

Urology Department

Surgical procedure information leaflet

Name of procedure: **Ureteroscopic stone removal**

It has been recommended that you have surgery to remove stones or fragments of stones in the ureter or kidney. It may involve placement of a soft plastic tube or stent between the kidney and the bladder. The procedure also includes cystoscopy (a procedure using a cystoscope to examine the inside of your bladder) and x-ray screening.



The surgeon will insert a telescope into the bladder through the water pipe (urethra). Under x-ray guidance, a flexible guidewire will be inserted into the tube that runs to the kidney (ureter), on the affected side. A longer telescope (rigid, pictured below, or flexible, pictured above) will then be inserted over the wire and passed up to the kidney to locate the stone(s).

The stone(s) will be disintegrated using a mechanical probe or laser and the fragments extracted with special retrieval devices. A ureteric stent is normally left in place, together with a bladder catheter, after the procedure.

If a bladder catheter has been inserted, this will normally be removed on the day after surgery. You will be able to go home once you are passing urine normally. An x-ray is often done on the day after surgery to check on the presence of residual stone fragments.

If a stent has been inserted, we will let you know before you go home, when the stent needs to be removed. Ureteric stents are usually removed under local anaesthetic.

This leaflet explains some of the benefits, risks and alternatives to the operation. We want you to have an informed choice so you can make the right decision. Please ask your surgical team about anything you do not fully understand or want us to explain in more detail.

We recommend that you read this leaflet carefully. You and your doctor (or other appropriate health professional) will also need to record that you agree to have the procedure by signing a consent form, which your health professional will give you.

Benefits of the procedure

The aim of the procedure is to relieve symptoms by removing stones in the ureter or kidney.

Serious or frequent risks

Everything we do in life has risks. The general risks of surgery include problems with:

- breathing (for example, a chest infection);
- the heart (for example, abnormal rhythm or, occasionally, a heart attack); and
- blood clots (for example, in the legs or occasionally in the lung).
- Stroke
- Death

There are some risks associated with this type of surgery. Those specifically related to this procedure include:

Common - Greater than 1 in 10 (10%):

- Mild burning or bleeding on passing urine for short period after operation.
- Insertion of a stent with a further procedure to remove it.
- Stent symptoms – stents may cause pain, frequent urine passage and bleeding in the urine.
- Recurrence of stones in the future.

Occasional - Between 1 in 10 and 1 in 50 (2% - 10%):

- Failure - it may not be possible to retrieve the stone due to a narrow ureter, or stone displacement into an inaccessible site in the kidney.
- Kidney damage or infection needing further treatment.

Rare - Less than 1 in 50 (2%):

- Damage to the ureter, with need for an open operation or tube placed into kidney directly from back (nephrostomy) to allow any leak to heal.
- Scarring or stricture of the ureter needing further procedures to widen it.

Hospital-acquired infection

- Colonisation with MRSA (0.9% - 1 in 110).
- MRSA bloodstream infection (0.02% - 1 in 5000).
- Clostridium difficile bowel infection (0.01% - 1 in 10,000).

The rates for hospital-acquired infection may be greater in high-risk patients, for example those patients

- with long-term drainage tubes;
- who have had their bladder removed due to cancer;
- who have had a long stay in hospital; or
- who have been admitted to hospital many times.

Other procedures that are available

Alternatives to this procedure include open surgery, shock wave therapy and observation to allow spontaneous passage.

Your pre-operative assessment

Before you are admitted for your operation, you will be required to attend for a pre-operative assessment, to ensure that you are fit for surgery. It is important that you attend for this appointment to avoid delaying your surgery.

You will be asked to complete a health questionnaire immediately after you have been listed for your surgery. The health questionnaire may be on paper or on a tablet/computer. The information required includes all medical conditions, regular medications, allergies to medications and your previous anaesthetic history. The information you give us will be reviewed by the pre-operative assessment team and you will be given a date to attend for pre-operative assessment.

At the clinic, the nursing staff will confirm the medical information you have previously given. You will likely have an examination of your heart and lungs and some further tests may be required, such as a blood test, X-ray, heart test or lung test. If a more detailed assessment or discussion is required you may see an anaesthetist prior to your admission for surgery. This may require an additional appointment.

If you are taking prescribed medicines please bring a copy of your repeat prescription to your appointment and a copy of the operation consent form (if you were provided with a copy at your out-patient appointment).

Following your assessment, the staff will provide you with written information regarding preparation for your surgery and a point of contact. It is important that you follow the fasting instructions given on your admission letter.

Being admitted to the ward

You will usually be admitted on the evening before your surgery. You will be welcomed on to the ward and your details checked. We will fasten an armband containing your hospital information to your wrist. You will usually be asked to continue with your normal medication during your stay in hospital, so please bring it with you, in the green bag provided for you at pre-operative assessment.

Your anaesthetic

Your surgery will usually be carried out under a general anaesthetic. This means that you will be asleep during your operation and you will feel nothing.

Before you come into hospital

There are some things you can do to prepare yourself for your operation and reduce the chance of difficulties with the anaesthetic.

- If you smoke, consider giving up for several weeks before the operation. Smoking reduces the amount of oxygen in your blood and increases the risks of breathing problems during and after an operation.
- If you are overweight, many of the risks of anaesthesia are increased. Reducing your weight will help.
- If you have loose or broken teeth or crowns that are not secure, you may want to visit your dentist for treatment. The anaesthetist will usually want to put an airway in your mouth to help you breathe. If your teeth are not secure, they may be damaged.
- If you have long-standing medical problems, such as diabetes, hypertension (high blood pressure), asthma or epilepsy, you should consider asking your GP to give you a check-up.
- If you become unwell or develop a cough or cold the week before your surgery please contact the pre-operative assessment team on the number provided. Depending on your illness and how urgent your surgery is, we may need to delay your operation as it may be better for you to recover from this illness before your surgery.

Your pre-surgery visit by the anaesthetist

- After you come into hospital, the anaesthetist will come to see you and ask you questions about:
 - your general health and fitness;
 - any serious illnesses you have had;
 - any problems with previous anaesthetics;
 - medicines you are taking;
 - allergies you have;
 - chest pain;
 - shortness of breath;
 - heartburn;
 - problems with moving your neck or opening your mouth; and
 - any loose teeth, caps, crowns or bridges.
- Your anaesthetist will discuss with you the different methods of anaesthesia they can use. After talking about the benefits, risks and your preferences, you can then decide together what is best for you.

On the day of your operation

Nothing to eat and drink (nil by mouth)

It is important that you follow the instructions we give you about eating and drinking. We will ask you not to eat or drink anything for six hours before your operation. This is because any food or liquid in

your stomach could come up into the back of your throat and go into your lungs while you are being anaesthetised. You may take a few sips of plain water up to two hours before your operation so you can take any medication tablets.

Your normal medicines

Continue to take your normal medicines up to and including the day of your surgery. If we do not want you to take your normal medication, your surgeon or anaesthetist will explain what you should do. It is important to let us know if you are taking anticoagulant drugs (for example, warfarin, aspirin, clopidogrel, persantin or dabigatran).

Your anaesthetic

When it is time for your operation, a member of staff will take you from the ward to the operating theatre. They will take you into the anaesthetic room and the anaesthetist will get you ready for your anaesthetic.

To monitor you during your operation, your anaesthetist will attach you to a machine to monitor your heart, your blood pressure and the oxygen level in your blood. A fine tube (cannula) will be placed in a vein in your arm or hand.

For this operation we will often advise you to have a spinal anaesthetic prior to having the general anaesthetic. This will help provide you with good pain relief following the procedure. A spinal anaesthetic involves the injection of a local anaesthetic drug through a needle into the small of your back to numb the nerves from the waist down to the toes for several hours. You will be asked to either sit on the side of the bed with your feet on a low stool or lie on your side, curled up with your knees tucked up towards your chest. You will often remain awake while this procedure is carried out. You may feel some discomfort in your lower back or legs whilst the anaesthetic is being injected. The anaesthetic staff will support and reassure you during the procedure.

You will then also have a general anaesthetic which usually commences with medicines being injected through the cannula placed earlier. Sometimes a mixture of gases and oxygen can be breathed through a mask to give the same effect.

Pain relief after surgery

Pain relief is important to aid your recovery from surgery. This may be in the form of tablets, suppositories or injections. Once you are comfortable and have recovered safely from your anaesthetic, we will take you back to the ward. The ward staff will continue to monitor you and assess your pain relief. They will ask you to describe any pain you have using the following scale.

- 0 = No pain
- 1 = Mild pain
- 2 = Moderate pain
- 3 = Severe pain

It is important that you report any pain you have as soon as you experience it.

What are the risks?

The risk to you as an individual will depend on whether you have any other illness, personal factors, such as smoking or being overweight and surgery that is complicated or prolonged.

General anaesthesia is safer than it has ever been. If you are normally fit and well, your risk of dying from any cause while under anaesthetic is less than one in 250,000. This is 25 times less likely than dying in a car accident. The side effects of having a general anaesthetic include drowsiness, nausea (feeling sick), muscle pain, sore throat and headache. There is also a small risk of dental damage.

The side effects of having a spinal anaesthetic are headache, low blood pressure, itching of the skin due to the drugs injected and temporary difficulty in passing urine. Rare complications of a spinal anaesthetic are temporary loss of sensation in your legs, 'pins and needles' or muscle weakness in your legs. Permanent damage to the nerves is very rare.

Your anaesthetist will discuss the risks with you and will be happy to answer any questions you may have.

After your surgery

- You will be taken to the recovery room to the general or day care ward. You will need to rest until the effects of the anaesthetic have worn off. You will have a drip in your arm to keep you well-hydrated.
- Your anaesthetist will arrange for you to have painkillers for the first few days after the operation.
- You will be encouraged to get out of bed and move around as soon as possible, as this helps prevent chest infections and blood clots.
- Your surgical team will assess your progress and answer any questions you have about the operation.

Leaving hospital

Length of stay

How long you will be in hospital varies from patient to patient and depends on how quickly you recover from the operation and the anaesthetic. Most patients having this type of surgery will leave hospital one day after the procedure.

Medication when you leave hospital

Before you leave hospital, the pharmacy will give you any extra medication that you need to take when you are at home. You may experience pain in the kidney over the first 24 to 72 hours; this is due to swelling caused by the instrument or by the presence of a stent. Anti-inflammatory painkillers will help this pain which normally settles after 72 hours.

Convalescence

How long it takes for you to fully recover from your surgery varies from person to person. It can take at least 10 days. You should consider who is going to look after you during the early part of this time. You may have family or close friends nearby who are able to support you or care for you in your home during the early part of your recovery period. You might consider going to stay with relatives or you may wish to make your own arrangements to stay in a convalescent home while you recover. After you return home, you will need to take it easy and should expect to get tired to begin with.

Personal hygiene

You will normally bathe or shower while you are in hospital, and this can continue as normal after you leave hospital.

Diet

When you get home, you should drink twice as much fluid as you would normally to flush your system through and minimise any bleeding. You don't usually need to follow a special diet. If you need to change what you eat, we will give you advice before you go home.

Exercise

We recommend that you avoid strenuous exercise and heavy lifting for up to 2-3 weeks. We encourage lighter exercise, such as walking and light housework, as soon as you feel well enough.

Sex

You can continue your usual sexual activity as soon as you feel comfortable.

Driving

You should not drive until you feel confident that you could perform an emergency stop without discomfort – probably at least two weeks after your operation. It is your responsibility to check with your insurance company regarding your insurance cover following an operation.

Work

How long you will need to be away from work varies depending on:

- how serious the surgery is;
- how quickly you recover;
- whether or not your work is physical; and
- whether you need any extra treatment after surgery.

Most people will not be fully back to work for 7 days. If you need a medical sick note for the time you are in hospital and for the first three to four weeks after you leave, please ask us.

Outpatient appointment

Before you are discharged we will either give you a follow-up appointment to come to the outpatient department or we will send it to you in the post.

If you develop a fever, severe pain on passing urine, inability to pass urine or worsening bleeding, you should contact your GP immediately. Small blood clots or stone fragments may also pass down the ureter from the kidney, resulting in renal colic. In this event, you should contact your GP immediately.

Contact details

If you have any specific concerns that you feel have not been answered and need explaining, please contact the following.

- Alexandra Hospital:
 - Secretaries: 01527 512155
 - Ward 10 Nursing Staff: 01527 512101 or 01527 503030 ext: 42101 or 44072
 - Debbie Ralph, Urology Nurse Specialist: 01527 503030 ext: 45746
 - Jackie Askew, Uro-oncology Macmillan Nurse Specialist: 01527 503030 ext: 44150
- Kidderminster Hospital and Treatment Centre:
 - Secretaries: 01562 513097
 - Penny Templey, Urology Nurse Specialist Lead: 01562 512328
 - Mary Symons, Nurse Specialist – Survivorship Programme: 01562 512328
- Worcestershire Royal Hospital:
 - Secretaries: 01905 760766
 - Helen Worth and Lisa Hammond, Urology Nurse Specialists: 01905 760875

Other information

The following internet websites contain information that you may find useful.

- www.worcsacute.nhs.uk
Worcestershire Acute Hospitals NHS Trust
- www.patient.co.uk
Information factsheets on health and disease
- www.rcoa.ac.uk

Information leaflets by the Royal College of Anaesthetists about 'Having an anaesthetic'

- www.nhsdirect.nhs.uk
On-line health encyclopaedia
- www.baus.org.uk
Information from The British Association of Urological Surgeons

Patient Services Department

It is important that you speak to the department you have been referred to (see the contacts section) if you have any questions (for example, about medication) before your investigation or procedure.

If you have any concerns about your treatment, you can contact the Patient Services Department on 0300 123 1733. The Patient Services staff will be happy to discuss your concerns and give any help or advice.

If you have a complaint and you want it to be investigated, you should write direct to the Chief Executive at Worcestershire Acute Hospitals NHS Trust, Charles Hastings Way, Worcester WR5 1DD or contact the Patient Services Department for advice.

Please contact Patient Services on 0300 123 1733 if you would like this leaflet in another language or format (such as Braille or easy read).

Bengali

“আপনি যদি এই লিফলেটটি বিকল্প কোনো ভাষায় বা ফরমেটে (যেমন ব্রেইল বা সহজ পাঠ) চান, তাহলে এই নম্বরে 0300 123 1733 প্যাশেন্ট সার্ভিসের সাথে যোগাযোগ করুন।”

Urdu

“اگر آپ کو یہ دستی اشتہار کسی مُتبادل زبان یا ساخت میں چاہیے (جیسے کہ بریل / ایڑی ریڈ) تو پبلیشمنٹ سروسز سے 0300 123 1733 پر رابطہ کریں۔”

Portuguese

“Por favor, contacte os Serviços de Apoio ao Paciente através do número 0300 123 1733, caso precise deste folheto numa língua alternativa ou formato (como Braille / fácil de ler).”

Polish

“Jeżeli pragniecie Państwo otrzymać tę broszurę w innym języku lub formacie (Braille / duży druk) proszę skontaktować się z Obsługą Pacjentów pod numerem 0300 123 1733.”

Chinese

“如果您需要此份傳單的其他語言選擇或其他版本 (如盲人點字版/易讀版容易的閱讀),請致電 0300 123 1733與病患服務處聯繫。”

Comments

We would value your opinion on this leaflet, based on your experience of having this procedure done. Please put any comments in the box below and return them to the Clinical Governance Department, Finance Department, Worcestershire Royal Hospital, Charles Hastings Way, Worcester, WR5 1DD.

Name of leaflet: _____ Date: _____

Comments:

Thank you for your help.