

Imaging department

Having a percutaneous nephrostomy

Information for patients

Introduction

This leaflet tells you more about having a percutaneous nephrostomy. Please feel free to ask our team any questions you have about the information below.

What is a percutaneous nephrostomy?

It is a procedure in which a nephrostomy tube (also known as a catheter) is inserted through a very small cut in your skin into the kidney to drain urine.

A clear dye containing iodine which shows up on X-rays (contrast medium) is used to highlight the area and enable insertion of the nephrostomy tube. The nephrostomy tube is usually then connected to a drainage bag (to collect your urine) outside your body.

Why do I need a percutaneous nephrostomy?

Your doctor has recommended that you have this procedure because other tests may have shown that there is a blockage of the tube which carries urine from the kidneys to the bladder (ureter). If left untreated, your kidney will become damaged.

A nephrostomy will also help an infected kidney that cannot drain properly.

What are the risks and benefits of having a percutaneous nephrostomy?

This method of draining urine from the kidney is considered to be a safe procedure, which may save you from having an operation.

However, there are some risks and possible complications that can arise:

- for two in 100 patients (or 2%) there is a risk of infection of the kidney or the skin around the insertion site. We will give you antibiotics before the procedure to help minimise the risk of infection. If you do develop an infection this can usually be treated with antibiotics.
- sometimes there is a leak of urine from the kidney, resulting in a small collection of fluid inside the tummy (abdomen). If this becomes a large collection it may require draining. This happens in one in 100 of patients (or 1%)

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- there may be bleeding from the kidney. On very rare occasions, (one in 50,000 or 0.002%), this may become severe and require surgery
 - there is a risk of reaction to the special iodine dye used in the examination (contrast medium). This is very rare and occurs in one in 40,000 patients (0.0025%)
 - there is a possibility that the specialist imaging doctor (radiologist) may be unable to place the drainage tube satisfactorily in the kidney. The radiologist will discuss this further with you

The use of imaging guidance, such as X-rays or ultrasound, during the procedure help to minimise the risk of complications.

The radiologist performing the procedure will discuss the risk factors relevant to your condition with you before starting and will be happy to answer any questions you may have.

Are there any alternatives to this test?

This treatment is usually recommended to prevent the need for an operation, which is the only alternative to it.

Is there anything I need to do before my percutaneous nephrostomy?

You will need to be admitted to hospital and be seen by the ward doctor or nurses before you come to the imaging (X-ray) department to have the tube inserted.

- you will not be able to eat food or milk for six hours before the procedure. You can drink clear fluids up to one hour before your procedure
- it is very important that you have had your blood taken recently, as the results of these tests will tell us how well your blood clots. Please note that we will not do your percutaneous nephrostomy without having normal results from your blood tests
- you can take all your medications as usual, except **blood-thinning tablets** (such as **warfarin** or **clopidogrel**). If you take blood-thinning medications, it is very important that you inform your doctor or the imaging department staff before you come into hospital, as you will need to stop taking them before your appointment. This **excludes** aspirin, which you can continue to take as normal
- please also let us know if you have any allergies before your appointment
- if you are **pregnant** or think that you may be pregnant, you must inform your referring clinician and the imaging staff so that appropriate protection or advice can be given about your appointment.

What happens on the day of my appointment?

1. A fine plastic tube (cannula) will be inserted into a vein in your arm to give you antibiotics before the procedure. The cannula will be left in so that we can give you pain relief if necessary during the percutaneous nephrostomy.
2. Before coming to the imaging (X-ray) department, we will ask you to change into a hospital gown.
3. We will discuss the procedure with you in detail and ask you to sign a consent form. This is to make sure you understand the risks and benefits of having the procedure. Staff in the imaging department will then check your details before taking you into the X-ray room.
4. The imaging staff will ask you to lie on the X-ray table before connecting you to a monitor. This will record your blood pressure and pulse throughout the procedure.
5. The area where the nephrostomy tube is to be inserted will be cleaned with antiseptic fluid and covered with a sterile sheet (drape). The specialist imaging doctor (radiologist) will use the ultrasound machine and X-ray equipment to decide on the most suitable point for inserting the catheter. This will probably be in your back, just below your ribcage.
6. The radiologist will give you an injection of local anaesthetic to numb the area. When the area is completely numb, the radiologist will make a small cut and then insert a fine needle into the kidney, possibly using contrast medium for guidance.
7. When the radiologist is sure that the needle is in the correct place, a fine wire will be placed into the kidney, over which the plastic catheter can be positioned correctly. The catheter will then be fixed to the surface of the skin with a stitch, covered with a dressing and secured with tape before it is attached to a drainage bag.
8. You may be aware of the needle and then the catheter passing into the kidney and sometimes this is painful. Once in place, it should not hurt at all. If it does become uncomfortable, tell the radiologist and they may be able to give you some more local anaesthetic. The whole procedure will take at least 30 minutes to complete.

What happens afterwards?

You will be taken back to the ward where you will need to rest in bed for a few hours until you have recovered.

The nursing staff will continue to record your pulse and blood pressure during this time. They will also check your insertion site and measure your urine output to make sure that there are no problems.

You will be able to carry on as normal with the catheter in place, which will be attached to the collection bag. You will need to be careful not to drag the nephrostomy tube out. Do not move or stand up suddenly without checking that the nephrostomy tube and urine bag can move freely with you.

The bag will need to be emptied often so that it does not become too heavy. The ward nurse will need to measure the amount of urine collected by the bag each time it is emptied to make sure that you are producing enough urine.

How long will the nephrostomy tube stay in?

This depends on your condition. Some patients only need the tube for a few days. Others need a further procedure to insert a tube to improve urine flow (stent) into the ureter to keep it open.

The procedure to remove the nephrostomy tube is quick and simple. The ward doctor looking after you will be able to discuss this further with you. If you do go home with the tube still in place, your doctor or ward nurse will show you how to take care of it.

When can I go home?

Your doctor or the ward nursing staff will be able to tell you about this.

Is there anything I need to watch out for at home?

You may notice a small amount of bruising where the catheter was inserted. However, if you:

- notice any swelling or redness around the insertion site
- have a high temperature
- notice urine leaking around your nephrostomy tube

please either contact your GP or go to your nearest Emergency Department.

What if I cannot keep my appointment?

Please contact us as soon as possible. We can then offer this date to another patient. We can agree a new appointment date and time with you.

You will find the appropriate telephone number on your appointment letter.

How do I get to the hospital?

Please visit the Trust's website for more information about travelling to our hospitals:
www.imperial.nhs.uk/our-locations

Contact details

Please do not hesitate to contact our imaging departments if you have any queries or concerns:

- Charing Cross Hospital: Fulham Palace Road, London W6 8RF
Telephone: 020 3313 0077

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- Hammersmith Hospital: Du Cane Road, London W12 0HS
Telephone: 020 3313 0077
 - St Mary's Hospital: Praed Street, Paddington, London W2 1NY
Telephone: 020 3312 6418

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3312 7777** (10.00 – 16.00, Monday to Friday). You can also email PALS at imperial.pals@nhs.net. The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:
imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information visit our website: www.imperial.nhs.uk

Imaging department
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