



## Information for patients undergoing percutaneous insertion of Nephrostomy tube

### What is a percutaneous nephrostomy?

A nephrostomy is a procedure in which a small plastic tube is inserted into your kidney through your skin (generally under local anaesthetic, which is a small injection to make your skin numb). This procedure allows urine to drain through the tube into an attached drainage bag. The procedure is carried out by an Interventional Radiologist within the hospital's Imaging Department. The most common reason for this procedure is if the ureter (the tube connecting your kidney to your bladder) becomes blocked; this can cause a build-up of urine in the kidney (which is called hydronephrosis) which can cause damage to your kidney if left untreated. An alternative method of treating this problem is to insert an internal stent into the ureter through the bladder under general anaesthetic to bypass the blockage and allow the urine to flow through to the bladder again.

### How should I prepare for the procedure?

A percutaneous nephrostomy is either carried out as an elective day case procedure or is performed on patients who are already in hospital. For day case procedures you will be admitted to hospital on the day of your procedure and are usually able to return home the same day. However, it is still a good idea to bring an overnight bag (including clothes, toiletries and your regular medication) in case you are kept in overnight for further observation. If the procedure is being carried out while you are an inpatient on one of our wards, your nurses will let you know if there is anything you need to do to prepare.

Please let the doctors and/or nursing staff know, before your procedure, if any of the following apply:

- You are on a regular prescription for a blood thinning agent such as warfarin, aspirin, clopidogrel, ticagrelor, rivaroxaban, apixaban, prasugrel or dabigatran
- You have a previous or current MRSA infection
- You are allergic to anything
- You have ever had a reaction to the dye (contrast agent) used for X-ray procedures or CT scans

You will be given a single dose of antibiotic before the procedure if you are not having these regularly.

You must not eat or chew gum or drink anything except for clear fluids for six hours prior to the procedure. You must stop drinking clear fluids two hours prior to the procedure. Clear fluids include water, squash, and tea or coffee without milk.

### What should I expect during the procedure?

You will be admitted on to the ward, where the nurses will go through all of your admission paperwork and prepare you for the procedure. You will be given a hospital gown to change into. You will be asked to sign a consent form either before your admission to hospital or when you arrive in the Interventional Radiology Department.

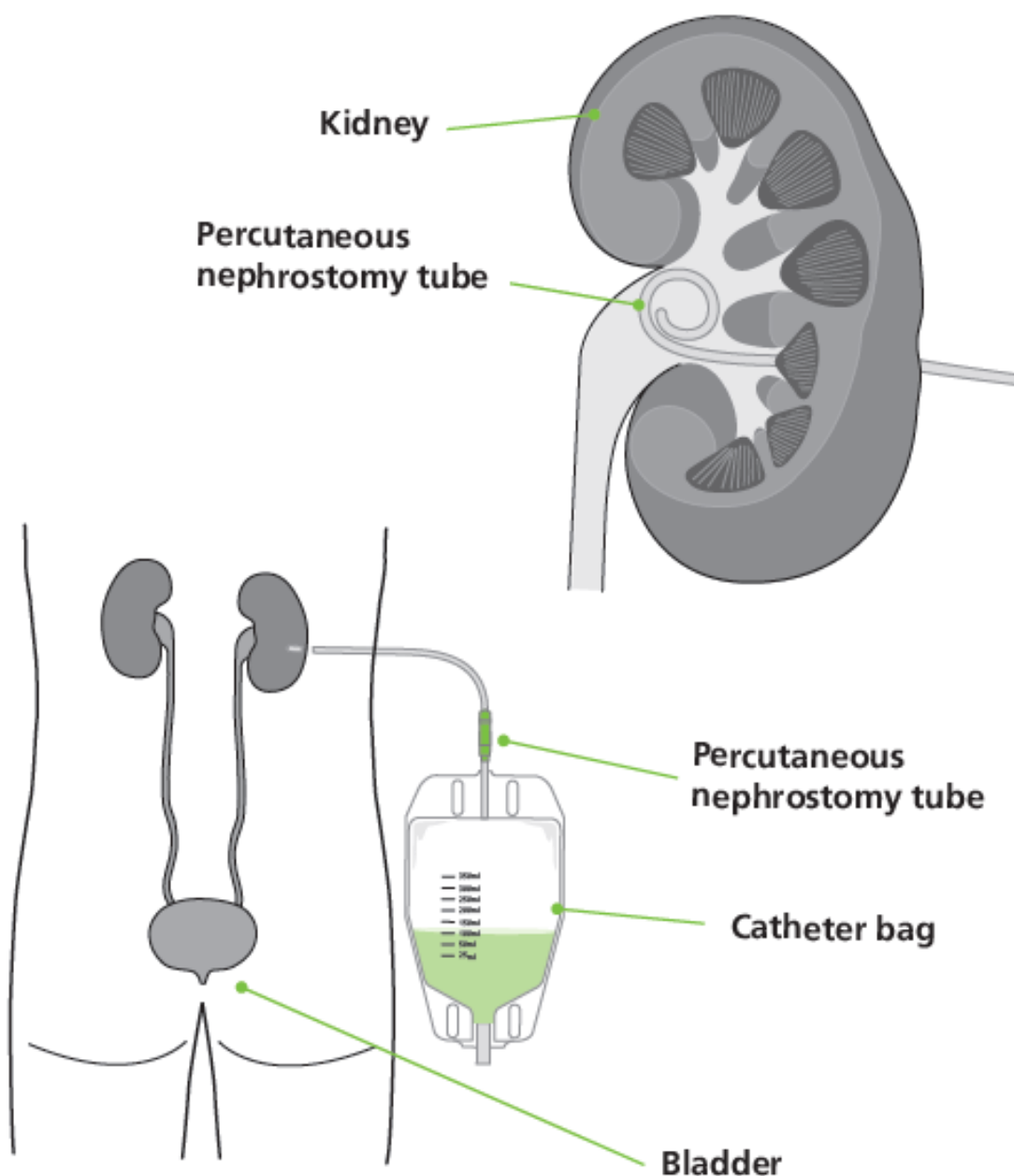
## Information for Patients

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In the angiography suite, you will be asked to lie on an X-ray table either flat on your tummy or turned slightly to one side. A small cannula (drip) will be placed in a vein in your hand or arm so that the radiologist can give you pain relief or sedation (medicine to make you sleepy) if needed. They may also put some small sticky pads on your chest and a painless device on one of your fingers to monitor your heart rate, breathing, and oxygen levels.

In order to insert the tube, the radiologist will clean your skin with antiseptic and then numb the area with local anaesthetic using a very small needle. They will then insert a fine needle into your kidney using ultrasound or X-rays to ensure they are in the correct position. A guidewire will then be passed through the needle, and a plastic catheter (nephrostomy tube) is placed over the guidewire. This catheter is then secured with a stitch (suture) and the nephrostomy drainage bag is attached.

The procedure itself usually takes about 20 minutes but can occasionally take longer.



### Are there any risks?

A nephrostomy is a very safe procedure, and most patients do not experience any problems. However, as with all procedures, there are some risks which are listed below:

- **Bleeding:** It is very common to see blood in the urine which collects in the drainage bag; in most cases this will clear over the next 24–48 hours. In a small number of cases bleeding may persist. Should this happen you may require a blood transfusion. A separate procedure called an angiogram may be required in order to stop the bleeding
- **Infection:** Occasionally the urine within the kidney will be infected and this infection may pass into the blood stream. You will be given antibiotics before the procedure in order to prevent this but should it occur you may feel unwell and have to continue a course of antibiotics for several days. The wound around the nephrostomy site may become inflamed or infected after the procedure. This will usually be treated with antibiotics
- **Failure to place the nephrostomy tube:** If the radiologist is unable to place the tube you may be offered a repeat attempt or require a stent to be placed under general anaesthetic. This is a very rare occurrence

### What happens after the procedure?

You will be returned to the ward, where nursing staff will carry out routine observations of your blood pressure, pulse, and temperature, as well as inspecting the nephrostomy site. You will be asked to remain in bed for four to six hours after the procedure, though this might sometimes be shorter at your consultant's discretion.

Once your bed rest has finished, you are free to move around. You will have the nephrostomy tube and collection bag attached to you, so be careful not to make any sudden movements which could pull at the tube. The bag will need to be emptied regularly (once it is about two thirds full) so that it does not become too heavy. Your nurse can show you how to do this if you are unsure. While you are on the ward, your nurses may wish to measure the amount that is in the bag before you empty it.

If you are being discharged the same day as your procedure, you will need somebody with you who can escort you home.

### How long will the nephrostomy tube stay in place?

The length of time you need to keep the nephrostomy tube in place will depend on why it has been inserted, this can only be answered by the doctors looking after you. In some cases, such as when the ureter had been blocked by a stone that then passed naturally, the tube will only need to stay in for a short time. In other cases, such as if the blockage needs to be fixed by some other method, the tube will need to stay in for a longer time.

Occasionally your nephrostomy tube will need to remain in place for several months or longer in which case it should ideally be changed for a new tube every three to six months. You can discuss this with your doctors and / or the radiologist. If your tube needs to be changed, or if it is no longer needed and can come out, you will be sent an appointment to come back into hospital for the necessary procedure.

### Discharge advice

#### Sedation

If you have been given sedation to keep you comfortable during the procedure, you should be

## Information for Patients

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aware that it can impair your reflexes and judgment, and you may feel sleepy, confused, or dizzy. This will wear off over the next 24 hours.

If you have been given sedation, then during the next 24 hours:

- Rest quietly
- Do not drive a car
- Do not take sleeping tablets
- Do not operate any machinery or electrical items
- Do not make any important decisions such as signing any legally binding documents
- Do not work at heights (including climbing ladders or onto a chair)
- Avoid alcoholic drinks or smoking

### Eating and drinking

You may eat and drink as normal, unless your doctors tell you otherwise. You should aim to drink at least 2 litres of fluid a day to help keep you well hydrated.

### Taking care of the bag

A nephrostomy bag must be checked every day to ensure it is not kinked and that it is draining. When moving around, you must make sure that the bag is secure and not too full. Please also make sure that the waterproof dressing is secure and intact around the insertion site, as this will help keep the tube in place.

You should change your bag once a week and will be given contact details of the bag suppliers so that your GP can arrange for an ongoing supply. If you do not feel able to change the bag yourself, and do not have a family member or carer present who could help, please discuss it with your nurse prior to going home.

### Other activities

You may find that moving around is a bit painful for the first 24 hours. Take pain relief regularly as prescribed, and move as best you can. If the pain continues after 48 hours, please contact your consultant or your GP.

Please avoid any strenuous exercise, as this could dislodge the tubing. Sexual intercourse can be safe, so long as your bag and tubing remain secure.

We advise that you do not go swimming or have a bath until the dressing has been removed, as you would risk soaking the dressing.

### Dressings and wound care

The nephrostomy site will have been covered with a sterile dressing to help protect the wound. You need to make sure that this stays clean and dry; if it comes off or gets wet, you will need to get it changed.

In the first few weeks after the nephrostomy is inserted, your dressing will need to be changed once a week, so that your nurse can inspect your insertion site and put on a fresh dressing. After a while, your nurse may decide that it is safe to keep the dressing off. Before you are discharged from the ward, your nurse will either arrange for you to visit your practice nurse weekly, or else will make a district nursing referral for you, so that the district nurses can visit you weekly to change your dressing and examine the insertion site.

You will be able to have a shower 24 hours after the procedure, but you should use plastic wrap to protect the dressing and keep it completely dry.

## Complications

- **Persistent bleeding:** Although it is normal to have small amounts of blood in the urine at first, this should clear after 24–48 hours.
- **Infection:** Monitor the colour and consistency of the urine in your bag, as cloudiness or sediment may be an indication of infection. Please also monitor the skin around your tube for any redness, swelling, heat, or discharge. If you feel hot and feverish, this may also be an indication of infection
- **Pain:** A certain amount of pain and tenderness is to be expected, and can usually be managed with over the counter pain relief. If, however, it is getting worse and is not controlled by regular pain relief, please seek advice
- **Blockage:** Please make sure that your tubes continue to drain well. If you notice that your bag isn't draining properly, please seek urgent advice

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### **Interventional Radiology**

Queen Elizabeth Hospital Birmingham  
Mindelsohn Way, Edgbaston  
Birmingham, B15 2GW  
Telephone: 0121 371 2000

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