



York and Scarborough  
Teaching Hospitals  
NHS Foundation Trust

# Renal Biopsy

Information for patients, relatives and carers

① For more information, please contact:

Secretaries for Renal Medicine

York Telephone

01904 725374, 725813, 721252, 725393

Email: [yhs-tr.yorkrenalmedsecs@nhs.net](mailto:yhs-tr.yorkrenalmedsecs@nhs.net)

Harrogate Telephone

01423 553507

York Hospital, Wigginton Road, York, YO31 8HE



<b>Contents</b>	<b>Page</b>
About this leaflet.....	4
What is a renal biopsy? .....	4
Why do I need a renal biopsy? .....	4
Who has made the decision? .....	5
Is there an alternative to the procedure? .....	5
Who will be performing my renal biopsy? .....	6
What should I bring to Hospital with me?.....	6
What happens before my renal biopsy? .....	7
Are there any risks or complications? .....	8
What actually happens during the renal biopsy? .....	10
Will it hurt? .....	11
What happens after the renal biopsy? .....	12
Following discharge:.....	13
How do I care for my wound site? .....	13
What do I do if I feel unwell once home? .....	13
What should I do if I develop blood in my urine? .....	14
What should I do if my biopsy starts to bleed?.....	14
How much can I do when I get home?.....	14
What if I was taking warfarin or another anticoagulant medication before the procedure? .....	15
What if I was taking aspirin, clopidogrel, ticagrelor or dipyridamole and was asked to stop them prior to the procedure? .....	15
When do I get my results?.....	16
Finally.....	16

## **About this leaflet**

This leaflet tells you about the procedure known as a “renal or kidney biopsy”. It explains what is involved and what the possible risks are. It is not meant to replace a discussion between you and your doctor, but we hope you find the information helpful.

## **What is a renal biopsy?**

A renal or kidney biopsy means removing a very small sample of tissue from one of your kidneys using a special needle. The sample can then be tested under a microscope to find out the cause of your kidney disease.

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

Many different diseases can affect the kidney. The kidney only has a small number of ways of showing that there is something wrong. These include finding blood and/or protein in the urine, a worsening of kidney function determined by blood tests and an increase in blood pressure.

Because many different diseases can cause these changes, a kidney biopsy is the only way of being sure which disease is affecting your kidney.

## **Who has made the decision?**

The Consultant looking after you feels that a renal biopsy is the best thing to do in order to give you the most accurate information about what is wrong and decide on the most appropriate treatment. However, the medical staff who are looking after you want you to be able to understand this test and give your views on what to do. If after discussion with your doctors, you do not want the procedure carried out, you can decide against it.

## **Is there an alternative to the procedure?**

Whilst scans and blood tests do give us useful information, there is no other satisfactory means of obtaining a sample of tissue which gives such a reliable picture of the kidney's cells and their health.

A biopsy is usually the last test to be done to work out what is wrong with your kidneys because the other tests have not provided the answer. Without a biopsy, your doctor may not be able to advise the best treatment for you.

## **Who will be performing my renal biopsy?**

A Radiologist, who is trained in using x-ray and scanning equipment, will perform your procedure, with the aid of ultrasound. The biopsy will take place in the Radiology Department or in the Vascular Imaging Unit (VIU).

## **What should I bring to Hospital with me?**

- Medications in their original containers
- Overnight bag (although you may not have to stay overnight)
- Toiletries
- Something to read

## **What happens before my renal biopsy?**

Your renal biopsy will have been scheduled either as a day case procedure or with an overnight stay. In either case you will be asked not to eat anything after an early light breakfast. You may continue to drink.

If you are taking non-steroidal medications these need to be stopped for seven days prior to the biopsy.

If you take any medicine that interferes with clotting of the blood, make sure that we know at least 10 days before you come in by telephoning your consultants secretary. This includes warfarin or one of the newer anticoagulant medicines such as dabigatran, rivaroxaban or apixaban and aspirin, clopidogrel, ticagrelor or dipyridamole. Do not stop taking these drugs until you have received further instructions.

You will have blood taken in clinic and following admission more blood samples will be taken.

You will be asked to provide a sample of urine which will be tested prior to your biopsy.

The procedure will be fully explained to you, along with the risks. If you are happy to proceed you will be asked to sign a consent form (FYCON120-3 Renal Biopsy). You will be given a copy and a copy will be stored in your patient notes.

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

A renal biopsy is generally a safe procedure. However, as with any medical treatment, complications can arise.

### **Bleeding**

There is a risk of bleeding from the kidney. A small amount of blood appearing in your urine is common; invisible traces of blood in the urine are quite common (about 1 in 5 people); visible blood in the urine occurs in about 1 in 20 people, although we would expect this to stop before you go home. Significant bleeding following a biopsy is much less common. About 1 in 100 people may need to have a blood transfusion. About 1 in 200 people may need to have an X-ray procedure where a small tube is placed in the artery at the top of the leg and passed up into the kidney to stop the bleeding. In very rare cases, surgery may be required to stop the bleeding. This could mean an operation to remove the kidney. The risk of this happening is so small that it is not possible to give an accurate estimate of how often this occurs.

### **Damage to organs**

There is a risk of damage to organs next to the kidney. In practice this is very unlikely to occur.

## **Unsuccessful biopsy**

Unfortunately not all biopsies are successful. This may be because, despite taking every possible care, the piece of tissue that has been obtained is not suitable for analysis under the microscope. Every effort is made to obtain a satisfactory sample. About 1 in 10 biopsies does not lead to a definite diagnosis.

## **Does renal biopsy have a risk of death?**

Although death has occurred following renal biopsy this is extremely rare. The estimated risk is less than 1 in 1000 cases.

## **Uncommon complications**

Other complications include infection or an allergic reaction to the local anaesthetic used, although these are very uncommon.

Despite these possible difficulties, complications are rare and a large number of kidney biopsies are performed safely and successfully at York hospital every year.

# **What actually happens during the renal biopsy?**

You will usually be asked to lie face down, unless we are taking a biopsy of a transplant kidney, where you will lie face upwards. The position of your kidney will be checked with an ultrasound scan.

The Radiologist will then clean your skin with antiseptic and will cover some of your body with a sterile sheet. Local anaesthetic is used to numb the skin. This will sting to start with but this quickly passes off.

When the area is numb, the Radiologist will then introduce the biopsy needle into the kidney and take the sample. You will be asked to hold your breath for a few seconds as the kidney moves during breathing. Usually you should not be aware of any pain from the biopsy needle but you will feel a sensation of pressure and hear a clicking sound when the biopsy sample is taken. The doctor may take two or three samples, to send for analysis. Finally a dressing is applied.

## **Will it hurt?**

When the local anaesthetic is injected, it will sting to start with, but this soon passes off. You may experience mild to moderate pain after the procedure and you will be prescribed pain relief if required. The pain usually resolves within a few hours. Rarely persisting pain can mean that patients planned for day case procedures may require an overnight stay.

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

Depending whether you are having your renal biopsy as a day case or with an overnight stay your care will be continued in the Radiology Department or you will be taken back to the ward on a trolley with a nurse to escort you.

In either case you will be asked to lie on your back for four hours and then to stay in bed for a further two hours. The nurses will take your blood pressure and check your wound site at frequent intervals. During this time you can eat and will usually be encouraged to drink plenty of fluids. Pain relief will be administered if required. Before you are discharged a sample of your urine will be checked for the presence of blood.

If you are attending as a day case you will usually be discharged after your recovery time by one of the nurses caring for you. You will need to ensure that someone collects you from the department and that you have someone to stay with you overnight. If you are unable to arrange this please ring 01904 726065 for advice. If you are staying as an overnight patient you will usually be discharged the following morning.

## **Following discharge:**

### **How do I care for my wound site?**

You will have a small dressing over the biopsy site. This can be removed the following day.

### **What do I do if I feel unwell once home?**

Please telephone the ward you were discharged from or if a day case the Vascular Imaging Unit on 01904 726065 Monday to Friday between 8am and 5pm if any of the following occur.

- If the site becomes excessively bruised
- If a lump appears over the site
- If you have pain that is not relieved by simple painkillers or is getting worse
- If you see blood in your urine that you haven't seen before

If you have any other concerns outside these hours please contact either your GP or attend your nearest Emergency Department and tell them you have had a renal biopsy. They can get advice from the renal consultant on call if necessary.

## **What should I do if I develop blood in my urine?**

If you develop visible blood in your urine you should contact either the ward you were discharged from or attend your nearest Emergency Department.

## **What should I do if my biopsy starts to bleed?**

**Light bleeding** – e.g. marking the small dressing

This should stop quickly with rest.

### **Heavy Bleeding**

- Call someone for help
- Lie flat and get your helper to apply firm pressure over the bleeding point
- Get your helper to phone 999

## **How much can I do when I get home?**

Most patients feel able to return to work within 24hours and resume normal activities. We advise you to avoid very strenuous exercise or contact sports for one week.

## **What if I was taking warfarin or another anticoagulant medication before the procedure?**

This includes warfarin, low molecular weight heparin injections such as enoxaparin or any other anticoagulant medication such as dabigatran, rivaroxaban, apixaban or edoxaban.

If you stopped this before your biopsy, please make sure you ask the doctor or nurse looking after you before you leave the hospital when to start taking it again.

## **What if I was taking aspirin, clopidogrel, ticagrelor or dipyridamole and was asked to stop them prior to the procedure?**

Restart these after 48 hours unless instructed otherwise.

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

It usually takes around a week for the Pathologist to do all the necessary tests on biopsy specimens and pass the results onto your Consultant's team. It is not therefore usually possible to give you the results before you leave the hospital. Your Consultant will arrange for you to receive the results as soon as possible. You will often initially receive them by letter and then later at your next outpatient visit.

## **Finally**

We hope that this leaflet has answered many of your general questions. You should feel free to discuss the procedure and the possible risks and benefits in your particular case with the medical staff. Please make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

For further information please look at the UK National Kidney Federation website:

<http://www.kidney.org.uk>

## **Tell us what you think of this leaflet**

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

Dr C Jones, Consultant, Renal Medicine, York Hospital, Wigginton Road, York, YO31 8HE, telephone 01904 725374 or email [yhs-tr.yorkrenalmedsecs@nhs.net](mailto:yhs-tr.yorkrenalmedsecs@nhs.net).

## **Teaching, training and research**

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

## **Patient Advice and Liaison Service (PALS)**

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email [yhs-tr.PatientExperienceTeam@nhs.net](mailto:yhs-tr.PatientExperienceTeam@nhs.net)

An answer phone is available out of hours.





# Leaflets in alternative languages or formats

Please telephone or email if you require this information in a different language or format, for example Braille, large print or audio.

如果你要求本資 不同的 或 式提供 , 電  
或發電

Jeżeli niniejsze informacje potrzebne są w innym języku lub formacie, należy zadzwonić lub wysłać wiadomość e-mail

Bu bilgileri değişik bir lisanda ya da formatta istiyorsanız lütfen telefon ediniz ya da e-posta gönderiniz

Telephone: 01904 725566

Email: [yhs-tr.FacilitiesmanagementHelpdesk@nhs.net](mailto:yhs-tr.FacilitiesmanagementHelpdesk@nhs.net)

Owner	L Sharples, Radiology Sister
Date first issued	May 2011 (replaces PIL 4 Having a kidney biopsy)
Review Date	June 2025
Version	4 (issued July 2023)
Approved by	Dr C Jones and Radiology CGG
Linked to consent form	FYCON120-3 Renal Biopsy v3
Document Reference	PIL 570 v4
© 2023 York and Scarborough Teaching Hospitals NHS Foundation Trust	
All Rights reserved.	