

Percutaneous Nephrostomy (PCN) catheter exchange

Percutaneous Nephrostomy (PCN) Catheter Exchange

Patient Information

Interventional Radiology Suite - RAEI

- Author ID: CO
- Leaflet Ref: X-Ray 010
- Version: 3
- Leaflet title: Percutaneous Nephrostomy (PCN) Catheter Exchange
- Date Produced: June 2025
- Expiry Date: June 2027

Introduction

This leaflet tells you about the procedure known as Percutaneous Nephrostomy (PCN) Catheter Exchange. It explains what is involved and what the possible risks are. It is not meant to be a substitute for an informed discussion between you and your doctor but can act as a starting point for such a discussion.

This procedure will be performed in the X-ray Department

The X-ray Department is also known as the Radiology or Imaging Department. It is the facility in the hospital where Radiological examinations of patients are carried out. These examinations use a range of X-ray equipment, such as a Computed Tomography (CT) scanner, an ultrasound machine, or a Magnetic Resonance (MR) Imaging scanner.

Radiologists are doctors specially trained to interpret images, they can also carry out more complex examinations. Radiologists are supported by Radiographers, who are trained to take X-rays and perform other imaging procedures, and Nurses, who are trained to care for patients having radiological procedures.

What is a PCN exchange?

A PCN Catheter Exchange is when the drainage tube that is in your kidney is changed for a new one.

Why do I need a PCN exchange?

PCN tubes are changed every 3 months as the drainage tube can become blocked over time. This change of the tube will help to keep the urine draining from your kidney and prevent infection.

Your District Nursing Team will continue to care for your tube and drainage bag, once you have had your tube changed.

Where will the procedure take place?

It will take place in the X-ray Department, in a room that is adapted for specialist procedures.

Who will be performing the PCN exchange?

An Interventional Radiologist will usually do the procedure, but some Advanced Practice Radiographers are trained to perform this procedure. These practitioners have special expertise in using specialist equipment and performing these types of procedure. The practitioner will use the images to conduct the procedure.

Do I need to stay in hospital overnight?

No, unlike the initial insertion of the PCN tube, an overnight stay is not necessary. You will only need to recover for 1 hour after the procedure. You will be offered something to eat and drink, and if you are feeling well, you can go home.

How can I prepare for my procedure?

You will have been advised of the date, time and location of where to report to.

You will be asked not to eat for four hours beforehand but are able to take sips of water.

You do not need to stop any medications for this procedure.

Once you arrive at the hospital:

You will be given a single dose of antibiotics; this will be administered through a cannula (a thin plastic tube that is inserted into your vein) or in tablet form to protect you from infection.

What actually happens during the procedure?

You will be taken to the X-ray Department and into the Interventional Radiology Suite. You will be asked various questions by a team member; the Radiologist / Radiographer will discuss the procedure with you in full and explain the associated risks and complications. This is an opportunity for you to ask any questions you may have.

You will be asked to get onto the X-ray table; usually you will be asked to lie on your stomach. However, your position on the table may be determined by the location of your PCN tube. Your skin and the tube will be cleaned with a cold antiseptic solution and a sterile drape will be placed over your body.

A thin wire will be passed through your existing PCN tube and into your kidney. This allows the tube to be removed and a new one to be passed over the wire and be positioned correctly.

The contrast agent will be injected through the PCN tube and X-rays will be used to check if the tube is in the correct position in your kidney.

Once the new PCN tube is inserted, it will be 'locked' in place, and a new drainage bag will be attached.

During the procedure, you may experience slight pushing in your kidney, but generally the procedure is not painful. A Radiology Nurse will be looking after you throughout the procedure.

How long will the procedure take?

Usually, the procedure takes around 30 minutes; however, it can vary from patient to patient.

What happens after the procedure is done?

You will be transferred back to the ward.

You will be given something to eat and drink, and if you are feeling well and your observations are stable, you will be allowed to go home.

Once you are discharged, it is important you continue to take care of the PCN tube and drainage bag.

Your bag will still need to be emptied regularly, so that it does not become too heavy and cause irritation to the PCN tube or the skin.

If you normally have a District Nurse to come and change the drainage bags, they will continue to do so.

It is important to ensure you continue to drink at least 3 litres of fluid daily, this will help to stop the urine becoming too concentrated and blocking the tube.

If you experience a high temperature, back pain, redness, swelling around the tube, leakage of urine from the drainage site, or if your tube falls out, you should contact the radiology team on the number provided in this leaflet for advice.

What are the risks or complications of the procedure?

With any procedure complications are possible. The possibility of you experiencing any of the risks or complications varies but these will be discussed with you before the procedure.

The urine may be blood stained immediately following the procedure; this is normal and will clear up.

Very rarely the procedure can cause damage to the kidney.

How long will does the PCN tube need to stay in for?

Your Consultant will decide how long your PCN needs to stay in place, as this differs from patient to patient.

The X-ray Department will send you an appointment every 3 months for you to attend hospital to have your tube changed.

This will continue until the tube is no longer needed.

Safety

X-rays are a type of radiation. We are all exposed to natural background radiation every day; this comes from the sun, the food we eat, and the ground. Being exposed to X-rays carries a small risk, but your Consultant feels that this risk is outweighed by the benefits of having this procedure. We take all safeguards to minimise the amount of X-rays you receive.

Information for patients between the ages of 12 and 55

The risks of radiation are slightly higher for an unborn child so you will be asked to confirm that you are not pregnant before the examination can proceed.

This applies to all patients whether you are male or female.

If there is a chance you may be pregnant, please let a member of staff know at the earliest opportunity or contact the Interventional Radiology Team on 0300 700 8713 (this is the direct phone number for Interventional Radiology where your procedure will be performed). The department is open Monday to Friday 8.30am to 5pm.

Finally

Some of your questions should have been answered by this leaflet but remember that this is only a starting point for discussion about your treatment 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.



Version number: **3**
Last modified date: **03rd July 2026**

All rights reserved © 2026
WWL Teaching Hospitals NHS Foundation Trust