

Patient information

Percutaneous Nephrolithotomy (PCNL)

Urology Department

Your surgeon has advised you to have your kidney stone or stones removed using Percutaneous Nephrolithotomy (PCNL). This leaflet explains what to expect from the procedure.

What is a Percutaneous Nephrolithotomy (PCNL)?

A percutaneous nephrolithotomy (PCNL) is an operation to remove a stone or stones from your kidney. Percutaneous means 'through the skin' and nephrolithotomy means 'taking stones out of the kidney'. It is a form of keyhole surgery using telescopes and specialised equipment.

What are the benefits of having PCNL?

The aim is to remove the kidney stones. Larger stones or ones that are difficult to shatter with shock wave lithotripsy (SWL) or laser can be broken down and removed from the kidney. The stone can be analysed which may help prevent/treat any stone recurrence.

What sort of anaesthetic will be given to me?

You will be given a general anaesthetic. General anaesthesia is drug-induced unconsciousness: it is always provided by an anaesthetist, who is a doctor with specialist training.

Unfortunately, general anaesthesia can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain. Complications are very rare, but can cause lasting injury: they include awareness, paralysis and death.

There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

The risks of anaesthesia and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well. For more information, please ask for a copy of the leaflet "**You and Your Anaesthetic**" (PIF 344).

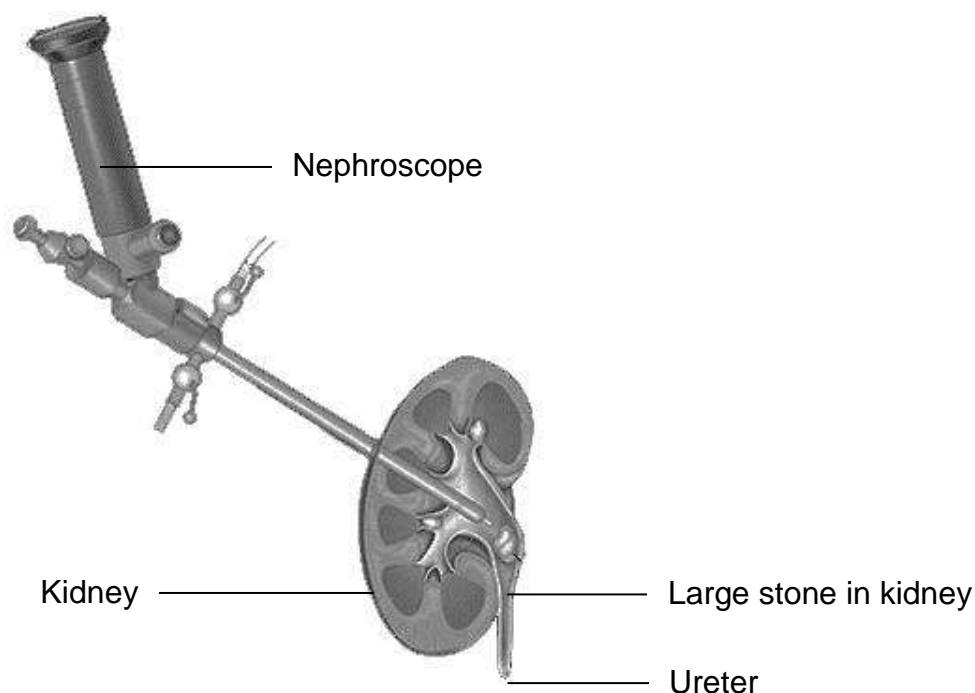
You will be given an opportunity to discuss anaesthetic options and risks with your anaesthetist before your surgery.

If you are worried about any of these risks, please speak to your Consultant or a member of their team.

What happens during the procedure?

The first step involves a telescopic examination of the bladder (cystoscopy), after which a fine hollow tube (catheter) is passed into the pipe which carries urine from the kidney to the bladder (ureter). A dye is then passed up the catheter and this helps us to identify where the stones are located.

For the next step of procedure, you will be turned lying face down. A needle is passed through the skin into the kidney under X-ray guidance. This track will then be stretched up around the needle so that an operating telescope (nephroscope) can be introduced into the kidney (see picture below). Once the stone has been identified it will be broken up and removed.



What should I expect after my operation?

You will have a tube draining from your kidney (nephrostomy) and an indwelling urinary catheter. These will be removed as you recover from the surgery – usually one to two days after the operation.

An X-ray of the tube in your kidney (a nephrostogram) may be taken before removing this tube. Sometimes, the surgeon may leave a stent in your ureter in order to promote drainage from the kidney. This is usually removed under local anaesthetic in two to four weeks.

What are the risks of having a PCNL?

Percutaneous nephrolithotomy is a safe procedure, but there are some risks and complications that can arise, as with any surgical treatment.

Common Risks (Greater than one in ten)

- Blood in the urine; this is temporary and should clear.
- Infection; this may be at the small wound site or in the urine.
- Pain; if you experience any pain after the procedure, do not hesitate to request painkillers.

Occasional Risks (Between one in ten and one in fifty)

- More than one puncture site may be required during the procedure.
- Further treatment required to remove residual stones.
- Recurrence of new stones.

Rare Risks (less than one in fifty)

- Kidney bleeding which requires blood transfusion or further surgery.
- Damage to other organs; the lungs, bowel, spleen or liver which may require further surgery.
- Kidney damage or infection.
- Leakage of urine from the kidney resulting in collection in the abdomen.

Are there any alternatives available?

There are other treatments available to remove kidney stones – Shock Wave Lithotripsy (SWL) and ureteroscopy.

Your surgeon will discuss with you the most appropriate treatment for your stones.

What will happen if I decide not to have treatment?

Not all kidney stones cause symptoms. However, they do often cause pain and infection and all have the potential to grow which may cause more problems in the long term and can cause damage to your kidney.

Going home

You will usually be ready to go home about three or four days after your operation providing you have an uneventful post-operative recovery.

Pain relief and medication

The nursing staff will advise you about painkillers before you leave the hospital. Please tell the nurses what painkillers you have at home.

Your wound

Your wound on your back is approximately one centimetre in diameter. There may be slight ooze from the wound initially but this should dry up within 48 hours. Try and keep your wound dry until it heals. Wound advice will be given on discharge.

Getting back to normal

- You may see blood in your urine – drink plenty of fluids – up to two litres/four pints of fluid per day.
- You may feel tender around the site of your operation; take your painkillers regularly.
- Avoid lifting and straining for about a month after your operation, allow yourself time to heal.

- Avoid constipation – some painkillers can cause this. Eat a healthy diet including fresh fruit, vegetables and fibre.
- Ensure a healthy balance between activity and rest – don't over-do it but don't take to your bed either as prolonged bed rest brings its own complications.
- If you drive – only start driving again when you feel you could perform an emergency stop if it was needed. You should also discuss this with your insurance company.

Returning to work

If you are employed you should discuss with your surgeon as to how long you should convalesce before returning to work. This may also depend upon the type of work that you do.

Further appointments

You will be reviewed in the outpatient clinic. An X-ray may be required to check for any residual or recurring stone.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

For general queries telephone the Urology Centre

Tel: 0151 282 6809

Text phone number: 18001 0151 282 6809

Sister Pat Kelly

Stone Nurse Practitioner

Tel: 0151 282 6804

Tel: 0151 706 2000 Bleep 5026 via Royal Liverpool Hospital Switchboard

Text phone number: 18001 0151 282 6804

For clinical questions specific to your case, telephone the secretary of your Urology Consultant.

Mr Calvert's Secretary

Tel: 0151 282 6886

Text phone number: 18001 0151 282 6886

Mr Lynch's Secretary

Tel: 0151 706 3592

Text phone number: 18001 0151 706 3592

Visit the British association of Urological Surgeons website at <http://www.baus.org.uk/patients>

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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