



## Diagnostic Imaging Department

# PERCUTANEOUS NEPHROSTOMY

This leaflet tells you about the procedure known as 'insertion of a nephrostomy tube'. It explains what is involved and what the possible risks are.

### **What is 'insertion of a nephrostomy tube'?**

A nephrostomy tube is inserted when there is a blockage stopping urine draining from the kidney to the bladder. It is a small tube inserted through the skin into the kidney which allows urine to drain into a collecting bag outside the body. It is important to drain urine from a blocked kidney as, if it is left untreated, progressive kidney damage or serious infection can occur.

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

The Consultant in charge of your case and a Radiologist will have discussed your case and feel this is the best way of treating you. You should have already had the various treatment options explained to you by the doctors looking after you. However, you will also have the opportunity to ask any further questions when you come down to the x-ray department for the procedure.

### **Who will be performing the procedure?**

A doctor called an Interventional Radiologist who has been specially trained in performing procedures using x-ray and scanning equipment.

### **Where will the procedure take place?**

In the x-ray department in a 'special procedures room'.

### **Is there any preparation?**

You will need to have some routine blood tests. Your doctor will arrange for these to be completed.

If you are taking anti-coagulants e.g. warfarin, clopidogrel, apixaban or rivaroxaban, you will be required to stop taking them prior to the procedure. Please contact the Radiology Nurses on 01305 255276 to inform them if you take this medication.

You will be asked not to eat or drink for a minimum of 4 hours prior to the procedure.

## **Consent**

Informed consent will be obtained prior to the procedure. Staff will explain all the risks, benefits and alternatives before asking you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to speak with a senior member of staff.

## **What happens during the procedure?**

If you are not already an inpatient you will be admitted to hospital for the procedure.

The interventional radiologist will explain the procedure to you before asking you to sign the consent form.

A needle will be put in a vein in your hand or arm so that a sedative, painkiller and/or antibiotic can be administered if required.

You will be assisted onto the x-ray table and you will be asked to lay flat on your stomach, with your arms in front of you, as if sun-tanning your back.

A nurse will attach a monitor to your chest, arm and finger so your blood pressure, pulse etc. can be recorded. You will receive oxygen through small tubes in your nose.

Your skin will be cleaned with an antiseptic solution and a sterile drape will be laid over you to help avoid infection. The interventional radiologist will use an ultrasound machine to find the best place to enter the kidney. A local anaesthetic will be injected into your skin and deeper tissues. It will sting for a few seconds before the area goes numb.

A fine needle will be inserted through the skin into the kidney. X-ray dye will be injected through the needle. When the interventional radiologist is sure that the needle is in a satisfactory position, a guide wire will be placed into the kidney through the needle. The nephrostomy tube is placed over the wire into the kidney and then the wire is removed, leaving the tube in the kidney allowing the urine to drain. The tube will then be fixed to the surface of the skin with a suture and dressing. A drainage bag will be attached. The urine will flow from your kidney through the tube into the bag.

## **How long will it take?**

Every patient is different. The procedure can take between thirty minutes to one hour.

## **Will it hurt?**

You will feel stinging as the local anaesthetic is injected. .

The procedure may be slightly uncomfortable but painkillers can be administered by the monitoring nurse through the needle in your arm/hand. Once the tube is in place it should not hurt.

## **What happens afterwards?**

You will be taken back to the ward on a bed. Nursing staff will monitor your blood pressure, pulse, temperature etc., to make sure there are no problems. You will stay in bed for a few hours, until you have recovered.

You may eat and drink normally once the sedation has worn off.

The nursing staff will monitor the urine draining into the bag; this may be blood stained at first but should clear over time.

You can carry on a normal life with the tube in situ. Remember to be careful not to catch the tube, for example when dressing, because it is possible for these tubes to be inadvertently pulled out. The bag can be strapped to your leg for comfort and the ward staff will teach you how to empty the bag. Care should be taken when showering to avoid getting the dressings wet. A water resistant dressing can be supplied.

If you are well enough, you may be allowed home later that day, or you may need to stay overnight.

### **You must:**

- Have a responsible adult to collect you, as you cannot drive home or travel on public transport.
- Have someone to stay with you for the first night just in case your wound bleeds or you feel unwell.
- Have access to a telephone.

## **How long will the tube stay in for?**

This is something which you will need to discuss with your urologist or the team caring for you. It will depend on your condition and circumstances. It will be removed if treatment can relieve the blockage, for example a stent.

Some patients are not suitable to have treatment or a stent and, in these cases, the nephrostomy will be permanent but will be changed periodically.

## **What are the risks and complications?**

Percutaneous Nephrostomy is a common and safe procedure but, as with any medical treatment, there are some risks and complications that can occur.

There may be slight bleeding from the kidney, and blood staining of the urine for a day or two after the procedure is not uncommon. On very rare occasions this may become severe and require another radiological procedure or surgical operation to stop it. This could result in damage to or loss of the kidney, but this is extremely rare.

If urine in the blocked kidney is infected, you may get shaking, chills or fever during or soon after the insertion of the tube. This can be treated with antibiotics.

There is an extremely small risk of experiencing a reaction to the x-ray dye. If you have had previous reactions to x-ray dye then please tell the x-ray staff prior to the procedure.

### Will I need further treatment?

Your doctor may consider that further treatment is required. This depends on what is causing the blockage. Options included:

- **Ureteric stenting.** A stent is a plastic tube which is placed across the blockage extending from the kidney to the bladder. It is placed through the nephrostomy tube already attached to you. This procedure may be done at the same time as your nephrostomy insertion or a few days later. This will be discussed with you in advance. Your doctor will decide when the stent can be removed. Sometimes a permanent metal stent is inserted.
- **Surgery.** To relieve the blockage.

### Looking after a nephrostomy

You may be discharged home with the nephrostomy tube in situ. A referral will be made by the ward staff to your local District Nurse to assist with the care of the tube.

The skin around the nephrostomy tube insertion site should be kept clean and, to prevent infection, a sterile dressing (drain fixative) should be placed around the site where the tube leaves the skin.

The nephrostomy tube will be stitched at the drain site where the tube leaves the skin. It is important that the urine bag is either strapped to your thigh, attached to a drainage system belt or pinned to your clothing with a safety pin. It is important NOT to leave the bag hanging as the weight of the urine and any tugging may cause the nephrostomy tube to become dislodged or fall out. The urine bag should be changed weekly.

### Ordering equipment

Patients returning home with a nephrostomy in situ should be sent home with at least one spare bag. It is the responsibility of the GP/District Nursing team to order further supplies.

If your District Nurse is unable to source the same type of drainage bag used in hospital, there is an alternative which can be used and is available on prescription.

The Nephsys nephrostomy drainage system contains different size bags and a belt which is worn under clothes and to which the drainage bag attaches. The Nephsys products and FP10 codes (prescription) are:

Complete Nephrostomy Drainage System		
Prescription/FP10 code	PIP code used by chemist	Description
Component parts		
NSBelt.01	305-1521	Small belt (900mmx 38mm) and 2 suspenders
NSBelt.02	305-1513	Adult belt (1500mmx 38mm) and 2 suspenders
NS721.1720S	305-1547	10x500ml drainage bags short 20cm inlet
NS721.1730S	305-1539	10x500ml drainage bags long 30cm inlet
CS.TABS	304-6570	10x micro-hook self-adhesive tabs and 1 x dark green Velcro fabric tab. Used to reduce drag on inlet tubes.

Advice Helpline: 01604 595 696

These items can be organised through a home delivery service: **rapidcare**

Contact details: Call on the Freephone number 0800 18 19 01 or  
Email on [sales@rapidcare.co.uk](mailto:sales@rapidcare.co.uk)

### Contact Numbers:

We hope that you have found this information useful. If you have any questions or are worried about anything, please contact your referring consultant or family doctor (GP).

To contact your referring consultant, please call:

Dorset County Hospital on 01305 251150 and ask for the secretary of your consultant

Or

Urology Nurses on 01305 255145

Or

Radiology Sister on 01305 255276

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If you have feedback regarding the accuracy of the information contained in this leaflet, or if you would like a list of references used to develop this leaflet, please email [pals@dchft.nhs.uk](mailto:pals@dchft.nhs.uk)



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