



## CYSTOSCOPY & CRUSHING of BLADDER STONES (ENDOSCOPIC LITHOLAPAXY)

Information about your procedure from  
The British Association of Urological Surgeons (BAUS)

This leaflet contains evidence-based information about your proposed urological procedure. We have consulted specialist surgeons during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.



To view this leaflet online, scan the QR code (right) or type the short URL below it into your web browser:

<http://rb.gy/o7njl>

### KEY POINTS

- Bladder stones can usually be removed using a telescope passed into your bladder through the urethra (waterpipe)
- Your stone may be washed out (if small) or, if larger, broken up using a crushing tool, a laser or a mechanical fragmenting device
- The likelihood of all the stone being cleared in one procedure is very high
- You will probably have a catheter in your bladder for a day or two after the procedure

### What does this procedure involve?

Litholapaxy involves crushing or disintegrating bladder stone(s) using telescopic fragmentation devices or a laser passed through your urethra (waterpipe). Once the stone has been broken up, the small fragments produced can be removed using suction.

### What are the alternatives?

- **Observation** - “doing nothing”
- **Open surgery** - cutting into the abdomen and opening the bladder directly to remove the stone

- **Laparoscopic or percutaneous surgery** - using keyhole surgery to put a telescope directly into the bladder, through the skin of your abdomen (tummy), and remove your stone

## What happens on the day of the procedure?

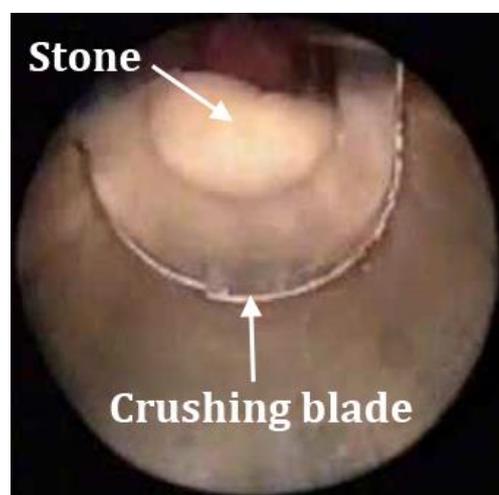
Your urologist (or a member of their team) will briefly review your history and medications, and will discuss the surgery again with you to confirm your consent.

An anaesthetist will see you to discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.

We may provide you with a pair of TED stockings to wear, and we may give you a heparin injection to thin your blood. These help to prevent blood clots from developing and passing into your lungs. Your medical team will decide whether you need to continue these after you go home.

## Details of the procedure

- We use either a general anaesthetic (where you will be asleep) or a spinal anaesthetic (where you will be unable to feel anything from the waist down)
- we usually give you an injection of antibiotics before the procedure, after you have been checked for any allergies
- we put a telescope into your bladder through the urethra (water pipe) to inspect the urethra and the interior of your bladder.
- we wash out small stones through the telescope
- we break up larger stones using a crushing instrument (pictured), laser energy or a mechanical disintegration device
- the stone fragments are then removed using simple suction
- we usually put in a bladder catheter which is removed after one to three nights
- the procedure takes 15 to 60 minutes to perform
- you can expect to be in hospital for two to three days



Further information and a [video of telescopic crushing of a bladder stone](#) are available on the BAUS website.

### Are there any after-effects?

The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. We have not listed very rare after-effects (occurring in less than 1 in 250 patients) individually. The impact of these after-effects can vary a lot from patient to patient; you should ask your surgeon's advice about the risks and their impact on you as an individual:

After-effect	Risk
Mild burning on passing urine for a short time after the procedure	 Almost all patients
Infection of the bladder requiring antibiotic treatment	 Between 1 in 2 & 1 in 10 patients
Bleeding for a few days after the procedure	 Between 1 in 10 & 1 in 50 patients
Failure to remove all the stones (or stone fragments)	 Between 1 in 10 & 1 in 50 patients
Anaesthetic or cardiovascular problems possibly requiring intensive care (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)	 Between 1 in 50 & 1 in 250 patients (your anaesthetist can estimate your individual risk)
Injury to the urethra resulting in scarring which may require further surgery	 Between 1 in 100 & 1 in 250 patients
Perforation of the bladder requiring open surgical exploration and repair	 Between 1 in 100 & 1 in 250 patients

## What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is between 4 & 6%; this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This figure is higher if you are in a “high-risk” group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- long hospital stays; or
- multiple hospital admissions.

## What can I expect when I get home?

- you will be given advice about your recovery at home
- you will be given a copy of your discharge summary and a copy will also be sent to your GP
- any antibiotics or other tablets you may need will be arranged & dispensed from the hospital pharmacy
- you should drink twice as much fluid as you would normally for the first 24 to 48 hours, to flush your system through and reduce the risk of infection
- passing urine may be painful at first and the urine you pass may be slightly bloodstained; this should settle within a few days
- you may return to work when you are comfortable enough and when your GP is satisfied with your progress
- if you develop a fever, frequent passage of urine, severe pain on passing urine, inability to pass urine or worsening bleeding, you should contact your GP immediately
- a follow-up outpatient appointment will normally be made to see you at an appropriate time

## General information about surgical procedures

### *Before your procedure*

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft);
- a regular prescription for a blood thinning agent (e.g. warfarin, aspirin, clopidogrel, rivaroxaban, dabigatran);
- a present or previous *MRSA* infection; or

- a high risk of variant-CJD (e.g. if you have had a corneal transplant, a neurosurgical dural transplant or human growth hormone treatment).

### ***Questions you may wish to ask***

If you wish to learn more about what will happen, you can find a list of suggested questions called "[Having An Operation](#)" on the website of the Royal College of Surgeons of England. You may also wish to ask your surgeon for his/her personal results and experience with this procedure.

### ***Before you go home***

We will tell you how the procedure went and you should:

- make sure you understand what has been done;
- ask the surgeon if everything went as planned;
- let the staff know if you have any discomfort;
- ask what you can (and cannot) do at home;
- make sure you know what happens next; and
- ask when you can return to normal activities.

We will give you advice about what to look out for when you get home. Your surgeon or nurse will also give you details of who to contact, and how to contact them, in the event of problems.

### ***Smoking and surgery***

Ideally, we would prefer you to stop smoking before any procedure. Smoking can worsen some urological conditions and makes complications more likely after surgery. For advice on stopping, you can:

- contact your GP;
- access your local [NHS Smoking Help Online](#); or
- ring the Smoke-Free National Helpline on **0300 123 1044**.

### ***Driving after surgery***

It is your responsibility to make sure you are fit to drive after any surgical procedure. You only need to [contact the DVLA](#) if your ability to drive is likely to be affected for more than three months. If it is, you should check with your insurance company before driving again.

### **What should I do with this information?**

Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you would like to have a copy for

your own records. If you wish, the medical or nursing staff can also arrange to file a copy in your hospital notes.

### **What sources have we used to prepare this leaflet?**

This leaflet uses information from consensus panels and other evidence-based sources including:

- the [Department of Health \(England\)](#);
- the [Cochrane Collaboration](#); and
- the [National Institute for Health and Care Excellence \(NICE\)](#).

It also follows style guidelines from:

- the [Royal National Institute for Blind People \(RNIB\)](#);
- the [Information Standard](#);
- the [Patient Information Forum](#); and
- the [Plain English Campaign](#).

#### **DISCLAIMER**

Whilst we have made every effort to give accurate information, there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

**PLEASE NOTE:** the staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you have any questions, you should contact your Urologist, Specialist Nurse or GP in the first instance.