

# Removal of kidney stones

## Urology Department

### Patient Information Leaflet

#### Introduction

This leaflet is about removing kidney stones using an ureteroscope (a type of telescope). It gives information on what the procedure involves, the benefits and risks of the procedure and what happens after it.

We hope that this leaflet answers questions that you may have about your procedure. However, if you would like more detailed information, please contact one of our urology clinical nurse specialists.

#### What are kidney stones?

The waste products in the blood can occasionally form crystals that collect inside the kidneys. Over time, the crystals may build up to form a hard stone-like lump.

#### What are the benefits of this procedure?

This procedure is good for removing kidney stones that are too big to pass out of the body on their own, particularly if they are stuck in your ureter. The ureter is the tube that allows urine to drain from the kidneys into the bladder.

Kidney stones can be very painful so once they have been removed, this pain should go.

#### What are the risks?

All surgical procedures have some risks and it is important that we make you aware of these. The risks of this operation are:

##### Common risks

- Mild burning or bleeding on passing urine for a short period after the operation
- Temporary insertion of a bladder catheter (a fine tube used to collect urine so it can drain into a bag)
- Insertion of a stent with a further procedure needed to remove it
- The stent may cause discomfort, the need to pass urine more frequently or bleeding in the urine

## Occasional risks

- The surgeon cannot get the stone out, or the stone moves back into the kidney
- Kidney damage which may need further treatment
- Infection which may need treatment with antibiotics
- Failure to pass the telescope if the ureter is narrow
- Fragments of the stones may be left in the ureter
- New stones may form

## Rare risks

- Damage to the ureter requiring open surgery to repair it, or placement of a tube into the kidney from the back to allow any leak to heal
- Very rarely, scarring or narrowing of the ureter which will need further treatment

**Female patients – as the procedure includes an X-ray, you must tell us if you are or might be pregnant before you attend for your procedure. If you are not sure, we will offer you a pregnancy test.**

## What are the alternatives?

This will depend on the size of your kidney stone(s) and where they are. Therefore, you will need to discuss possible alternatives with your urology consultant. It is your decision as to whether you have this procedure.

## What happens before the procedure?

You will need to come to hospital the day of your surgery. Your admission letter will contain the date and any instructions you must follow before your operation.

If you are taking warfarin, aspirin or clopidogrel (Plavix ®) on a regular basis, you must discuss this with your consultant because these drugs can cause increased bleeding after surgery. There may be a balance of risk where stopping them will reduce the chances of bleeding, but this can result in increased clotting which may also carry a risk to your health. Therefore, the risks and benefits of this will be discussed with you before your operation. We will tell you when you can safely start taking these medications again before you leave hospital.

If you smoke, try to cut down or preferably stop, as this reduces the risks of heart and lung complications during and after the operation. If you would like help with stopping smoking, please contact a member of the Hospital Stop Smoking Team on 01384 456111 ext. 2783.

**Your admission letter will contain guidance about when you can eat and drink before your operation.** You will be asked not to eat for six hours before surgery. You will be able to drink clear fluids until two hours before your operation. Clear fluids include water, black tea and coffee and squash. The ward staff will give you more specific guidance on when you can eat and drink when you come to hospital on the day of your operation.

## Pre-assessment

Before you have your operation, we will send you an appointment for pre-assessment. This is to assess your general fitness and to determine whether there are any reasons why you should not have the operation.

At this assessment, a range of investigations will be carried out such as:

- A blood test, if you take certain medications.
- You may have an ECG – a heart trace test. This is nothing to be alarmed about, just a routine test to check your heart.
- Your blood pressure, pulse and weight will be recorded.
- You will be screened for MRSA – a nasal and groin swab will be taken to see if you have any evidence of infection.
- A finger prick test to check your blood glucose levels.

You will have the opportunity to ask any questions or discuss any problems you may have.

At this assessment, please tell us if:

- You are diabetic
- You have a cold, cough or any type of infection
- You take any medications and what these are. You may need to stop taking some of these for a short period of time before you have the procedure.

Please be sure to tell your consultant before the procedure if you have any of the following:

- An artificial heart valve
- A coronary artery stent
- A heart pacemaker or defibrillator
- An artificial joint
- An artificial blood vessel graft
- A brain shunt
- Anything else that has been implanted such as metal pins
- A previous or current MRSA infection
- You have received a cornea transplant, a dural transplant in the brain or previous injections of human-derived growth hormone, as these can be associated with Creutzfeldt-Jakob Disease (CJD)

## Giving consent

We will explain the procedure to you and check that you understand what is to be done. If you are happy to go ahead, we will ask you to sign a consent form giving permission for the procedure to take place. Please ensure that you have discussed any concerns and asked any questions you may have, before signing the form.

## What happens during the procedure?

Normally, we use a full general anaesthetic where you will be asleep throughout the procedure. Your anaesthetist will explain the anaesthetic options to you before your surgery. We may give you antibiotics by injection before the procedure. Therefore, please remember to tell your hospital doctor if you are allergic to any antibiotics.

The doctor carrying out the procedure uses an ureteroscope. This is a long, thin telescope with a camera on the end. The telescope is passed up the urethra which is the tube that urine passes down from your bladder and out of your body. Under X-ray screening, a flexible guide wire is inserted into the affected ureter up to the kidney (see figure 1).

A longer telescope (either rigid or flexible) is then inserted into the ureter and passed up to the kidney. The stone is broken up using an instrument or a laser, and the fragments are taken out using a special collection device. A temporary ureteric stent (a soft plastic tube) is normally left in place between the kidney and the bladder after the procedure, together with a bladder catheter (a fine tube).

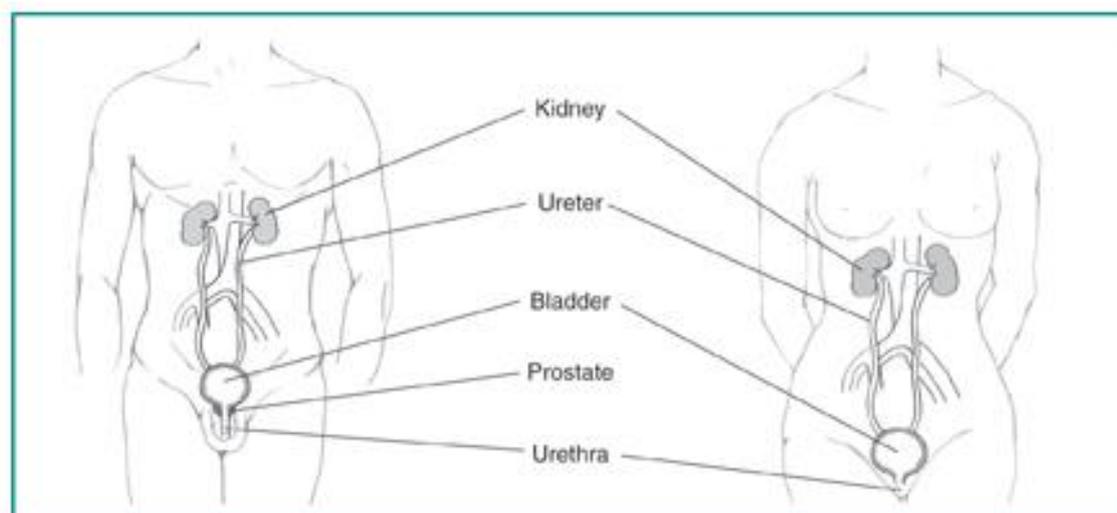


Figure 1 shows the urinary system

## What happens after the operation?

After your operation, you will normally go back to the urology ward. We will tell you how the procedure went and what you can and cannot do. You should:

- Let the staff know if you are in any discomfort.
- Feel free to ask any questions or discuss any concerns with the ward staff and members of the surgical team.
- Ensure that you are clear about what has been done and what should happen next.

We will give you a drink as soon as you recover from the anaesthetic. We will encourage you to move around as soon as you are comfortable, to help to prevent blood clots forming in your legs. The catheter will need to remain in place for up to 10 to 14 days to allow time for the bladder to heal.

A bladder catheter (a fine tube) is sometimes inserted during the operation to monitor urine output. This is usually removed later in the day.

An X-ray is sometimes performed to check if any stone fragments are left.

You can usually go home on the day of your operation. If the stone is higher in your urinary tract, it may be necessary for you to stay overnight. Your surgeon will inform you when you are likely to be able to go home after your operation. **Please make arrangements to have a lift home available.**

## What happens when I leave hospital?

When you leave hospital, we will give you a summary of your operation, known as a discharge summary. This holds important information about your operation. If you need to call your GP for any reason or to go to another hospital, please take this summary with you to allow the doctors to see details of your treatment. This is particularly important if you need to consult another doctor within a few days of leaving hospital.

## What should I expect when I get home?

When you get home, you should drink twice as much fluid as you normally do to flush your system through. This helps to minimise any bleeding.

You may experience pain in the kidney over the first 24 to 72 hours, due to the stent. If you have this, you may need to take medication to help to relieve it – please contact the ward or clinical nurse specialist to discuss this. Paracetamol or other painkillers will help this pain if you can take them (always read the label; do not exceed the recommended dose). This pain normally settles after 72 hours.

Try to avoid using your stomach muscles too much when you are passing urine as it can cause urine to be forced back up to the kidney which will be painful.

## When can I go back to work?

It will take at least 10 days to recover fully from the operation. You will probably need to take a week off work.

## Driving after surgery

It is your responsibility to ensure that you are fit to drive after your surgery. You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than three months after your surgery and that may affect your ability to drive. However, you should check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.

## What should I look out for?

If you get any of the following, contact your GP immediately:

- A fever (high temperature)
- Severe pain on passing urine
- Any bleeding gets worse
- If small blood clots or stone fragments pass down the ureter from your kidney and cause stomach pains

## What else do I need to know?

If you have a stent inserted, we will let you know before you leave hospital when it should be removed. These are usually removed in the Flexible Cystoscopy Clinic using a local anaesthetic.

You may be able to help prevent yourself from getting kidney stones in the future by changing your diet. Please ask your consultant for further details about this.

## Medication

Please make sure before you come into hospital you have enough of your regular medication to take when you get home as it is unlikely that your regular medication will be changed. Also, please make sure you have a supply of painkillers to take when you get home. We recommend paracetamol, if you can take it or your usual painkillers (always read the label; do not exceed the recommended dose).

Getting medication from the hospital pharmacy can sometimes take a long time as they are very busy and this will delay you leaving hospital.

## Can I find out more?

You can find out more from the following weblink:

### NHS Choices

<http://www.nhs.uk/Conditions/Kidney-stones/Pages/Introduction.aspx>

## Contact information for urology clinical nurse specialists

If you have any questions, you would like more information, or if there is anything you do not understand about this leaflet, please contact:

Urology clinical nurse specialists on 01384 456111 ext. 2873 or mobile 07787 512834 (8am to 4pm, Monday to Friday)

Ward C6 on 01384 244282

Russells Hall Hospital switchboard number: 01384 456111

### This leaflet can be downloaded or printed from:

<http://dudleygroup.nhs.uk/services-and-wards/urology/>

If you have any feedback on this patient information leaflet, please email [patient.information@dgh.nhs.uk](mailto:patient.information@dgh.nhs.uk)

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

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Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru vă rugăm să sunați la 0800 073 0510.

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