

Kidney Stone Disease

Kidney stone disease is a common ailment that occurs in 2 - 3% of the population. People with kidney stones often experience sudden pain in the back or sides of the abdomen, and this is caused by a stone in the ureter (the muscular tube that carries urine from the kidneys to the bladder).

Many kidney stones go unnoticed until they cause acute symptoms, specifically, loin pain as the

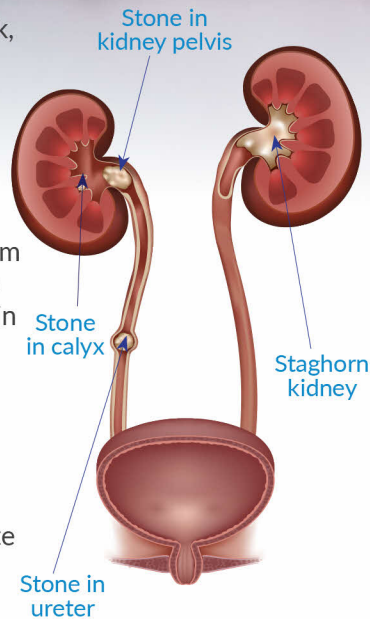
stone passes through the ureter. In many instances, the stones may be discovered incidentally.

Smaller non-obstructing stones in the kidney can be treated conservatively, but obstructing stones need urgent treatment.

At the NUH Urology Centre, we aim to offer early diagnosis and intervention for all our patients.

Signs & Symptoms

- Pain in the side and back, below the ribs
- Fluctuations in pain intensity, with periods of pain lasting 20 - 60 minutes
- Pain waves radiating from the side and back to the lower abdomen and groin
- Bloody, cloudy or foul-smelling urine
- Pain on urination
- Nausea and vomiting
- Persistent urge to urinate
- Fever and chills if infection is present



National University Hospital

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Closed on
Sat, Sun & Public Holidays

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Kidney Stones

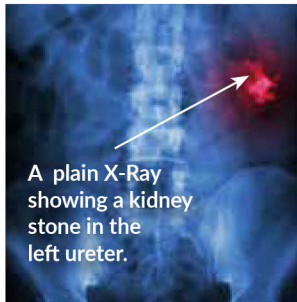
Services we offer

Diagnosis

Imaging diagnosis is crucial in the treatment of kidney stone disease. Prompt diagnosis through X-Ray and/or Spiral Computed Tomography (CT) Scan allows for early treatment, which can be offered on the same day as the first consultation.

X-Ray

A simple and fast test that allows doctors to visualise hard stones.



A plain X-Ray showing a kidney stone in the left ureter.

Spiral CT Scan

The gold standard in diagnosing kidney stones, the spiral CT scan allows accurate localisation and measurement of the stone size. It also provides an estimation of the density of the stone.

Treatment

Different treatments are available for kidney stones, depending on the type of stone and the root cause. One simple way to move a stone through your urinary tract is to drink plenty of water to flush it out.

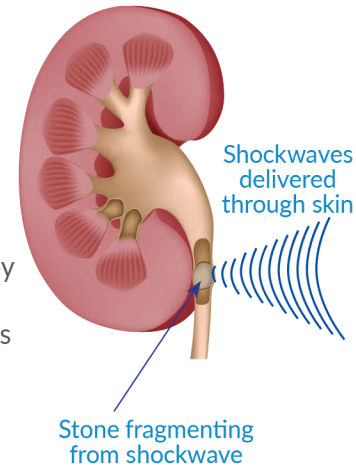
Stones that cannot be treated with more conservative procedures, either because they are too large to pass out on their own, or they cause bleeding, kidney damage or ongoing urinary tract infections, may need more invasive procedures.

Extracorporeal Shockwave Lithotripsy (ESWL)

ESWL uses high-energy shockwaves to break kidney stones down into tiny fragments. These fragments are then flushed out naturally with urine.

This treatment is carried out in the clinic within the same week as the diagnosis, and does not require any anaesthesia.

Some patients may require multiple treatment sessions.

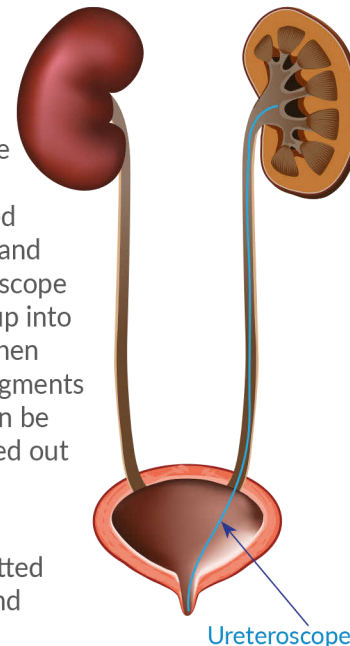


ESWL is a very effective treatment for stones in the kidney and upper ureter between 5mm and 15mm in diameter.

Rigid and Flexible Ureteroscopy

A surgical procedure called ureteroscopy may be required if you have a stone in your ureter or kidney. This procedure is performed under general anaesthesia and involves passing a thin telescope into the bladder and then up into the ureter. The stone can then be broken up into small fragments with a laser so that they can be removed surgically or passed out naturally with urine.

Patients undergoing this treatment are usually admitted either as a day case or spend a single night in hospital.



Percutaneous Nephrolithotomy (PNCL)

This treatment is often used for larger stones or if alternative treatments such as ESWL are not suitable. It is sometimes referred to as keyhole kidney stone surgery. This procedure is performed under general anaesthesia and usually requires a 2 - 3 night stay.

During this procedure, a small incision is made in the back and a telescopic instrument is inserted into the kidney. Once identified, the stone can then be broken down into smaller pieces and removed. An external tube is usually left in the wound for a day.

