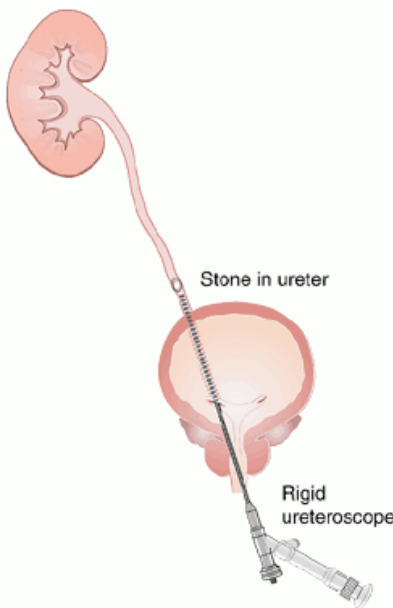


Laser Stone Surgery using Rigid Ureteroscopy

What is it?

Ureteroscopy is where a long thin rigid telescope is introduced into the upper urinary tract via the bladder (*see diagram below*). The diameter of the instrument is less than 2mm and allows visualisation of the lower half of the ureter. A small instrument port allows introduction of micro-baskets and laser fibres (0.3mm in diameter) to manipulate and fragment stones. It is used only to treat stones in the ureter, and cannot treat stones within the kidney (*see flexible pyeloscopy info sheet for kidney stone treatment*).



What are the main advantages of this approach?

- Allows stone treatment without the need for any incision by using the urethral orifice as the entry point
- A highly successful technique (over 95%)
- Can be performed as day surgery

What are the main disadvantages?

- More invasive compared to shock wave lithotripsy
- Small risk of damaging the ureter (0.5%)

What preparation is required?

As the procedure is performed under general anaesthesia, you should have nothing to eat or drink for 6 hours prior to treatment. Regular medications can be taken with a sip of water with the **exception** of blood thinning agents (eg. warfarin, aspirin, clopidogrel) or non-steroidal anti-inflammatories which need to be stopped for 7-10 days. A mid stream urine (MSU) test is required to ensure the urine is sterile before treatment is undertaken.

What do I need to bring to surgery?

- All related imaging such as x-rays, CT scan or ultrasound
- Your usual medications

What happens in the operating room?

You will meet your anaesthetist prior to surgery who will take a thorough medical history. This person will be responsible for your safety whilst you are under general anaesthesia. The procedure will usually take 60 minutes and involves putting a rigid telescope into the drainage tube (ureter) of the kidney and fragmenting the stone with laser. A temporary urinary stent may be left in place for a short period to ensure the kidney drains without risk of blockage.

What are the risks?

This is generally considered a very safe operation. Specific risks to surgery include: infection, minor bleeding, and perforation of the ureter (1 in 200).

What to expect afterwards?

It is normal to feel the need to pass urine frequently and notice blood in the urine following surgery. This will settle over the ensuing days. An oral over the counter medication called Ural can reduce the stinging sensation during urination. You will sometimes have a temporary urinary stent (*see urinary tract stent info sheet*) following surgery which allows the swelling in the ureter to settle from where the stone was located. The stent maybe attached to a string coming out from the urethra allowing ease of removal (in the doctor's office) when no longer required. Care needs to be taken so as not to accidently dislodge the stent by pulling on the string or catching it on your underwear.

Follow-up

You will be advised after surgery the necessary follow-up arrangements. A script for oral antibiotics will need to be taken for 5 days to prevent infection. You need to drink at least 8 glasses of water a day (2.5L/day). Simple analgesics such as Panadol and Nurofen are usually all that is required, occasionally stronger medication (eg. Panadeine Forte) may be necessary. You will not be able to drive for at least 24 hours after surgery as you have had a general anaesthetic.