



PROFESSOR

**Nathan
Lawrentschuk**

MBBS FRACS FUSANZ PhD

UROLOGIST UROLOGIC ONCOLOGIST ROBOTIC SURGEON

Suite 118, 1st Floor, 55 Flemington Road, North Melbourne

www.nathanlawrentschuk.com.au

info@nathanlawrentschuk.com.au

(03) 9329 1197

Ureteroscopy and Laser Lithotripsy

Laser lithotripsy is a minimally invasive procedure used to break up stones in the urinary tract using a laser. It is commonly performed **during a ureteroscopy** and can treat stones in the kidneys, ureters (the tubes that carry urine from the kidneys to the bladder), bladder, and urethra (the tube through which urine exits the body).

Why is laser lithotripsy performed?

Laser lithotripsy is used to:

- Treat stones that are **too large, hard, or poorly located** to be treated with **shock wave lithotripsy (ESWL)**.
- **Manage multiple stones** or stones in patients who are pregnant or on blood-thinning medications.
- Remove stones in patients who have failed other non-invasive treatments.

It can provide a higher success rate than shock wave lithotripsy (ESWL) and allows for direct targeting of the stone.

What does an laser lithotripsy involve?

The procedure is usually performed in hospital under **general anaesthesia**.

- A thin, **flexible ureteroscope** (small camera) is inserted via the urethra to locate the stone
- A **laser fibre** is passed through the scope to break the stone into smaller fragments
- The fragments are either **removed or allowed to pass naturally**
- A **temporary plastic tube (ureteric stent)** will be placed to help urine and fragments pass

Laser lithotripsy typically takes 1–2 hours and is usually done as **day surgery**. Please ensure you have arranged for someone to take you home as you will be unable to drive.

Alternative treatment options

Alternative treatment options include:

- **Shock wave lithotripsy (ESWL)**: Non-invasive, but less effective for hard or large stones
- **Medical management**: May be appropriate for small, asymptomatic stones

Prof Lawrentschuk will recommend the most suitable option based on the size, location, and type of stone.

Before your procedure

You will be contacted 1–2 weeks prior to your scheduled procedure with specific fasting instructions and hospital admission details. You will also receive a link to complete your online admission forms.

It is important to advise the rooms if you are taking any **blood thinners** or any prescribed medications for **diabetes or weight loss purposes**. The rooms can be contacted on (03) 9329 1197.

Following your procedure

Recovering at home

You should plan to **rest** at home following your procedure. During this time, **avoid strenuous activity, heavy lifting, and vigorous exercise**. Over-the-counter painkillers can usually manage any pain.

It is common to notice some blood in the urine for 2-3 days following your procedure. It is important to drink plenty of water to ensure the stone fragments can be passed if they were not removed.

Patients also typically experience:

- Mild pain or burning when urinating for a few days.
- Urinary urgency or discomfort until the stent is removed.
- Small stone fragments visible in the urine.

These symptoms usually resolve with time. Ensure you follow all post-operative care instructions provided by your medical team/Prof Lawrentschuk. Most patients can **safely resume driving 24 hours** after the procedure.

Return to work is generally possible within **1-2 days** or whenever you feel comfortable.

Possible risks

Common (1 in 2 to 1 in 10):

- Pain or discomfort during urination
- Blood in the urine (haematuria)
- Mild stent-related urinary symptoms

Occasional (1 in 10 to 1 in 50):

- Urinary tract infection (UTI)
- Ureteric injury or perforation
- Stone fragments becoming stuck and causing obstruction

Rare (1 in 50 to 1 in 250):

- Persistent pain
- Severe bleeding
- Recurrent stone formation

When to seek help

Please contact **Prof Lawrentschuk's rooms** on (03) 9329 1197 or attend your nearest **Emergency Department** if you experience:

- Blood in your urine (red or dark red) that lasts longer than 2-3 days.
- Fever above 38°C, chills, or severe abdominal pain and/or nausea.
- Burning when urinating that lasts longer than 1-2 days.

Follow-up and monitoring

The rooms will schedule you in for a **stent removal procedure 2 weeks following your laser lithotripsy**. If you return home and are yet to receive information regarding this removal, please call us on (03) 9329 1197.

You will then usually have a follow-up appointment with Prof Lawrentschuk within **6-8 weeks** after surgery to assess your recovery and evaluate the need for further treatment or medication.