Ureteroscopy, ureterorenoscopy and retrograde studies

This leaflet explains more about ureteroscopy procedures, including the benefits, risks and any alternatives and what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you.

What is ureteroscopy/ureterorenoscopy (URS)?

The urinary system is made up of the:

- kidneys
- ureters (tubes that run from the kidneys to the bladder)
- bladder
- urethra (the tube that runs from your bladder and carries the urine out of your body).

A ureteroscopy is a procedure that looks in to the ureter and the kidney.

It involves inserting a special telescope, called a ureteroscope, into the urethra and then passing it through to the bladder and then on into the ureter and kidney.

The operation is usually performed under general anaesthetic. This means that you are asleep during the procedure. There are risks associated with having a general anaesthetic, but they are small. Occasionally a spinal anaesthetic is used (where a needle is put in your back to numb you from the waist down) – your anaesthetist will discuss the type of anaesthetic you need with you.

The ureteroscope is about the thickness of a pencil and has a tiny camera on one end, so the doctor can see an image of your urinary system on a screen. The doctor can then make a diagnosis or see if a treatment has been successful. The ureteroscope can also be used to help the doctor access the kidney or ureter to treat kidney stones.

Why should I have a URS?

You have been advised by your doctor to have a ureteroscopy to try to find the cause of your symptoms, or to help treat problems.

A ureteroscopy is most commonly used to treat stone disease or cancers in the ureter.

A ureteroscopy can also help diagnose the cause of:

- abnormal cells in your urine
- blood in your urine (haematuria)
- back or loin pain.

What are the risks?

There are risks with all types of surgical procedures.

Your doctor will explain these risks to you in detail before you are asked to sign a consent form.

A ureteroscopy is usually carried out without any complications, but you will probably have some of the following after the operation:

Discomfort – you may feel a stinging sensation when you urinate, lasting a day or two. You may also have loin pain on the treated side for about 48 hours. Taking a normal pain-relief tablet as
prescribed may help. If the pain is very bad and lasts for more than a couple of days, please contact your specialist nurse.

**Bleeding** – it is normal to have a small amount of bleeding after the procedure. You may not have any, or you may find your urine is slightly pink for a few days after the procedure. Drink plenty of water (about three litres spaced out over 24 hours) to help clear your urine. If it remains pink after a few days, contact your GP or us, using the numbers on the back page.

**Infection** – a urine infection can cause a fever and pain when you pass urine. The risk of this can be reduced by drinking plenty of water after the procedure. You will also be given an injection of antibiotics as a precaution when you have your anaesthetic.

**Stent insertion** – sometimes a urinary stent needs to be inserted. This is a thin plastic tube that runs inside the ureter from the kidney to the bladder. It allows urine to drain more freely from the kidney into the bladder when you have a blockage such as a stone or a growth in the ureter.

**Difficulty in passing the telescope** – in some cases the ureter is too tight to allow the telescope to pass. This occurs in about one in 20 cases. To avoid damaging the ureter, you will have a stent inserted, and the procedure will be rebooked for about a month later. The stent widens the ureter, so the second procedure should be less difficult.

**Need for further procedures** – sometimes, if you have a large amount of stone, or if the stone is difficult to get at, you may need a further procedure to remove it. Your doctor will discuss this with you.

**Ureteric stricture** – the ureter can sometimes become narrowed after this procedure. This happens in less than one in 100 cases.

**Are there any alternatives?**

A ureteroscopy is the only way to have a close look at the upper urinary system to diagnose certain ureter and kidney conditions. There are other options to try and fragment and remove your stones which your doctor will discuss with you. These include a type of shock wave therapy to break up the stones into smaller fragments (ESWL) or an operation to remove larger volumes of stones, or stones that are located in hard to reach areas of the kidney (PCNL).

**How can I prepare for surgery?**

Smoking increases the risk of chest infection or deep vein thrombosis (DVT) and can delay wound healing. If you smoke, you may be asked to stop and if you would like help with this please speak to your nurse or call the NHS Smoking Helpline on 0800 169 0 169.

You will usually need to stop anti-coagulant medications such as warfarin, aspirin, clopidogrel and dipyridamole up to one week before surgery, but please discuss with your specialist. **Do not make any changes to your usual medicines, unless your specialist has told you to do so.**

When the date for your surgery is set you will be sent a pre-assessment appointment to assess your suitability and fitness for surgery and the anaesthetic. This usually takes place between two and four weeks before your operation. At the pre-assessment appointment you will also be able to ask any further questions you have before you come into hospital for the procedure. The pre-assessment appointment is an important appointment which you must come to. If you don’t, we may have to delay or cancel your surgery.

Because of the risk of infection following stone surgery, if you have an infection before the operation the surgery will be postponed. We will get a urine sample from you at least two weeks before your operation, to check on this and treat you in time if necessary.

If you think you may have an infection whilst waiting for your operation, contact the specialist nurse, Kristoffer Ohlin on 020 8725 0163 to arrange an appointment for a urine sample to be taken. If the urine sample confirms infection we will prescribe a suitable antibiotic.
Asking for your consent

It is important that you feel involved in decisions about your care. Before your surgery, you will be asked to sign a consent form to say that you agree to have the treatment and understand what it involves. You will be marked to identify which side your operation will be. This consent gives the consultant permission to operate on you and confirms that you understand what the procedure involves. If you do have any questions or concerns, please ask your doctor or nurse before you sign the consent form. You can withdraw your consent at any time, even if you have said ‘yes’ previously. If you would like more details about our consent process, please ask for a copy of our policy.

What are the arrangements for coming to hospital?

Your admission to hospital for your ureteroscopy will either be:

- onto a ward, usually the day before your operation
- via the surgical admissions lounge (SAL) on the day of your operation
- directly to the day surgery unit (DSU) on the day of your operation.

You will be told in advance, either at your pre-admission appointment or by letter, which one will apply to you.

If you are to be admitted to the ward, you will receive a telephone call on the morning of your admission to tell you which ward to come to. When you arrive at the ward you will be welcomed and shown to your bed by a nurse. You will need to have a shower on the morning of your operation.

If you are admitted via the surgical admissions lounge (SAL) or the day surgery unit (DSU), you will be given a SAL information leaflet at your pre-admission appointment and will be told when to stop eating and drinking before your operation. You should have a shower or bath at home before arriving at the hospital.

When you arrive in SAL or DSU, you will be welcomed and taken to a cubicle to change into a gown and elasticised stockings. These stockings help to reduce the possibility of clots (deep vein thrombosis or DVT) forming in your legs during surgery and should be worn throughout your hospital stay.

A nurse will also check your urine, blood pressure, temperature and pulse.

What happens during the operation?

You will be under general anaesthetic, which means you will be asleep throughout the operation. A thin telescope will be inserted through your urethra, into your bladder and up your ureter. If the doctor finds any abnormal looking tissue, samples (biopsies) may be taken and the area may be treated with a laser.

Any stones will either be taken out with a small basket or fragmented using the laser.

What happens after the operation?

You may be awake a minute or two after your operation is finished, but you probably won’t remember anything until you are back in your bed.

Because of the anaesthetic, you may feel or be sick up to 24 hours after the operation. We will give you some anti-sickness medication if this happens.

If you are not feeling sick, you will be encouraged to start drinking fluids as soon as possible, and to have a light meal as soon as you feel able to. You should be able to go home once you have recovered.
You will need someone to pick you up from hospital and look after you for the first 24 hours.

The anaesthetic may make you clumsy, slow and forgetful for about 24 hours.

Your reasoning, reflexes, judgment, coordination and skill can be affected for 48 hours after your operation, so you should rest for 48 hours and, for your safety, you **should not**:

- go to school or work
- drive any vehicle, including a bicycle
- operate any machinery
- attempt to cook, use sharp utensils or pour hot or boiling liquids
- drink alcohol
- smoke
- take sleeping tablets
- make any important decisions or sign any contracts.

**Contact the hospital if you have any of the following after you have left hospital:**

- large amounts of fresh blood in your urine (some bleeding is normal after the operation)
- excessive pain
- a temperature over 38°C (100.4F)
- difficulty passing urine.

**Will I feel any pain?**

For one to two days you may feel a stinging sensation when you urinate. Taking a normal pain-relieving tablet as prescribed may help. If the pain is severe and lasts for more than a couple of days, contact your specialist nurse. If you have had a stent inserted you may have symptoms as long as the stent is in place. For more information, see the stent information leaflet.

**Will I have a follow-up appointment?**

You will be seen by your urology team and given the initial results before leaving the hospital.

You will be contacted by a specialist nurse on the Monday after your surgery.

We will also send you a follow up appointment in the post and if a stent is inserted you will be contacted about removal or change of the stent.

If you haven’t received an appointment within six weeks, please contact the urology secretary on 020 8725 3305.

**Useful sources of information**

British Kidney Patient Association  
[http://www.britishkidney-pa.co.uk/patient-info](http://www.britishkidney-pa.co.uk/patient-info)

The British Association of Urological Surgeons (BAUS)  
[http://www.baus.org.uk/patients/conditions/6/kidney_stones](http://www.baus.org.uk/patients/conditions/6/kidney_stones)

**Contact us**

If you have any questions or concerns about urinary stones, surgery or if you’re feeling unwell, please contact Kristoffer Ohlin, clinical nurse specialist in urology on 020 8725 0163 (Monday to Friday, 9am to 5pm). You can also contact Kristoffer Ohlin through the bleep system by ringing 020 8672 1255 and bleeping 7456 or by email kristoffer.ohlin@stgeorges.nhs.uk

Out of hours please contact Vernon ward on 020 8725 3197.

For appointment or administrative enquiries, please contact the urology secretary on 020 8725 3305.
For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://www.stgeorges.nhs.uk)

**Additional services**

**Patient Advice and Liaison Service (PALS)**
PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9am and 5pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough Wing (near the lift foyer).

**Tel:** 020 8725 2453  **Email:** pals@stgeorges.nhs.uk

**NHS Choices**
NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

**Web:** [www.nhs.uk](http://www.nhs.uk)

**NHS 111**
You can call 111 when you need medical help fast but it’s not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

**Tel:** 111