

Radiology Department

Nephrostomy Information Leaflet

Introduction

You have been advised by your hospital consultant that you need to have a Nephrostomy Insertion and you have been referred to the Radiology department to have this procedure.

This information leaflet tells you about having a Percutaneous Nephrostomy. It explains what is involved and what the possible risks are.

This is not intended to replace the discussion between you and your consultant, but may act as a starting point for discussion. If, after reading this information, you still have concerns or require further explanation, please contact the Radiology Team on the telephone number 02476967115

Please read this leaflet carefully to ensure you are successfully prepared for the examination.

Please contact the X-ray Department if your weight is equal to or more than 205Kg (32 stone) – You may require an alternative examination.

What is a Percutaneous Nephrostomy?

A Percutaneous Nephrostomy is a special X-ray procedure, sometimes performed under sedation, to relieve the symptoms of an obstructed kidney.

The urine from a normal kidney drains through a narrow, muscular tube, called the ureter, into the bladder. When the tube becomes blocked, for



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example by a stone, the kidney can become damaged if left untreated, especially if there is infection present as well.

While an operation may become necessary to unblock the ureter, it is also possible to relieve the blockage by inserting a thin plastic drainage tube (called a nephrostomy) into the kidney. This drainage tube then allows the urine to drain from the kidney into a collecting bag, outside the body.

This procedure is called a Percutaneous (meaning through the skin) Nephrostomy (a tube put into the kidney). It does not treat the cause of the blockage but relieves the symptoms until a solution to the problem can be found.

The examination will be performed by a radiologist who will be assisted by a radiographer and a radiology nurse. The procedure may take up to 45 minutes.

Referral and Consent

If you are having the Percutaneous Nephrostomy as a planned procedure, then you should have plenty of time to discuss the situation with your consultant and the radiologist (a specialised X-ray doctor) who will be inserting the Nephrostomy.

It is more likely that you need the Nephrostomy done as an emergency, and so there may be less time for discussion, **but none the less you should have had sufficient explanation before you sign the consent form.** If after discussion with your hospital doctor or radiologist you do not want the procedure carried out, then you can decide against it.

If the radiologist feels that your condition has changed or that your symptoms do not indicate such a procedure is necessary then he/she will explain this to you, communicate with the referring clinician and ask that you return to your referring clinician or ward for review. At all times the radiologist and referring clinician will be acting in your best interests.

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Points to Remember

- Please bring any sprays or inhalers that you are taking with you to your appointment.
- We also ask you to leave any valuable possessions on the ward.
- If you are diabetic please note that you are required to starve before the examination. **Please inform the ward staff so that an alternative medication may be given if necessary.**
- If you are taking aspirin or Warfarin please inform the ward staff, as this medication may need to be stopped prior to the procedure.

Preparation

- Please do not eat or drink anything for 4 hours prior to your appointment.
- You will have had some special blood tests to check your blood clotting ability.
- Vitamin K may be required before the procedure if your blood clotting ability is lower than desired.
- You will need a cannula inserted into a vein in your arm to allow access for fluids and for administering medication. You will be given one dose of prophylactic (preventative) antibiotics to help protect you from infection.
- Your ward doctors will explain the procedure and you will be asked to sign a consent form.
- You will need to wear a hospital gown. The porters will collect you from the ward and bring you to the X-ray department for the procedure.

Risks of Procedure

As with any procedure or operation complications are possible. We have included the most common risks and complications in this leaflet. The possibility of these complications occurring will vary for each patient and will be discussed with you before you sign the consent form.

Bleeding: there will be slight bleeding from the kidney. On rare occasions, this may become severe. Your urine will be blood stained but this should start

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to clear after 24 hours. If it does not start to clear a simple X-ray test (nephrostogram) may be required to find out why.

Infection: occasionally there may be infection in the kidney. This can usually be treated with antibiotics.

Kidney damage: very rarely damage may occur to the kidney.

Despite these possible complications, the procedure is normally very safe. At all times during and after the procedure the staff will be monitoring your responses to this treatment in order to minimise the effects of any complications.

- It is possible that you may have an allergic reaction from the contrast agent used. You will be asked about allergies by the radiologist or radiographer at the time.
- X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives; this comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the test. We will take all safeguards to minimise the amount of X-rays you receive.

Safety

The contrast agent contains iodine and is excreted by the kidneys in your urine. Please inform the radiologist or radiographer:

- If you are allergic to iodine, have any other allergies or suffer from asthma.
- If you have reacted previously to the injection used for kidney X-rays and CT scanning.
- If you are on renal dialysis.

Female patients aged 12 – 55 years: the risks of radiation are slightly higher for the unborn child so you will be asked to confirm that you are not pregnant before the examination can proceed.

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During your examination

The procedure will be again explained to you by the radiologist. You will be able to ask any further questions that you may have.

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- You will be taken into the X-ray room where you will be asked to get onto the x-ray table. You may be asked to lie either on your side or on your tummy.
- You may be given some medication through the cannula in your arm to sedate you (make you relaxed and sleepy). It is routine for you to be given continuous oxygen through a face mask and have your observations monitored by a radiology nurse who will stay with you throughout the procedure.
- The radiologist will use the ultrasound machine to decide on the best place for inserting the plastic drainage tube. This is usually in your back, just below your ribs.
- Your skin will be cleaned with cold antiseptic solution and sterile drapes will be placed over this area. Then your skin will be numbed with local anaesthetic. When the local anaesthetic is injected, it will sting to start with, but this soon wears off, and the skin and deeper tissues should then feel numb.
- A thin needle will then be inserted into the kidney. When the radiologist is sure that the needle is in the correct position, a guide wire will be placed through the needle and into the kidney under x-ray control, which then allows the plastic catheter to be positioned correctly. Generally, placing the catheter in the kidney only takes a short time and once in place it should not hurt at all.
- The catheter will then be fixed to the skin surface and attached to a drainage bag. A dressing will be placed on your skin over the catheter.
- It is not always easy to predict how complex or how straightforward the procedure will be and thus how long it could take. It may be over in 30 minutes, or very occasionally it may take longer than 60 minutes. As a guide, expect to be in the Radiology Department for about an hour altogether.

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After your examination

- You will be taken back to your ward. Nurses will carry out routine observations, such as taking your pulse, blood pressure and temperature, to make sure that there are no problems. You will stay in bed overnight.
- The drainage tube stays in place attached to a drainage bag. It is important that you take care of this. You should try not to make any sudden movements, for example getting up out of a chair without remembering the bag, and you should make sure that it can move freely with you. The bag will need to be emptied regularly, so that it does not become too heavy, and the nursing staff will want to measure the amount of urine in it each time.

If you have any problems after the procedure please speak to the staff on the ward.

Other Sources of Information

For general information about radiology departments visit the Royal College of Radiologists' website: www.rcr.ac.uk/public-and-media/what-expect-when.

For information about the effects of X-rays read the NRPB publication: "X-rays how safe are they?" on the British Institute of Radiology website: www.bir.org.uk/patients-public/x-rays-and-their-safety.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 6331 on your appointment letter and we will do our best to meet your needs.

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