

## **Removal of kidney stones: URS**

(0:01 - 0:27)

Your doctor has recommended that you undergo a ureteroscopy. During this procedure, a ureteroscope with a tiny fibre optic camera is inserted through the urethra and bladder into the ureter or kidney. Ureteroscopy is used to remove kidney or ureteric stones and enables a direct view of the ureter and kidney to confirm or rule out other abnormalities.

(0:29 - 0:45)

This animation shows the removal of a kidney stone. Ureteroscopy is typically performed with the patient under general anaesthesia. A small tube is passed through the urethra into the bladder and from there up into the ureter and into the kidney.

(0:46 - 1:04)

A contrast study may be performed to assess the anatomy of the renal collecting system before stone removal. A contrast agent or dye is administered through the tube into the ureters. X-ray images clearly outline the urinary channel and exact position of the stone.

(1:05 - 1:39)

A so-called safety wire that helps guide the ureteroscope through the ureter is inserted. Depending on the location of the stone, a rigid or flexible ureteroscope is passed through the urethra into the bladder following the safety wire into the ureter, the small tube that drains urine from the kidney to the bladder. Once the stone is located, it may be pulled out directly with a so-called stone basket or a laser is used to break the stone into smaller pieces before extraction using the basket.

(2:02 - 2:32)

After stone extraction, the collecting system is checked to ensure that no residual stones have been missed. Your doctor may place a temporary small tube, called a stent, within the ureter at the end of the procedure to ensure that swelling does not block the drainage of the urine. A catheter, which is a tube placed through the urethra into the bladder, may be used to drain the bladder.

(2:33 - 2:50)

This catheter remains in place with the use of an inflated balloon. The catheter and stent are usually removed shortly after the procedure. You can leave the hospital once you are able to empty your bladder sufficiently and you have no fever or pain.