

Radiological Insertion of a Nephrostomy and Ureteric Stent

An information guide



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Introduction

The aim of this leaflet is to provide you with information to help you understand more about having your nephrostomy tube/ ureteric stent inserted.

It explains what is involved and the possible risks. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions.

If you have any questions about the procedure please ask the doctor who has referred you or the department which is going to perform it.

What is a nephrostomy?

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

Why do you need a nephrostomy?

The most common reason for having a nephrostomy is 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 become damaged.

A nephrostomy drainage will relieve the symptoms of blockage and keep the kidney working.

What is a ureteric stent?

A ureteric stent is a plastic tube placed inside the ureter which will allow the urine to pass in the normal way from the kidney into the bladder.

The stent is used to bypass any obstructions to the flow of urine into the bladder and this is done either at the same time as having the nephrostomy or at a later date.

What are the benefits and risks?

Nephrostomy and ureteric stent insertions are very safe procedures but as with any medical procedure, there are some risks and complications that can arise.

Benefits:

- Inserting a nephrostomy or ureteric stent will allow urine to flow from the kidney again and allow the kidney to function normally.

Risks:

- Following a nephrostomy/ureteric stent insertion, the main risk is bleeding from the kidney. It is common for the urine to be bloody immediately after the procedure. This usually clears over the next 24 to 48 hours. On rare occasions, the bleeding may be more severe and require a transfusion. Very rarely, the bleeding may require another surgical procedure to stop it.
- Any procedure where the skin is penetrated carries a risk of infection. The chance of an infection occurring which is caused by having the procedure is less than one in 1000. You will be given antibiotics before the procedure as a precaution.

- 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 or the ureteric stent from the kidney to the bladder. If this happens, you may require a small operation to overcome the blockage or a repeat procedure.
- Following a ureteric stent insertion, the bladder may be irritated by the stent causing you to pass urine more frequently and in smaller amounts. This can be treated with medication.
- The nephrostomy tube or stent may eventually become blocked and if you notice that the volume of urine you are passing becomes much less than when they were first inserted, please contact your consultant's secretary via the hospital switchboard (0161 795 4567).

Despite these possible complications, the procedure is normally very safe and will almost certainly result in an improvement in your medical condition.

Who has made the decision?

The consultant in charge of your care and the interventional radiologist performing the procedure have discussed your case and feel that this is the best option for you.

However, you will also have the opportunity for your opinion to be considered and if after discussion with your doctors, you no longer want the procedure, you can decide against it.

Are you required to make any special preparations?

A percutaneous nephrostomy is usually carried out under local anaesthetic.

You may be asked not to eat for **six hours** before the procedure, although you may still drink clear fluid such as water until **two hours** before the procedure.

You may receive a sedative to relieve anxiety, as well as an antibiotic and a pain-relieving drug.

If you have any allergies or have previously had a reaction to the x-ray 'dye' (contrast agent) used in the radiology department, you **must tell** the radiology staff before you have the procedure.

Where will the procedure take place?

The procedure will take place in the intervention room within the radiology department. This is similar to an operating theatre in which x-ray equipment has been installed.

Who will see you?

You will be seen by a specially trained team led by an interventional radiologist (a doctor) and including radiology nurses and radiographers.

Interventional radiologists have expertise in reading x-rays and ultrasound images and using those images to guide them in the diagnosis and treatment of some medical conditions.

What happens during the procedure?

Whilst on the hospital ward you will be asked to change into a hospital gown. A small cannula (thin tube) will be placed into a vein in your arm through which antibiotics and a pain relieving drug will be given.

You will be taken to the radiology department where the staff will introduce themselves and check your details.

The interventional radiologist will ask you to confirm that you have already had the procedure explained to you and will ask you to sign the final part of the consent form.

Please feel free to ask any questions and remember that even at this stage, you can decide not to go ahead with the procedure if you so wish.

You will lie on the x-ray couch, usually flat on your stomach. You will have a monitoring device attached to your finger to check your pulse and a blood pressure cuff around your arm.

You may be given oxygen through a small tube placed into your nostrils. The radiology nurse may give you further pain relieving drugs and also a sedative if you feel you need them.

A nephrostomy or ureteric stent insertion is performed under sterile conditions and the interventional radiologist and the radiology nurse will wear sterile gowns and gloves.

Nephrostomy

Your skin will be cleaned with antiseptic and you will be covered with sterile drapes. A small area of skin on your back will be numbed using local anaesthetic.

The radiologist will use an ultrasound machine and x-ray equipment to guide him in placing a small plastic tube (nephrostomy tube) into the kidney. The nephrostomy tube will be 'locked' in position so that it can't accidentally fall out.

An adhesive drainage bag will be fixed to your skin to collect the urine. This bag can be emptied through a tap (or bung) at the bottom.

Ureteric Stent

You will already have a nephrostomy inserted before your ureteric stent procedure. For this you will be asked to lie on the x-ray couch and local anaesthetic will be used.

The ureteric stent will be inserted via the hole already made for the nephrostomy. This will feel some sensation in the bladder and pushing and pulling at the nephrostomy site.

The nephrostomy will remain in for a few days when it will be checked again in the x-ray department. If the stent is working well, the nephrostomy will be removed, leaving the stent in place.

Once the nephrostomy has been removed, there will no longer be a need for the drainage bag as the urine will pass into the bladder through the stent.

Will it hurt?

Unfortunately, it may hurt a little for a short period of time but painkillers will be on hand should you need them. Local anaesthetic will sting for a short while before it takes effect.

You may be aware of the nephrostomy tube passing into the kidney, and sometimes this is painful, especially if the kidney was sore to start with.

Once the nephrostomy tube is in place and everything has settled down, there may be mild discomfort or none at all.

If a ureteric stent is being inserted, you may feel some irritation in the bladder during the procedure but this soon wears off and there is usually little or no irritation at all from the stent once it is in place.

If you do experience irritation which does not clear up after a few days, speak to your doctor as this can be treated with medication.

Once you are home, there is the possibility of bladder irritation but apart from this you are very unlikely to experience pain from the ureteric stent. A nephrostomy tube rarely causes pain once things have settled, usually after a couple of days, but it may feel a little uncomfortable.

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 an hour. If both kidneys or ureters are affected then this will take longer.

What happens afterwards?

You will move back onto your trolley and be taken back to the ward, where nursing staff will carry out routine observations such as blood pressure and pulse checks.

You will stay in bed for a few hours. The drainage bag can be emptied as required and you will be able to carry on normally with the catheter and bag in place. You will probably have an overnight stay in hospital afterwards. The nursing staff on the ward will show you how to care for the bag and how to empty it.

If your doctors decide that you can go home with the nephrostomy tube in, district nurses will be arranged to periodically change the bag for you.

Patients with long term nephrostomies are recalled to the radiology department every three or four months to have the tube changed. Changing the tube is much quicker and simpler than having the first tube inserted and is carried out as a day case procedure.

Ureteric stents can stay in for three to six months and these are changed in the operating theatres using a small 'telescope' passed into the bladder. Again this is usually done as a day case.

Is there anything I should look out for?

If the nephrostomy tube stops draining, it may have become blocked.

Please contact your consultant's secretary and she will arrange for you to come into hospital to have it cleared or changed. (Telephone the hospital switchboard (0161 795 4567) and ask for your consultant's secretary).

If you experience bladder irritation which causes you to pass urine more often and in smaller amounts, and which does not clear up after a few days, speak to your doctor as this can be treated with medication.

How long will the tube stay in?

This is a question that can only be answered by the hospital doctors looking after you. It may be for a short time until a stone has passed or it may have to stay in much longer.

Further Information

More information is available on the British Society of Interventional Radiology website; www.bsir.org/patients/nephrostomy.

Your specialist consultant, who has requested this procedure for you, will probably have already explained the reasons why you need to have this done and we hope that this information guide has also been useful to you also. However, if you are still uncertain, then please contact your consultant's secretary via the hospital switchboard.

If you are in hospital at the moment, then ask a nurse to put you in contact with your consultant or a member of his / her team for further clarification.

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. Please use the space on the next page to write any questions that you may have.

Notes

If English is not your first language and you need help, please contact the Interpretation and Translation Service

Jeśli angielski nie jest twoim pierwszym językiem i potrzebujesz pomocy, skontaktuj się z działem tłumaczeń ustnych i pisemnych

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