

# Lithotripsy



## There are now many methods of treating stones in the kidney or ureter. Lithotripsy is one method.

Stones can be broken up by focusing pressure waves onto them from a lithotripter – this is known as “Shock Wave Lithotripsy” – SWL for short.

A lithotripter is a machine which has the ability to visualise stones either by x-ray or ultrasound.

The energy waves produced by the machine are accurately focused on the stone and travel through the body tissues without damaging them. The energy is dispersed to break up the stone usually reducing it to ‘sand’ or ‘gravel’ – which is then passed in the urine with little or no pain.

Before the treatment you will receive some pain killing medication which may be in the form of a tablet or suppository. Once in the treatment room you will be asked to lie on the treatment table. The exact position of the stone is checked by ultrasound or x-ray. The pressure wave generator is placed against the skin and the energy waves produced. This may cause mild discomfort. If you experience pain, the treatment will be stopped and further medication to control the pain given.

The majority of patients are treated as day cases, spending 2-3 hours in the hospital. Please bring loose comfortable clothing and be prepared to provide a urine sample on arrival.

You will not be able to drive yourself home after treatment. The treatment usually takes 30 – 60 minutes, during which time you could listen to your own music (please bring your own MP3 player or CDs if you wish). During the treatment you will be aware of the noise of the pressure wave generation but this sound is not disturbing. You will have a sensation like being flicked in the back by an elastic band. Occasionally you may also feel a deeper discomfort in the kidney.

You will be required to lie still through the treatment so that the position of the stone does not alter.

More than one treatment is usual.



## Are there any side effects?

Most procedures have possible side-effects. But, although the complications listed below are well-recognised, most patients do not suffer any problems.

### Common (greater than 1 in 10)

- Blood in your urine for up to 72 hours after the procedure.
- Pain in your kidney as small fragments of stone pass for a couple of weeks (1 in 5).
- Urinary infection due to bacteria released as the stone breaks (1 in 10).
- Bruising of the skin.
- Need for further ESWL treatment (1 in 5).
- Failure to break stone(s) which may need alternative treatment (up to 1 in 2), especially for very hard stones.
- Recurrence of stones (approx.. 1 in 2).

### Occasional (between 1 in 10 and 1 in 50)

- Stone fragments may get stuck in the tube between the kidney and the bladder and require surgery to remove the fragments.

### Rare (less than 1 in 50)

- Severe infection requiring intravenous antibiotics (less than 1 in 100) and the need for drainage of the kidney by a small tube placed into it.
- Kidney damage (bruising) or infection needing further treatment.

## What should I expect when I go home?

When you get home, you should drink twice as much fluid as you would normally (at least 2 litres of fluid per day). This helps to flush your system through and minimise any bleeding or infection. If you normally take anticoagulants, you will be informed when you may restart them. You may see blood in your urine which may continue for up to 72 hours. You should take painkillers as required. Anti-inflammatory drugs are the most effective (e.g. diclofenac) but you should not take these if you have asthma, a stomach ulcer or any sensitivity to Aspirin. In this event, ask your urologist or specialist nurse for an alternative. If you develop bruising or blistering on your skin, apply simple soothing skin cream to ease any discomfort. The bruising normally disappears within seven days

## What else should I look out for?

If you develop a fever, severe pain (not controlled by pain killers), you cannot pass urine or your bleeding increases, please attend the Emergency Department.

## Useful contacts

Urology Outpatients Reception 01225 825990

Urology Outpatients Nurses Office 01225 824819

Royal United Hospitals Bath NHS Foundation Trust  
Combe Park, Bath BA1 3NG  
01225 428331 [www.ruh.nhs.uk](http://www.ruh.nhs.uk)

Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital. Email [ruh-tr.PatientAdviceandLiaisonService@nhs.net](mailto:ruh-tr.PatientAdviceandLiaisonService@nhs.net) or telephone 01225 825656.