

Percutaneous Nephrostomy

Radiology

Introduction

The aim of this leaflet is to explain the procedure for patients undergoing a nephrostomy insertion. This leaflet is not meant to replace informed discussion between you and your doctor, but can act as a starting point for outlining risks and benefits.

What is a percutaneous nephrostomy?

A nephrostomy is a procedure in which a fine plastic tube (catheter) is placed through the skin into your kidney to drain your urine. The urine is collected in an attached drainage bag.

Why do you need a nephrostomy?

The most common reason for having a nephrostomy is due to a blockage of the ureter. The urine from a normal kidney drains through a narrow muscular tube (the ureter) into the bladder. When the ureter becomes blocked, the kidney rapidly becomes affected, especially if infection is present. If left untreated, your kidney will be damaged. A nephrostomy drainage will relieve the symptoms of blockage and keep the kidney working.

Shared decision making

The choice about which treatment is best for you will be made together with your doctor. This will be based on the risks and benefits of the treatment and your individual circumstances.

Who will do the procedure?

An interventional radiologist will perform the nephrostomy. They have special expertise in interpreting the images and using imaging to guide catheters and wires to aid diagnosis and treatment.

Consent

We must seek your consent for any procedure or treatment beforehand. Written consent will be obtained from yourself, by a doctor, to give permission to have the procedure carried out. Your doctor will explain the risks, benefits and alternatives where relevant before you sign the consent. A referral will be made and your appointment will be arranged. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

What are the potential risks?

Serious complications from nephrostomies are uncommon but please be aware of the following:

- If the bleeding becomes more severe, a different procedure or even surgery may be necessary to stop the bleeding
- The urine in the kidney may be infected. This can usually be treated with antibiotics, but occasionally you can feel unwell after the procedure
- Sometimes there is a leak of urine from the kidney, resulting in a small collection of fluid inside the abdomen. If this becomes a large collection, it may require draining under local anaesthetic
- Very rarely, the interventional radiologist will be unable to place the drainage catheter satisfactorily in the kidney. If this happens, you may require a small operation to overcome the blockage or a repeat procedure
- The nephrostomy tube may become dislodged or blocked and therefore you may need to come back into hospital to have it replaced / unblocked (see the end of the leaflet for contact details if this happens)
- Death as a result from this procedure is extremely rare
- **Radiation:** Ionising radiation may cause cancer many years or decades after the exposure. We are all at risk of developing cancer during our lifetime. 50% of the population is likely to develop one of the many forms of cancer at some stage during our lifetime. It has been estimated that undergoing this procedure may increase the chances of this happening to you to about 0.1 %. The requesting doctor and the doctor that will be performing your examination feel that the benefit of having the test or treatment outweighs the risk from the exposure to radiation. If you have further questions about the risk of exposure to radiation, please talk to your doctor during consent.

Please contact the X-ray department as soon as you receive this appointment if you think you may be pregnant.

Contrast agent:

The "dye" that is used to show the kidney can have side effects for a minority of patients:

- 3 in 100 of patients experience nausea and hot flushes
- 4 in 10,000 may have more serious effects including breathing difficulties.

If a side effect does occur the doctors, nurses and radiographers are trained to deal with it.

What are the benefits of having a nephrostomy?

- The procedure may help to relieve symptoms making you feel better
- Most cases are under local anaesthetic meaning a faster recovery after the procedure.

Are there any alternative treatments and what if I decide not to have it done?

The consultant in charge of your care will discuss the alternatives with you. They will also discuss the consequences of no treatment.

Are you required to make any special preparations?

These procedures are usually carried out as a day case procedure under local anaesthetic (a medication used to numb an area of the body to reduce pain).

- You can eat and drink as normal unless a doctor or nurse has specifically said otherwise
- If you have any allergies or have previously had a reaction to the dye (contrast agent), you must tell the radiology staff before you have the procedure
- Please inform the Interventional department if you require transport to the hospital.

If you are taking the following medication and the doctor has not discussed them during consent please contact the X-ray Department when you receive this information:

Acenocoumarol, Apixaban, Aspirin, Bivalirudin, Dabigatran, Dalteparin, Danaparoid, Dipyridamole, Edoxaban, Enoxoparin (clexane) Fondaparinux, Heparin, Phenindione, Tinzaparin, Warfarin.

Where will the procedure take place?

The procedure will take place in the angiography suite; this is located within the radiology department. This is similar to an operating theatre in which specialised X-ray equipment has been installed.

If you are on a different ward the angiography suite will liaise with your ward nurse and porters to arrange transport for your procedure.

What actually happens during the procedure?

You may be asked to change into a hospital gown. Observations of your heart rate and blood pressure will be taken during and after the procedure. This is routine. You will be asked to lay on your front on the X-ray table. A team of nurses and radiographers will assist the radiologist during the procedure. An interventional radiologist uses an ultrasound probe and X-rays to allow accurate access through a minute incision in your back. Local anaesthetic is injected at the procedure site. This may sting for a few seconds but then will go numb. The interventional radiologist will place various catheters into the kidney and will inject contrast agent to visualise your anatomy throughout the procedure. You may be able to feel this, but there should be no pain. The catheter will then be fixed to the skin surface, and attached to a drainage bag. Once the nurse has dressed the insertion site you will await on the radiology day ward for porters to transport you back to the ward. If you are a day case on the radiology ward, you will remain there during your recovery.

Will it hurt?

When the local anaesthetic is injected it will sting but this will soon wear off. Later, you may be aware of the needle and the catheter passing into the kidney. This can be painful, especially if the kidney was sore to start with. There will be a nurse next to the X-ray table to look after you. As the contrast agent passes around your body you may get a warm feeling which some people can find a little unpleasant. This should not last long. Pain relief may be given at the time of the procedure if appropriate. You should discuss this with the doctor doing your procedure on the day.

How long will it take?

Every patient is different, and it is not always easy to predict; however, expect to be in the radiology department for about one hour.

What happens afterwards?

- You will return to the radiology day case unit or ward
- The nurse on the unit will take your pulse and blood pressure to make sure that there are no problems. Once handed over, the nurse looking after you on the ward / day unit will continue with these observations until you are well enough to be discharged
- You will generally stay in bed for a few hours, until you have recovered
- The nephrostomy catheter remains in place in your body for the time being and will be attached to a collection bag. You will be able to carry on normal life with the catheter in place. The bag needs to be emptied fairly frequently so that it does not become too heavy. The nurses may wish to measure the amount of urine collected each time during your stay in hospital.

Going home advice

- You need to contact the company who will deliver your nephrostomy bags to your home. This should be done as soon as possible to allow for delivery time before you need to change your bag. If you are an inpatient, the ward can contact the company on your behalf
- You will need somebody to come and collect you if the ward are happy for you to go home
- Any concerns should be reported to the Interventional Radiology Department or your local Emergency Department
- You may shower or bathe 48 hours after the tube has been inserted but try to keep the tube site itself dry
- You should try to keep the skin around the nephrostomy tube clean to prevent infection. You should put a sterile dressing around the area where the tube leaves your skin; this should be changed at least twice a week, especially if it gets wet. You may need help from a family member or a nurse at your GP practice
- If you experience a high temperature, back pain, redness or swelling around the tube, leakage of urine from the drainage site, poor (or absent) drainage or if your tube falls out, you should contact your doctor or visit your local Emergency Department immediately as you may have an infection
- Driving after surgery: It is your responsibility to make sure you are fit to drive after any surgical procedure. Information can be found on the DVLA website: <https://www.gov.uk/guidance/renal-and-respiratory-disorders-assessing-fitness-to-drive#all-other-renal-disorders>
- A follow up appointment will be made and sent to you in the post.

If there are any issues with your nephrostomy after insertion, please contact the surgical assessment unit on 01902 307999 ext 84003. Issues may include: blocked, dislodged, displaced / leaking, signs of infection (swelling, discharge) or blood in the nephrostomy bag.

How long will the tube stay in?

This is a question that can only be answered by the doctors looking after you. A nephrostomy will stay in until the cause of the blockage is treated. If this is long term then the nephrostomy will need to be exchanged regularly (on average every 3 months but this may vary for each patient). If your nephrostomy becomes blocked and no longer drains before your exchange date then you must get in contact with your urologist secretary or visit your local Emergency Department.

Trainees

A radiology trainee (qualified experienced doctors training in Radiology) or occasionally a student may be present during the examination. If you would prefer them not to attend, please let a member of Radiology staff know.

How to contact us

If you have any personal access needs, require wheelchair access or wish to speak to a member of staff for further information please contact the interventional radiology department on 01902 307999 ext. 86344 between 8:30am – 4:30pm as the department cannot help with queries outside of these hours.

Angiography Suite / Interventional Radiology

Second floor Radiology A2
New Cross Hospital
Wolverhampton
West Midlands
WV10 0QP

For any concerns with your nephrostomy, please contact the surgical assessment ward on 01902 307999 ext 84003. This ward operates a 24 hour service.

Patient Advice and Liaison Service

New Cross Hospital

01902 695362

Email: rwh-tr.pals@nhs.net

Buller Healthcare

0800 888 501

Ask for Lesley Brown or Cathy Corbett

Information taken from:

British Society of Interventional Radiology

http://www.bsir.org/static/uploads/resources/BSIR_Patient_Leaflet__Percutaneous_Nephrostomy.pdf

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。