

## Procedure information

# Percutaneous Nephrolithotomy

## What is percutaneous nephrolithotomy (PCNL)?

A percutaneous nephrolithotomy is a minimally invasive (keyhole) procedure to remove kidney stones via a small incision in the back.

PCNL is typically reserved for the management of large kidney stones.

## Why is a PCNL required?

PCNL is required to remove larger, multiple or complex kidney stones.

## What does a PCNL involve?

PCNL is performed under general anaesthetic (completely asleep).

The surgery generally takes between 1 to 3 hours.

It is a minimally invasive procedure where a small cut is made in the back to access the kidney.

A hollow tube is passed through the skin into the kidney, this allows other instruments to be inserted into the kidney to remove the stones.

To visualise the stones, ultrasound or x-ray is used during the operation. Instruments are used to visualise, fragment and remove the stones via the tube.

At the end of the procedure, you may be left with a drainage catheter (nephrostomy) inserted into the kidney, which exits the back and drains into a bag. Alternatively, you may have a stent (a plastic tube that is inserted into the ureter (the tube from the kidney to the bladder)). These tubes assist with the drainage of urine from the kidney. If you have a nephrostomy tube it is usually removed prior to you going home. A stent may be left in for 2-6 weeks. It will need to be removed later and arrangements will need to be made for this.

## What is the recovery after a PCNL?

PCNL is performed in theatre and requires a one to two nights stay in hospital.

You may experience pain in the kidney region and incision site. You will be given instructions for pain relief to take after the procedure.

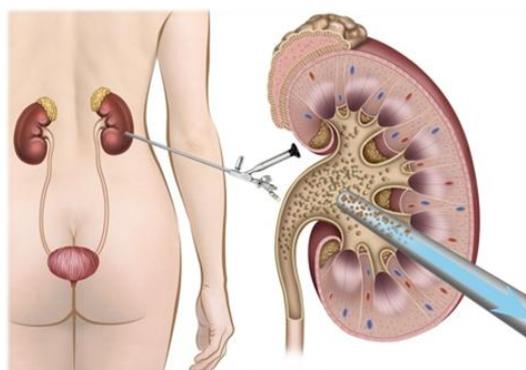
You may go home with a nephrostomy tube in place. You will be taught how to care for this and empty the bag prior to discharge.

You may shower following the procedure. Your dressing will be waterproof.

You may have blood in the urine for about a week after the procedure or for the period the stent is left in.

You can drive when you are comfortable to do an emergency stop. This may be up to two weeks following your surgery.

You can usually return to work when you feel comfortable to do so. This may be around a week following surgery.



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## What are the risks of a PCNL?

The risks of this procedure include (but are not limited to):

### Common risks (1/2 to 1/10):

- Blood in the urine or nephrostomy drain.
- Temporary insertion of a bladder catheter.
- Recurrent (new) stone formation over the next 10 years requiring further management.
- Urinary tract infection requiring antibiotics.

### Occasional risks (1/10 to 1/50):

- Sepsis (infection) requiring antibiotics.
- Residual stones requiring further surgery.

### Rare risks (1/50 to 1/250):

- Injuries to the kidney requiring a nephrectomy (removal of kidney) or injury to other organs.
- Heavy bleeding from the kidney requiring intervention to stop.
- Inability to access your kidney/stone requiring further surgery or an alternative treatment.
- Infection to the incision site in your back.

### Other uncommon or very uncommon risks of surgery and anaesthesia include:

- Blood clots in the legs (Deep vein thrombosis (DVT)) or lungs (Pulmonary embolus).
- Chest infection (Pneumonia).
- Heart attack.
- Stroke.
- A serious allergic reaction (Anaphylaxis).
- Death.

## What are the alternative treatment options?

- Shock wave lithotripsy (ESWL).
- Ureteroscopy.
- Nephrectomy/ Partial nephrectomy.

**This is general information only. Please consult your doctor for more information and treatment options.**

**For appointments and enquiries please contact 07 3830 3300.**