

Patient information

Percutaneous Nephrostomy

Interventional Radiology Department

This leaflet tells you about the procedure known as Percutaneous Nephrostomy, explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such a discussion.

If the Percutaneous Nephrostomy is being done as a pre-planned procedure, then you should have plenty of time to discuss the situation with your consultant and the Interventional Radiologist who will be doing the percutaneous nephrostomy, and perhaps even your own family doctor (GP).

If you need the nephrostomy as an emergency, then there may be less time for discussion, **but none the less you should have had sufficient explanation before you sign the consent form.**

What is a percutaneous nephrostomy?

The urine from a normal kidney drains through a narrow, muscular tube, the ureter into the bladder. When that tube becomes blocked, for example by a stone or a blood clot, the kidney can rapidly become affected, especially if there is infection present as well.

While an operation may become necessary, it is also possible to relieve the blockage by inserting a fine plastic tube, called a catheter, through the skin into the kidney under local anaesthetic.

This catheter 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)

Why do I need a percutaneous nephrostomy?

Other tests will have shown that the tube leading from your kidney to the bladder has become blocked. However, it may not be obvious what the cause of the blockage is. If left untreated, your kidney will become damaged.

The doctors in charge of your case and the Interventional Radiologist doing the procedure will have discussed the situation, and feel that this is the best treatment option. However, you will also have the opportunity for your opinion to be considered, and if, after discussion with your doctors, you do not want the procedure carried out, then you can decide against it.

What are the benefits of having a percutaneous nephrostomy?

This procedure relieves the blockage in your kidney by draining urine through a tube into a bag. It is an alternative to an operation.

What are the risks of having a percutaneous nephrostomy?

- Perhaps the biggest problem is being unable to place the drainage tube satisfactorily in the kidney. If this happens, a surgeon will arrange another method of overcoming the blockage, which may involve surgery.
- 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.
- There may be slight bleeding from the kidney. On very rare occasions, this may become severe, and require a surgical operation or another radiological procedure to stop it.
- Occasionally there may be infection in the kidney, or in the space around it. This can generally be treated satisfactorily with antibiotics.
- Despite these possible complications, the procedure is normally very safe and will almost certainly result in a great improvement in your medical condition. Very occasionally, an operation is needed; but if the percutaneous Nephrostomy had not been attempted, then this operation would have been necessary anyway.

Important

If you have any allergies, you must let your doctor know. If you have previously reacted to intravenous contrast medium, the dye used for kidney X-rays and CT scanning, then you must also tell your doctor about this.

Will I be given an anaesthetic or sedation?

You will be given a local anaesthetic and maybe sedation. Local anaesthesia is drug-induced numbness: it may be provided by an anaesthetist, surgeon or other healthcare professional, depending on the technique used. Sedation will make you slightly drowsy and relaxed. You will not be fully unconscious. The drugs used in sedation may affect your memory or concentration for up to 24 hours. Many patients remember nothing about the procedure or even what the doctor has said to them afterwards.

Unfortunately, local anaesthesia and sedation can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain.

Complications are very rare, but can cause lasting injury. Like all medicines, local anaesthetics may sometimes cause side effects, as well as the effects that are needed. You may experience dizziness, blurred vision, drowsiness and occasionally loss of consciousness. Serious side effects are rare, and include fits, low blood pressure, slowed breathing and changes in heartbeat, which may be life-threatening.

If you are worried about any of these risks, please speak to your Consultant or a member of their team before you are due to have this treatment.

Getting ready for your percutaneous nephrostomy

You need to be an inpatient in the hospital.

- You will probably be asked not to eat for four hours beforehand, though you may be allowed to drink some water.
- You may be given a sedative to relieve anxiety, as well as an antibiotic.
- You will be asked to put on a hospital gown.

If you have any allergies, you **must** let your doctor know. If you have previously reacted to intravenous contrast medium (the dye used for kidney X-rays and CT scanning), then you must also tell your doctor about this.

The procedure

The procedure will take place in the Interventional Theatres located within the main theatres complex, in a special "screening" room that has been adapted for specialised procedures. However, it may be done in an operating theatre, using mobile X-ray equipment or a portable ultrasound scanner.

A specially trained doctor called a Interventional Radiologist will carry out this procedure. Radiologists have special expertise in using X-ray equipment, and also in interpreting the images produced. They need to look at these images while carrying out the procedure.

You will lie on the X-ray table, generally flat on your stomach, or nearly flat. You need to have a needle put into a vein in your arm, so that the Interventional radiologist can give you a sedative or painkillers. Once in place, this needle does not cause any pain.

You will also have a monitoring device attached to your chest and finger, and will probably receive oxygen through small tubes in your nose.

The Interventional Radiologist will keep everything sterile, and will wear a theatre gown and operating gloves. Your skin will be cleaned with antiseptic, and then most of the rest of your body covered with a theatre towel.

The Interventional Radiologist will use the X-ray equipment or the ultrasound machine to decide on the most suitable point for inserting the fine plastic tube (catheter), usually in your back, just below your twelfth rib. Then your skin will be anaesthetised with local anaesthetic, and a fine needle inserted into the kidney.

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, which then enables the plastic catheter to be positioned correctly. This catheter will then be fixed to the skin surface, and attached to a drainage bag.

Will it hurt?

Unfortunately, it may hurt a little, for a very short period of time, but any pain you have should be controlled with painkillers.

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. Later, you may be aware of the needle and then the catheter passing into the kidney, and sometimes this is painful, especially if the kidney was sore to start with.

There will be a nurse, or another member of clinical staff, standing next to you and looking after you. If the procedure does become painful for you, then they will be able to arrange for you to have more painkillers through the needle in your arm. Generally, placing the catheter in the kidney only takes a short time, and once in place it should not hurt at all.

How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. It may be over in 20 minutes, or very occasionally it may take longer than 90 minutes. As a guide, expect to be in the IR theatres department for about an hour altogether.

After the procedure

After the Procedure You will be taken back to Theatre Admission Unit (TAU) for a few hours. Nurses here will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. You will generally stay in bed for a few hours, until you have recovered.

The drainage catheter stays in place in your body for the time being, and will be attached to a collection bag. You will be able to carry on a normal life with the catheter in place. However, it is important that you try not to make any sudden movements, for example getting up out of a chair, without remembering about the bag, and making sure that it can move freely with you. The bag needs to be emptied fairly frequently, so that it does not become too heavy, but the nurses will want to measure the amount in it each time.

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

These are questions that only the doctors looking after you can answer. It may only need to stay in a short time, for example while a stone passes naturally, or it may need to stay in for a much longer period, to allow a more permanent solution for the blockage to be organised. Taking the catheter out does not hurt at all.

Results

You will be told at the time of the procedure if it has been successful or not.

Feedback

Your feedback is important to us and helps us influence care in the future

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

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