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# Extracorporeal Shock Wave Lithotripsy (ESWL)

**Extracorporeal Shockwave Lithotripsy (ESWL)** is a non-invasive procedure used to break kidney stones into smaller fragments using targeted shockwaves. This enables the stone pieces to be passed more easily through the urinary tract. It is most commonly used when stones are located within the kidney or upper ureter.

## Why is ESWL recommended?

ESWL may be recommended to:

- **Break up kidney stones** that have not yet caused symptoms, helping to prevent pain and obstruction.
- **Treat stones** that have begun to move into the ureter (the tube between the kidney and the bladder).

It provides a non-surgical option for managing suitable stones and is often considered when the stones are of appropriate size and location.

## What does an ESWL involve?

An **ESWL** is typically performed under **general anaesthetic**, meaning you will be completely asleep for the procedure. However, no incisions are made - it is a completely non-invasive procedure.

An **overview** of the procedure is given below:

- Imaging (X-ray or ultrasound) is used to locate the stone.
- Shockwaves are transmitted through the skin on your back and focused on the kidney stone.
- Up to 4000 shockwaves may be used in a single session.
- These break the stone into smaller fragments that can then pass naturally in your urine over the following days.

The procedure is usually performed as **day surgery**. You can return home the same day, provided you do not drive yourself.

## 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**. Any pain can usually be managed by over the counter painkillers.

It is common to notice some blood in the urine for a few days. It is important to drink plenty of water to ensure the stone fragments can be passed.

### Patients also typically experience:

- Mild back soreness and a small graze at the treatment site are common.
- Some discomfort as stone fragments pass down the ureter.
- 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**.

## Possible risks

### Common (1 in 2 to 1 in 10):

- The stone may not be fully fragmented or cleared.
- Bruising, grazing, or blistering of the skin where shockwaves entered the body.

### Occasional (1 in 10 to 1 in 50):

- Larger fragments may obstruct the ureter, causing pain and possibly requiring another procedure (e.g. ureteric stent).
- Urinary tract infection.
- Temporary irregular heart rhythm during the procedure.

### Very rare (< 1 in 250):

- Significant kidney trauma causing bleeding, rarely requiring another procedure or removal of the kidney.
- Injury to nearby organs (lung, liver, spleen, bowel), potentially needing intervention.
- Rib fracture.
- Pancreatitis (inflammation of the pancreas).

## When to seek help

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

- Severe pain that is not controlled with painkillers.
- Fever above 38°C, chills, or severe abdominal pain and/or nausea.

## Follow-up and monitoring

You will 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.