Renal Outpatients when your procedure is being booked.

## What if I have a problem at home?

- If you need advice please contact:
  - **Business hours**  
Renal Outpatient Clinic  
Monday to Friday, 8:30 am – 4:30 pm.  
 02 6174 8218 or 02 6244 2046
  - **After Hours**  
General Practitioner or after hours doctor service i.e. CALMS
- Please go to your nearest hospital emergency department if you experience any of the following:
  - **'Bright red' blood in your urine**
  - **Increasing pain and/or swelling over your puncture site**
  - **You feel you need urgent medical attention.**

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