

Percutaneous Nephrolithotomy (PCNL)

This leaflet is designed to give you information on why this procedure may be suitable for you, and what to expect from it. It outlines the advantages and possible risks. It will hopefully answer the questions commonly raised. Your consultant can give you more detailed information if you are not sure about anything.

What is a Percutaneous Nephrolithotomy?

A Percutaneous Nephrolithotomy (PCNL) is an operation to remove stones from the kidney. It is a form of keyhole surgery so is performed through a small cut in the skin. This means you will have a small scar afterwards. The procedure is carried under general anaesthetic (you are asleep).

Why do I need this operation?

PCNL is used for the treatment of stones in the kidney which are not suitable for other, less invasive treatments because they are too large, too hard or associated with abnormal kidneys. PCNL is a highly effective method of treating kidney stones. The success rate is between 75% and 99%.

What are the alternative treatments?

Your consultant will have discussed these with you before recommending PCNL. Alternative treatments include: external shock wave treatment, open surgical removal of the stones and observation.

What happens before the operation?

You should attend a pre-assessment appointment to assess whether you are well enough to undergo this procedure. This appointment will also give you the opportunity to ask any further questions prior to your admission.

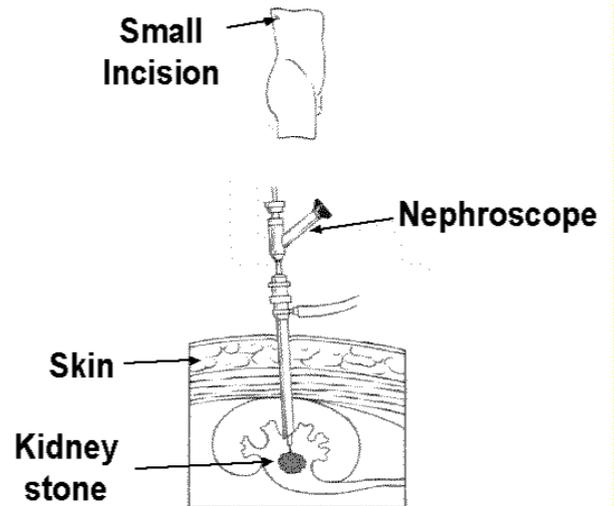
You will be admitted to the ward on the day of the operation. Your admitting nurse will show you the ward and organise any further tests needed.

On the morning of your procedure the anaesthetic team will visit and review you. Feel free to ask them about concerns or issues you may have in regard to being anaesthetised.

You will need to sign a consent form for surgery. Before you sign this, please ensure that you fully understand the procedure and its possible risks. If you have any questions or concerns, please talk to your surgical team.

How is the operation performed?

Using x-ray guidance, a radiologist (specialist in using x-rays/scanners) makes an access track down to the kidney through a small cut in the skin. A surgical telescope (nephroscope) is passed into the kidney and used to see your stone. The stone is then broken into small pieces which are removed. At the end of the procedure a drain called a nephrostomy tube may be left in the kidney. A fine tube called a stent which goes from the kidney down the ureter into the bladder may also be inserted. The fluid which comes out is likely to be blood-stained initially and tends to clear after a day or two. PCNL usually takes 1-2 hours. A urinary catheter will be inserted after the operation.



What happens after the operation?

Once your operation is over you will be woken and taken to the recovery department to be monitored by the staff there before being moved back to the ward. It is very important that if you feel pain or feel sick you let the staff know, as they will be able to give you appropriate medication.

While in bed after the operation you should move your feet and wriggle your toes to help promote circulation in your legs. This will reduce the risk of blood clots forming (venous thromboembolism). You will be able to eat and drink, after surgery, as soon as you feel like it. A few days after the procedure, the nephrostomy tube will be clamped and your catheter removed. Dye may be injected into the nephrostomy tube and an x-ray taken. Provided there is no blockage, the tube is then removed. If you have a stent, this will be removed under local anaesthetic in 4-6 weeks. It is important to drink plenty of fluids.

Your hospital stay may be between 1-4 days.

How much pain will I have?

Most patients having PCNL experience much less pain than after open surgery to remove kidney stones and tend to need much less pain medication. After one week, most are feeling no pain at all. You will be given regular tablets as well as stronger painkillers as and when you need them. Don't hesitate to ask for them, because if you are free from pain, you will be mobile more quickly.

Can I shower or bath?

Yes, but make sure that you rinse yourself thoroughly as soaps may irritate the area. Pat rather than rub yourself completely dry.

How much time should I take off work?

Most people take about 2 weeks off work. If your work involves lifting please speak to your consultant before leaving hospital. If you require a sick certificate please ask your nurse for this before your discharge.

What are the risks and complications of the anaesthetic and operation?

Common risks:

- Temporary haematuria (blood in the urine). This should clear.

Occasional risks:

- No guarantee of removal of all the stones and need for further operations.
- Occurrence of new stones.

Rare risks:

- More than one puncture site is required.
- Severe kidney bleeding requiring transfusion and/or surgical intervention.
- Damage to the lung/bowel/spleen/liver requiring surgical intervention.
- Kidney damage or infection needing further treatment.
- Allergic reaction to drugs.
- Absorption of fluids into the blood system causing strain in heart function.

The likelihood of complications increases in the following:

- Adults over 60 years of age.
- The overweight, smokers and heavy drinkers.
- Users of recreational drugs.

What happens when I am discharged home?

If you have to look after children you might find it useful to arrange some help for when you are discharged home. You may continue to have blood in your urine after going home. This will clear, but if the bleeding persists and becomes heavy you should contact your GP. You should also see your GP if the wound starts leaking.

You should drink two to three litres of water each day (several glasses) to help stop new stones forming. You will be sent an outpatients appointment to check on your progress following this operation.

Driving and activities

Driving following discharge is best avoided for two weeks. It is sensible to drive only when you feel that you can cope with traffic conditions and can do an emergency stop. Please also check with your insurance company before returning to drive.

Light walking is encouraged right after the procedure. After 2 weeks, jogging and aerobic exercise is permitted. Strenuous activity should be avoided for 2 weeks.

If you have any queries or concerns you would like to discuss, please do not hesitate to speak to the nursing or medical staff.

Useful numbers

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| Pre-Operative Assessment: | 0118 322 6546 |
| Hopkins Ward: | 0118 322 7771 |
| Radiology (X-ray) Department | 0118 322 7991 |
| Urology Clinical Admin Team (CAT3a) | 0118 322 8629 |
| Royal Berkshire Hospital: | 0118 322 5111 |
| West Berkshire Community Hospital: | 01635 273492 |

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