



Percutaneous nephrostomy

This leaflet is intended to provide answers to some of the questions that you may have about percutaneous nephrostomy. It is not meant to replace discussion between you and your doctor but can act as a starting point for such a discussion.

What is percutaneous nephrostomy?

Percutaneous means 'through the skin' and a nephrostomy is a tube put into the kidney. Urine normally drains from the kidney through a narrow tube known as the ureter, into the bladder. When the ureter is blocked (for example by a stone, blood clot or other cause) the kidney can be damaged. It may be possible to drain the urine by inserting a fine plastic tube, called a drain, through the skin and into the kidney under local anaesthetic. The urine can then drain from the kidney into a collecting bag outside the body.

Alternative treatments

If nothing is done, a blocked kidney will stop working and if it contains infection this can lead to serious generalised infection (septicaemia).

Inserting a plastic tube (ureteric stent) up from the bladder with a special camera is possible. However, this usually requires a general anaesthetic (which some patients cannot tolerate) and it may be unsuccessful or not achieve adequate drainage of the kidney.

Who will be doing the percutaneous nephrostomy?

A specially trained doctor called an interventional radiologist.

Where will the procedure take place?

Usually, in the X-ray Department (Radiology).

How do I prepare for percutaneous nephrostomy?

- You should not eat for 6 hours beforehand but you are allowed to drink water up to 2 hours beforehand.
- You will be given intravenous (via a drip) antibiotics.
- You will be asked to put on a hospital gown. In the two weeks before your liver biopsy you will need to have blood samples taken to make sure your blood clots properly. Blood samples can either be taken in the hospital's phlebotomy (blood test) department or at your GP's surgery.
- Ideally, blood-thinning medication such as Warfarin, Dabigatran, Rivaroxaban, or Clopidogrel are temporarily discontinued prior to the nephrostomy insertion. This is not always possible or you may be required to take additional short acting blood thinners for a few days before.

Most patients are inpatients and this is sorted out on the ward. However if you are having the procedure as an outpatient and you are taking any of these medications and have not received instructions to stop them please contact the X-ray Department on 0118 322 8368.

- You will be asked **not to eat for 6 hours nor drink for 2 hours before the biopsy.**
- Please take all normal medication other than those mentioned above that need to be stopped for the biopsy.
- **If you have any allergies, you must let your doctor know.**
- **If you have reacted to intravenous contrast medium (the dye used for kidney x-rays and CT scanning), then you must tell your doctor.**

What actually happens during a percutaneous nephrostomy?

The exact technique varies but is generally as follows:

- You will have a needle placed in a vein in your arm so you can be given painkillers or sedatives if needed. Once in place, this needle does not cause any pain.
- You will have monitoring devices attached to your chest and finger, and may be given oxygen.
- You lie on your tummy on the x-ray table. The skin of your back, just below the ribs, will be cleaned and anaesthetised (numbed) with local anaesthetic. A fine needle will be inserted into the kidney using ultrasound or x-ray guidance. A wire will be passed through the needle and a fine plastic tube (catheter) passed over the wire into the kidney. The catheter will be attached to a bag to collect the urine.

Will it cause discomfort?

There may be some discomfort for a short period of time, but most pain should be controlled with painkillers.

Local anaesthetic is injected but you may be aware of the needle passing into the kidney, especially if the kidney is sore to start with. There will be another member of staff looking after you and your comfort so tell them if you are anxious or in pain.

Generally, placing the drain in the kidney only takes a short time, and once in place it should not hurt.

How long will it take?

Every patient's situation is different but as a guide; expect to be in the X-ray department for about an hour.

What happens afterwards?

You will be taken back to your ward where routine observations will be carried out. You will usually stay in bed for a few hours.

The drain stays in place in your body and will be attached to a urine collection bag – which can be attached to the side of the bed or strapped to your leg or safety pinned to your gown/clothing. You will be able to carry on normal activities with the drain and bag in place. However, it is important that you do not make any sudden movements without remembering about the bag, as occasionally the drain can be accidentally pulled out.

How long will the drain stay in, and what happens next?

Only the doctors looking after you can answer these questions. Taking the drain out does not usually hurt.

What are the risks or complications?

Percutaneous nephrostomy is a safe procedure but as with any medical treatment there are risks and possible complications.

- 25% (1 in 4) of people have minor complications that require no treatment.
- Major complications, including death, occur in less than 0.5% (1 in 200) of percutaneous nephrostomies.
- In almost all cases, some blood will appear in the urine. This is usually not serious and stops within a few hours. However, bleeding from the kidney may continue and, on rare occasions, become severe (2% of patients require blood transfusion). This may require an angiogram (an x-ray of the blood vessels using dye) or operation to stop it.
- Occasionally (3%), the radiologist is unable to place the drainage tube satisfactorily in the kidney. If this happens, then another method of overcoming the blockage will be arranged.
- Sometimes, there is a leak of urine from the kidney causing a small collection of fluid inside the abdomen. If this becomes large then it may require draining.
- Infection in the kidney can generally be treated satisfactorily with antibiotics.

Where can I find out more?

UK Kidney Federation www.kidney.org.uk Helpline: 0845 601 0209 (Freephone UK landline)

The British Society of Interventional Radiology <http://www.bsir.org/patients/patient-information-leaflets/>

Finally...

This leaflet should have answered some of your questions, but remember that this is only a starting point for discussion with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

Contacting us

Radiology Department, Tel 0118 322 7991.

Radiology Day Case Unit, Tel 0118 322 8368 (Monday-Friday 8.30am-5pm).

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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