

WHO IS SUITABLE FOR PERCUTANEOUS NEPHROLITHOTOMY (PCNL)?

Those experiencing symptoms related to kidney stones including

- Back or flank pain
- Sweating and nausea
- Blood in the urine

Those who have tried other non-surgical treatments that have not worked

Those who have kidney stones that are too large to pass without intervention

Percutaneous nephrolithotomy (PCNL) is generally reserved for stones larger than 1.5cm, multiple or complex stones (staghorn)

WHAT ARE THE ADVANTAGES OF PERCUTANEOUS NEPHROLITHOTOMY (PCNL)?

Only a very small single skin incision (~1cm) is required for keyhole access

Gives the surgeon a direct view of the urinary tract

Very large stones are able to be cleared efficiently in one procedure

Stone fragments can be retrieved and analyzed to determine composition – this can assist in developing future stone prevention strategies

Can be performed as combined approach incorporating ureteroscopy with 2 surgeons for complex stones

HOW IS PERCUTANEOUS NEPHROLITHOTOMY (PCNL) PERFORMED?



The procedure is performed under general anaesthetic and generally takes 1-2 hours to complete, depending upon the size, number and position of the stones

Under xray guidance, a needle is passed directly into the kidney; the tract is then gently dilated to allow the insertion of a temporary sheath to allow direct access to the stone

A small telescopic instrument (nephroscope) is passed directly into the kidney

The stone is located and fragmented or can be disintegrated with holmium laser or ultrasound

Stone fragments are then removed by the surgeon

In most cases, a temporary soft rubber tube (nephrostomy) is left in place overnight to allow urine drainage and to minimize bleeding

In other cases, a temporary internal stent may be placed in the ureter in order to ensure good urine drainage

WHAT TO EXPECT AFTER PERCUTANEOUS NEPHROLITHOTOMY (PCNL)?



Most patients will remain in hospital for one night
If you have a stent in place, you will need to return to have it removed after a week or so – this is a very minor procedure performed under sedation with a small telescope (flexible cystoscope)

It is not uncommon to see some blood in the urine in the days following the procedure. You may also feel the urge to urinate frequently if you have a stent in place

Most patients will have some discomfort in the flank area for a few days following the procedure
The risk of major bleeding or kidney damage is uncommon

It is important to drink plenty of water to help with flushing the stone fragments out through the urine
Normal light activities can be commenced within 2-3 days

You should avoid any strenuous activity for 4 weeks following this procedure to minimize the chance of bleeding

PERCUTANEOUS NEPHROLITHOTOMY (PCNL) OUTCOMES



Percutaneous nephrolithotomy (PCNL) is a safe and effective procedure for the treatment of large or complex kidney stones

Resolves the common symptoms associated with kidney stones

Percutaneous nephrolithotomy (PCNL) allows the vast majority of patients to be cleared of stones with one procedure

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