Shock-wave lithotripsy (ESWL)
The Urology service offers a comprehensive range of adult urologic care to patients, including advanced diagnostic, medical and surgical care for men and women. Our team of specialised urologists offer individualised care on general urological conditions, urologic cancers (bladder, kidney, penile, prostate and testicular), urinary stone disease, urinary tract infection, prostate diseases (benign prostatic hyperplasia and prostatitis), urinary incontinence for males and females, male infertility and blood in the urine (haematuria).
Shock-wave lithotripsy (ESWL) is an outpatient treatment that removes kidney or ureteral stones from your body. Focused shock waves (short pulses of high energy sound waves) are transmitted through the skin to break up the stones from outside the body. As the stones absorb the energy from the shock waves (Fig. 1), they break up and are passed out with the urine.

ESWL is suitable in over 90% of patients, but success also depends on the stone's characteristics and a patient's physical condition.
How is ESWL performed?

You will lie down on an operating table with one side of your body positioned towards the shock-wave generator. The exact location of your stone will be determined by an ultrasound or X-ray.

During the procedure, you will hear the making of shock waves as your doctor begins treatment with low intensity and slowly increases the power of the waves. ESWL does not require anaesthesia, but you will be given pain medication for the procedure. ESWL lasts approximately 45 minutes.

If you have a large stone, multiple sessions will be required to break it up completely.
When is ESWL not recommended?

- You are pregnant
- You have a high risk of severe bleeding
- You have uncontrolled infections
- Your physique makes it difficult for the stone to be reached
- You have an aneurysm (blood-filled bulge in the wall of a blood vessel)
- You have an anatomical obstruction in your urinary tract, below the stone or in the bladder
- Your stone is very hard (cystine stone)

Can the stone be completely removed?

ESWL breaks the stone up into small pieces to be passed out with urine. You may need more than one procedure if the stone is very big.

How do I prepare for ESWL?

If you are taking medication to prevent your blood from clotting, discuss with your doctor if there is a need to stop taking it before ESWL. Do not eat anything four hours before the procedure.
When can I return to normal activities?

In general you can return to normal activities right after your treatment. It is important to get some rest on the day of your procedure. Avoid driving or operating any motorised vehicle in the next 24 hours.

Post-operation instructions

Drink more water to flush out the stone fragments from your body. Drink at least two litres or more a day. Avoid alcohol in the first 24 hours.

You may be required to filter your urine to catch stone fragments for analysis.

Your doctor will provide you with a time schedule to return for regular check-ups at the hospital in the first weeks after ESWL.

Visit the hospital immediately if you:
- Develop a fever
- Experience pain even when you are on painkillers
- Continue to have blood in your urine more than two days after treatment

<table>
<thead>
<tr>
<th>Advantages of ESWL</th>
<th>Disadvantages of ESWL</th>
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<tbody>
<tr>
<td>Low risk of complications</td>
<td>Does not remove the stone. Stones are broken into fragments and passed out with urine in the following days or weeks. May cause renal colic.</td>
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<tr>
<td>No need for anaesthesia</td>
<td>Multiple sessions will be required to remove large stone(s).</td>
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Reference: European Association of Urology
For more information

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1 Jurong East St 21, Singapore 609606
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www.juronghealth.com.sg

Clinical and appointment line hours (closed on Sundays and public holidays)
For appointments, please call 6716 2222
Monday - Friday 8.00am - 5.30pm, Saturday 8.00am - 12.30pm

For dental appointments, please call 6716 2233
Monday - Thursday 8.00am - 5.30pm, Friday 8.00am - 5.00pm

Getting there

By train
Jurong East MRT Station

By bus
From Jurong East Bus Interchange
SBS 51, 52, 66, 78, 79, 97, 97e, 98, 98M, 105, 143, 143M, 160, 183, 197, 333, 334, 335, 506

Along Boon Lay Way
SBS 99, Private bus service 625

Disclaimer:
The information in this brochure is meant for educational purposes and should not be used as substitute for medical diagnosis or treatment. Please seek your doctor’s advice before starting any treatment or if you have any questions related to your health, physical fitness or medical condition.