

## Patient information factsheet

# SWL (shockwave lithotripsy) for kidney stones

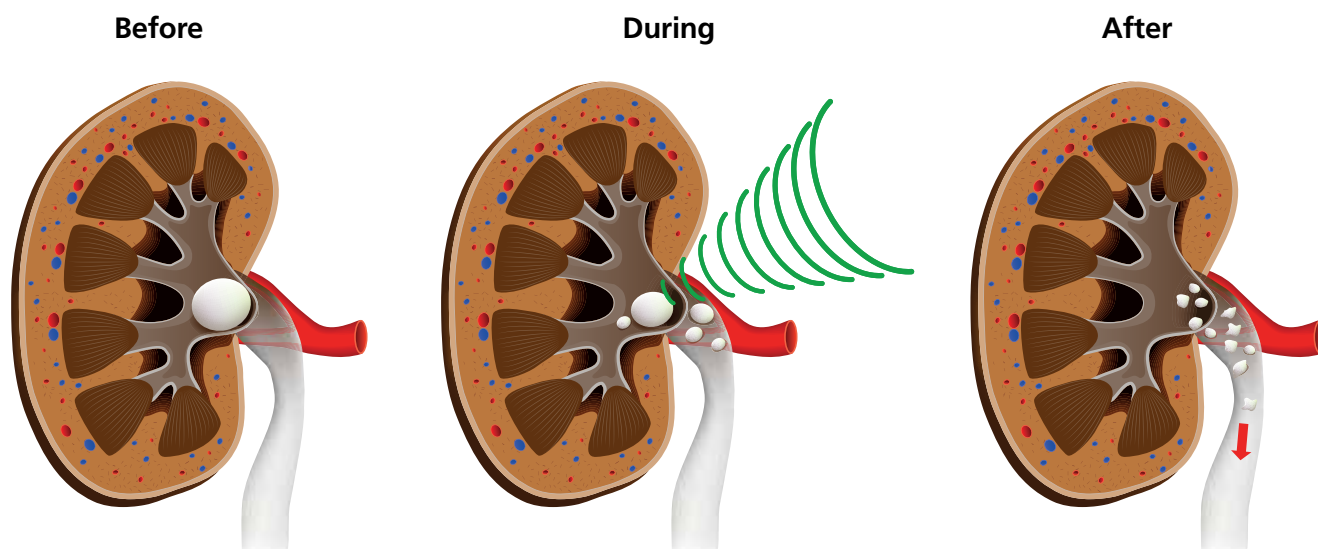
This factsheet will explain how SWL (shockwave lithotripsy) is used to treat kidney stones (stone-like lumps that can form in one or both of the kidneys), and help you understand what to expect from your treatment.

### About SWL

SWL uses shockwaves (waves of energy), guided by ultrasound (high-frequency sound waves), to break kidney stones into small enough fragments to enable them to pass naturally in the urine. This treatment can sometimes be uncomfortable, but most people tolerate it well. You will be given pain-relief medication to help. More than one SWL treatment may be needed, and it may not work for all stones.

Alternatives to SWL, which will have been discussed at your consultation, include telescopic surgery (ureteroscopy), percutaneous (PCNL) surgery and observation (waiting to see if the stones pass naturally in the urine by themselves).

The images below illustrate the stones before, during and after SWL treatment.



### Before the procedure

Blood tests may be needed. These can be done at your GP's surgery or at the hospital.

Some patients may also need to have an x-ray to check the position of the stone/s. Your consultant will let you know whether an x-ray is needed or not.

You will be given a Voltarol (pain relief) suppository to self-administer one hour before the procedure.

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## Before your treatment

You must inform the urology team (contact details on last page) at least two weeks before your procedure if any of these apply to you:

- any type of heart condition
- an artificial heart valve, coronary artery stent, heart pacemaker/defibrillator or any other implanted foreign body
- an artificial blood-vessel graft
- a neurosurgical shunt
- an artificial joint
- you have or have had an MRSA infection
- you are at high risk of variant CJD (corneal transplant, neurosurgical dural treatment or injections of human-derived growth hormone)
- you have a known allergy to ciprofloxacin, trimethoprim, diclofenac or ibuprofen
- you are or may be pregnant

## Medicines

If you take any of the following medicines you must discuss this with your urologist (specialist doctor). You will be asked to stop taking these five to ten days before your treatment:

Aspirin  
Clopidogrel  
Warfarin  
Rivoxaban  
Apixaban  
Dabigatran  
Prasugrel  
Ticagrelor  
Edoxaban

## On the day

When you arrive you will be asked to put on a hospital gown. Your treatment lasts for about 40 minutes but you should be prepared to be in the department for up to three hours. You may have a urine sample taken. If you have a urine infection, the procedure can be postponed and you will be given antibiotics.

You will be given tablets and suppository preparations of pain relief. You will be awake during the procedure. You will be monitored throughout by a nurse and a lithotripsy technician. Your stone will be identified by ultrasound and/or x-ray and then the shockwave treatment will start. This makes a loud clicking noise and is often said by patients to feel like being flicked with a large elastic band.

## After the procedure

You will need to wait about an hour after the procedure to ensure you are urinating well. You will urinate some blood. This is normal.

If you wish to travel abroad, you should inform your travel insurer that you have kidney stones. If your treatment is planned close to a holiday/business trip then the treatment should be postponed. You might have severe pain (renal colic) as the stone fragments pass through your ureter (tube between your kidney and bladder). There is also a small risk of these stones getting stuck in the ureter, occasionally needing emergency hospital admission.

Please remember to bring a change of underwear with you on the day.

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## When you go home

- We advise you to rest for 24 hours after the treatment.
- You should drink plenty of fluids, preferably water. Aim for two to three litres (six pints/15 cups/10 mugs) in the first 24 hours. This will help clear the urine of stone fragments and blood.
- Some patients experience pain after treatment, this is usually when stone fragments pass from the kidney to the bladder. You should take regular pain relief medicine for a few days (follow the instructions on the packet).

## Side effects

### You may experience:

- blood in the urine for a few days
- pain in your kidney
- urinary infection
- bruising or blistering of skin
- need for further SWL treatment
- sometimes the treatment may not break up very hard stones, meaning you may need alternative treatment

### Less common side effects include:

- severe infection requiring intravenous antibiotics
- kidney damage or blockage requiring exterior kidney drainage (nephrostomy)
- stone fragments becoming stuck between kidney and bladder requiring surgery
- kidney damage (this is rare)
- recurrence of stones

## Concerns

You must contact your GP immediately if you have any concerns or any of the following apply to you:

- you develop a temperature
- you feel generally unwell
- you are vomiting
- you have severe pain when you urinate (wee)
- you are unable to urinate
- any bleeding increases

If your GP is closed you should go to your nearest emergency department.

## What happens next?

You will have a follow-up appointment in the urology stone clinic two to four weeks after treatment (depending on size and location of your stone).

## Contact us

If you have any further questions then please contact:

Urology nurse specialists on: **077 4725 0068** or **023 8120 8455**,  
or email: [uhs.southcoast.lithotripsy@nhs.net](mailto:uhs.southcoast.lithotripsy@nhs.net)

Urology Centre, G level, Centre Block, Southampton General Hospital, Tremona Road,  
Southampton SO16 6YD

**If you need a translation of this document, an interpreter or a version in large print, Braille or on audio tape, please telephone 023 8120 4688 for help.**