

Percutaneous Nephrostomy

Information for patients, relatives and carers

① For more information, please contact:

Radiology Department

York Hospital,
Wigginton Road, York, YO31 8HE

Vascular Imaging Unit
Telephone: 01904 726065

Or

Scarborough Hospital
Woodlands Drive, Scarborough, YO12 6QL

Radiology Nurses
Telephone: 01723 342304

About this leaflet

This leaflet tells you about the procedure known as percutaneous nephrostomy. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but we hope you find the information useful.

What is a percutaneous nephrostomy?

Percutaneous nephrostomy is a procedure to insert a small drainage catheter tube through the skin into a kidney. It is carried out when it is necessary to drain urine from the kidney. The catheter allows the urine to drain into a collecting bag outside the body.

Why do I need a percutaneous nephrostomy?

Urine normally drains from the kidneys down narrow tubes called ureters to the bladder. The most common reason to perform a percutaneous nephrostomy is that the ureter has become blocked (obstructed) leading to back pressure on the kidney. Over time this causes irreversible damage to the kidney. Even if the cause of the obstruction is not yet known, a nephrostomy may be needed as a temporary measure to protect the kidney.

Occasionally a percutaneous nephrostomy is needed for other reasons. Your doctor will explain if this is the case.

Who has made the decision?

You will have already had other tests, and the doctors in charge of your case will have discussed the results of these with a radiologist (a doctor specialising in examinations and procedures using x-rays). They have recommended that this is the best treatment option for you.

If, after a full discussion of the procedure, you do not want it to be carried out, then you can decide against it. Occasionally a percutaneous nephrostomy may need to be done urgently. In these cases there is less time for discussion but it is important you receive sufficient explanation before you sign the consent form.

Are there any alternatives?

In some cases, an alternative means of draining the kidney by placing a catheter from the bladder back up to the kidney ("retrograde ureteric stent") is an option and will be discussed with you if relevant.

Do I continue to take my usual medication?

If you are taking blood-thinning medication (anticoagulants or antiplatelet medication), please let your doctor or the radiology team know as soon as possible. You may need to stop some medications before the procedure, but this will depend on the type of medication you are taking, your kidney function and the reason it has been prescribed. Do not stop any blood-thinning medication unless you have been specifically advised to do so.

Low-dose aspirin can usually be continued. If you are taking clopidogrel, ticagrelor, prasugrel, warfarin, apixaban, rivaroxaban, dabigatran or edoxaban, you will be given individual instructions before your procedure.

What happens before the percutaneous nephrostomy?

- You will be admitted on to a ward for this procedure if you are not already an inpatient.
- You may be asked not to eat for six hours prior to the procedure but may be allowed to drink water until two hours before.
- A doctor or nurse will place a cannula into a vein in your arm so that you can be given mild sedatives, painkillers and antibiotics as needed.
- You will be asked to change into a hospital gown.
- If you have any allergies or if you have previously reacted to intravenous contrast medium, the dye used for kidney X-rays and CT scanning, then you must tell the doctor looking after you.
- You will have the procedure explained and you will be given the opportunity to ask questions. You will then be required to sign a consent form (FYCON147-1 Percutaneous Nephrostomy) to confirm that you agree to the procedure and understand the information given to you. This form will be kept in your patient notes and you will also be offered a copy for your own records.

What happens during the percutaneous nephrostomy?

The procedure is carried out in the Interventional Radiology department. You will lie on the X-ray table, usually on your front or your side.

You will have some monitoring equipment put on your arm and finger to check your heart rate and oxygen levels. If necessary, you will be given oxygen through a small tube in your nose.

The skin on your back will be cleaned with antiseptic, and you will be covered with sterile sheets.

The radiologist will locate the correct area to insert the catheter using x-rays and ultrasound. Then, after numbing the area with local anaesthetic they will insert the nephrostomy catheter, either directly or by first placing a fine needle into the kidney and then enlarging the track in stages. The catheter is secured firmly to the skin surface, and a collecting bag is then attached.

The procedure usually takes about half an hour and may be uncomfortable at times. If you should need extra pain relief during the procedure, just tell the doctor or nurse. Once the catheter is in place any discomfort is usually minor.

What happens after the percutaneous nephrostomy?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations such as pulse and blood pressure.

You will need to stay in bed for a few hours until you have recovered from the procedure.

While the catheter remains in place you can carry on life quite normally, but you must remember to look after the catheter and bag. As the catheter may be attached to a leg bag or a fill bag attached to your back, you may need help from another person to ensure the catheter and bag are secure.

The bag will need to be emptied of urine when it fills up.

How long the catheter stays in place depends on the reason it was needed. Other tests and treatments may be necessary. When the nephrostomy catheter is no longer needed it can easily be removed.

What are the benefits of a percutaneous nephrostomy?

To allow external drainage of urine from the kidney and minimise kidney damage.

Are there any risks or complications?

Percutaneous nephrostomy is a very safe procedure, but as with all medical treatment, complications can arise.

- If the radiologist is unable to get the catheter into the kidney, then an alternative drainage method may be needed. This could involve surgery. Less than two in 100 cases.
- Sometimes urine may leak from the kidney into the surrounding tissues. If this occurs and forms a large urine collection, then it may require draining. Less than one in 100 cases.
- Slight bleeding from the kidney is usual following nephrostomy. On rare occasions this becomes severe and may require a further radiological procedure or surgical operation to stop it. Two in 100 cases.
- An obstructed kidney is often infected, and the necessary insertion of a drainage catheter can cause germs to enter the bloodstream (septicaemia). Antibiotics and intravenous fluid should treat this effectively. One in 100 cases.

These complications happen rarely and your doctor feels that the small risks are outweighed by the likely benefits.

X-rays are used to take the pictures, so the procedure also carries small risks associated with ionising radiation. If you are female and you might be pregnant, it is essential that you inform a member of staff beforehand.

The amount of radiation varies depending on the complexity of the procedure but is typically similar to what you would receive from the environment, as something called background radiation, in one to 12 months.

All of the above risks have been considered by the radiologist and your doctors who feel that the risks are outweighed by the potential benefits to you of having the procedure. Please ask if you have concerns or would like to discuss further.

Finally

Some of your questions should have been answered by this leaflet but remember this is not designed to replace discussion with the doctors looking after you. Please make sure you are satisfied with the information you have received and that all your questions have been answered before you sign the consent form.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Dr R Gali, Consultant Radiologist, Department of Radiology, York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726065.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net

An answer phone is available out of hours.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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