Having a kidney biopsy
Information for Patients

Summary Points to Remember

- Resting in bed reduces the risk of bleeding
- Avoid strenuous activity, bending, or heavy lifting for 2 weeks

Why have I been asked to have a kidney biopsy?

Although blood, urine and other tests are very useful it is sometimes not possible to determine the cause of kidney disease without taking a small piece of the kidney. Looking at the structure of this sample of kidney under the microscope nearly always allows a precise diagnosis to be made and appropriate treatment to begin.

What happens on the ward?

You will be admitted either on the day of the biopsy or the day before, and you will meet your nurse and doctor. You will have your temperature, pulse and blood pressure taken and we may need to test your urine. You will have blood tests before or on arrival and if these, or your blood pressure, suggest an increased risk of bleeding after the biopsy, then it may be postponed.

An explanation of the procedure will be given to you and you will be asked to sign a consent form. If you have any questions, please ask them BEFORE signing.

How is the biopsy actually done?

The biopsy is sometimes done in the ultrasound department or on the ward that you are admitted to.

To biopsy your kidneys you may be asked to lie on your tummy in a comfortable position but for a transplant kidney the biopsy is usually done with you lying on your back. The exact position of the kidney to be biopsied will be determined by ultrasound scanning. After cleaning the skin with antiseptic, local anaesthetic is injected into the skin. Once this has taken effect, the anaesthetic is introduced progressively deeper until a track down to the kidney has been numbed completely.

A small cut is made in the anaesthetised skin and the biopsy needle passed down to the kidney. You may be asked to hold your breath for a few seconds while the biopsy is taken. We use a machine to take the biopsy called a biopsy gun which makes a loud click when each sample is taken and this is normal.

To take enough material to make a diagnosis it may be necessary to take more than one sample.
**Does it hurt?**
The injection of local anaesthetic usually stings when it is first injected into the skin. The biopsy will not be taken until enough anaesthetic has been given to allow the biopsy needle to be positioned correctly without pain. Most patients say that their kidney biopsy was uncomfortable but did not hurt.

**What are the risks of a kidney biopsy?**
Small risks are associated with biopsy procedures. You will only be asked to have a kidney biopsy if the benefits of knowing the diagnosis outweigh the risks of the procedure. All kidney biopsies bleed slightly, but only a very small minority bleed heavily enough to cause a problem. There is a ~1 in 100 chance of bleeding sufficiently severe to require a blood transfusion. There is a much smaller risk, approximately 1 in 500 that an additional surgical or x-ray procedure would need to be performed to stop bleeding. It has been reported that a kidney needs to be removed or a patient has died after biopsy but this is so rare that we cannot quantify this risk. At The Royal Melbourne Hospital we perform hundreds of renal biopsies every year and very few patients experience any ill effects.

**Is there anything I should tell the doctor?**
Yes – tell the doctor if

- You are allergic to iodine or chlorhexidine (the cleaning solutions).
- You know your blood has a problem with clotting
- You are on or have taken aspirin, heparin or warfarin in the last 7 days.

If you are on aspirin this should be stopped one week before the biopsy date. If you are on warfarin, you will be told when to stop this in the clinic.

**What happens after the biopsy?**
Resting in bed after the procedure reduces the risk of bleeding. For the first 4-6 hours you will be asked to rest in bed. The nurses will take your blood pressure very frequently as a normal precaution to detect bleeding. If there is no evidence of any bleeding, you may be discharged.

**What should I do at home?**
Rest if possible. You can go back to work after two days rest at home but you should avoid any strenuous activity, bending (e.g. picking up shopping) or heavy lifting for 2 weeks after a renal biopsy of your own kidneys or after 1 week of a transplant biopsy.

**When can I have a bath/shower?**
The day after the biopsy.

**When do I get the results?**
Provisional results are sometimes available within 24-48 hours and this allows diagnosis of many kidney problems. However, the kidney tissue has to be examined with special stains and sometimes an electron microscope before the final definitive results may be available. This usually takes at least two weeks.
**Pre admission**

Sometimes if we can predict when you are coming for a biopsy you will need to have your blood pressure and some blood tests checked 2 to 3 days before the biopsy. If this is the case you will receive a letter with written instructions along with some blood forms which should be brought up to the hospital.

*Please ask the doctor if you would like any further information or if you do not understand anything.*

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**Contact**

**Practitioner / Patient notes**

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