Mersey and West Lancashire Teaching Hospitals
NHS Trust

# Having a Percutaneous Nephrostomy

## Patient information leaflet

**If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.**

اگر به این بروشور به زبان دیگر یا در قالب دسترس‌پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

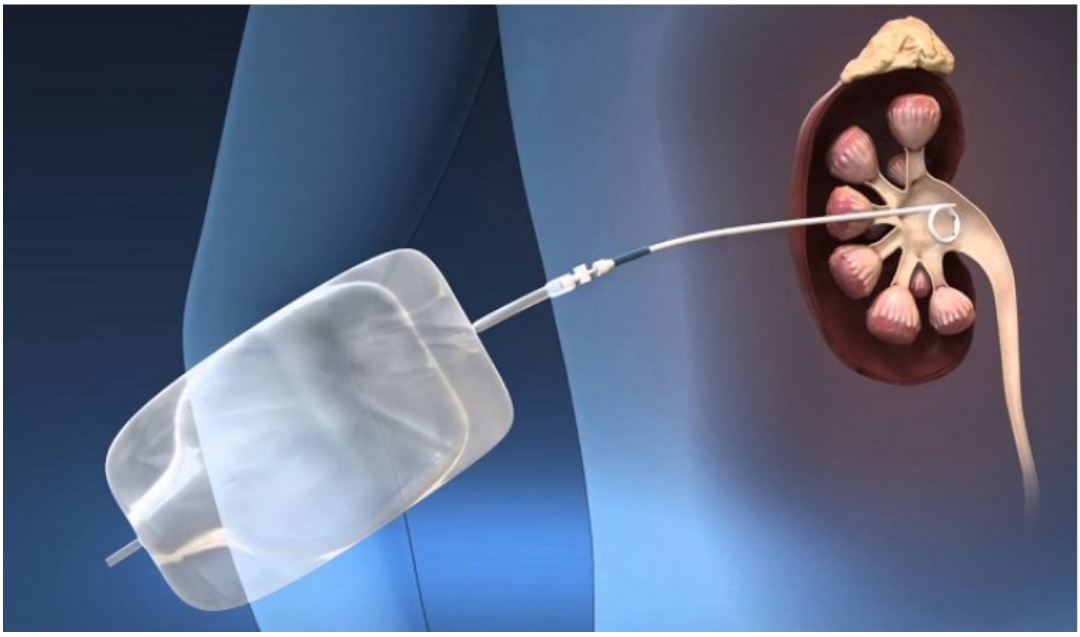
如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أُخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

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## Introduction

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 be a substitute for informed discussion between you and your doctor, but can act as a starting point for such a discussion. Whether you are having the procedure as planned or as an emergency procedure you should have sufficient explanation before you sign the consent form.



## What is a Percutaneous Nephrostomy?

A Nephrostomy is a procedure in which a fine plastic tube (catheter) is placed through the skin into your kidney to drain your urine. The urine is collected in an attached drainage bag.

## Why do I 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.

## Who will be doing the procedure?

An interventional radiologist, a doctor who specialises in such procedures, assisted throughout the procedure by Radiology nurses and Radiographers, will perform the procedure. As the procedure happens in the interventional theatre all members of staff will be dressed in scrub tops. All members of staff will introduce themselves before the start of the procedure.



## How do I prepare for the procedure?

You will have some blood tests performed beforehand to check that you do not have an increased risk of bleeding. If you are taking any blood thinning medications, you will be given instructions when to stop these before your procedure.

## Where is the procedure performed?

The procedure will take place in the Radiology Department in a special “screening room” designed specially for this type of procedure.



## Who has made the decision?

The urology 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. 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 there any special preparations?

A percutaneous Nephrostomy is usually carried out as a day case procedure under local anaesthetic. You may be asked not to eat for 4 hours before the procedure, although you may still drink clear fluids such as water. If you have any allergies or have previously had a reaction to the dye (contrast agent), you must tell the Radiology staff before you have the test.

## What happens during the procedure?

You will be asked to get undressed and put on a hospital gown. A small cannula (thin tube) will be placed into a vein in your arm. You will lie on the X-ray table, generally flat, or nearly flat on your stomach. Occasionally a cushion is placed under your stomach. The radiologist may give you a sedative, painkillers or antibiotics through a cannula in your arm or hand.

You will have monitoring devices attached to your chest and finger. A Nephrostomy is performed under sterile conditions and the interventional radiologist and Radiology nurse will wear sterile gowns and gloves to carry out the procedure. Your skin will be cleaned with antiseptic and you will be covered with sterile drapes. The skin overlying the puncture site will be numbed with local anaesthetic.

The interventional radiologist will use an ultrasound probe and the X-ray equipment to place a fine needle accurately into the kidney. When happy with the position, a guide wire will be inserted to allow the small plastic tube (catheter) to be placed. This catheter will then be sutured and then 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 for a short while, but this soon wears off. Later, you may be aware of the needle and the catheter passing into the kidney and sometimes this is painful, especially if the kidney was sore to begin with.

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

# Risks

## Are there any risks?

Nephrostomy is a very safe procedure, but as with any medical procedure there are some risks and complications that can arise. 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 hrs. On rare occasions, the bleeding may be more severe and require a transfusion. Very rarely the bleeding may require another surgical operation or radiological procedure to stop it.

The urine in the kidney may be infected. This can generally be treated with antibiotics, but occasionally you can feel unwell after the procedure. 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. If this happens, you may require a small operation to overcome the blockage or a repeat procedure. Despite these possible complications, the procedure is normally very safe and will almost certainly result in a great improvement in your medical condition.

## Pregnancy

If you are, or think you could be pregnant, please contact us prior to your appointment on the phone number in your appointment letter.

## Radiation

Having a percutaneous Nephrostomy involves the use of radiation. Any examination using radiation is only performed when strictly necessary and it is thought that benefits of the examination outweigh any potential risks.

All imaging is performed using the minimum amount of radiation necessary, and is individualised for each patient depending on the size of the patient and the condition being investigated.

For more information on radiation please see the link below:
https://www.ukhsa-protectionservices.org.uk/radiationandyou/

## Injection of X-ray contrast (dye)

**If you have had an allergic reaction to iodine or the X-ray contrast (dye) in the past, then you must tell us prior to, or on arrival for, your appointment.**

The contrast (dye) used during the procedure contains iodine. There are risk factors associated with injections of X-ray contrast (dye), which can be increased by certain conditions. We will complete a safety questionnaire to check your suitability to have the X-ray contrast (dye).

The risk of serious allergic reaction to contrast materials that contain iodine is extremely rare, and Radiology Departments are well equipped to deal with them. The injection usually causes nothing more than a warm feeling passing around your body, a metallic taste in your mouth and a sensation of passing water. These effects will pass within a few minutes.

**Table 1: Types of allergic reaction to Contrast (X-ray Dye)**

| Category | Type |
|---|---|
| Mild | Minor rash, redness,<br>Swelling of the skin,<br>Mild nasal congestion, sneezing, runny nose.<br>Mild high blood pressure, nausea,<br>Mild vomiting. |
| Moderate | Generalised redness<br>Marked rash,<br>Itching, and swelling of the skin,<br>Hoarseness or throat tightness,<br>Fainting<br>Swelling of face and throat. |
| Severe | Respiratory arrest<br>Cardiac arrest<br>Fluid on the lung<br>Seizures<br>Cardiogenic shock<br>The risk of death is extremely rare. |

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## 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.

## What happens afterwards?

You will be taken back to your ward. Nursing staff will carry out routine observations including pulse and blood pressure and will also check the treatment site. You will generally stay in bed for a few hours, until you have recovered.

The Nephrostomy catheter remains 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. The bag needs to be emptied fairly frequently so that it does not become too heavy, but the nurses may wish to measure the amount in it each time.

## How long will it stay in?

This is a question that can only be answered by the doctors looking after you. 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. Nephrostomy catheters are exchanged every 12 weeks, Radiology will organise this for you. Removal of the Nephrostomy catheter does not hurt at all.

## Finally

The pictures taken during the examination are studied carefully and a detailed report is produced. The results will be sent to the person who referred you for the test. They will discuss the results with you and any treatment you may need.

You may already have an appointment with the team who referred you. If not, please contact them to arrange one to discuss the results of this test.

If you have any further questions, please do not hesitate to call the Radiology Department via the number given on your appointment letter.

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As this is a teaching hospital there may be students and observers present during your examination as part of their ongoing training. Please let the staff know if you do not wish any students to be present during your attendance.

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