

Procedure information

Laparoscopic or robotic partial nephrectomy

What is a partial nephrectomy?

A partial nephrectomy is an operation to remove a mass from the kidney. Partial nephrectomy is usually performed as a minimally invasive surgery by using laparoscopic (keyhole) or robotic surgical instruments.

Why is a partial nephrectomy required?

Partial nephrectomy is usually performed for suspected kidney cancer ("renal cell carcinoma").

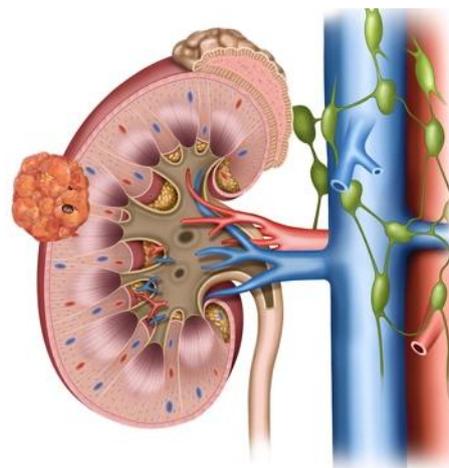
What does a partial nephrectomy involve?

Laparoscopic/robotic nephrectomy is performed in hospital under general anaesthetic (completely asleep).

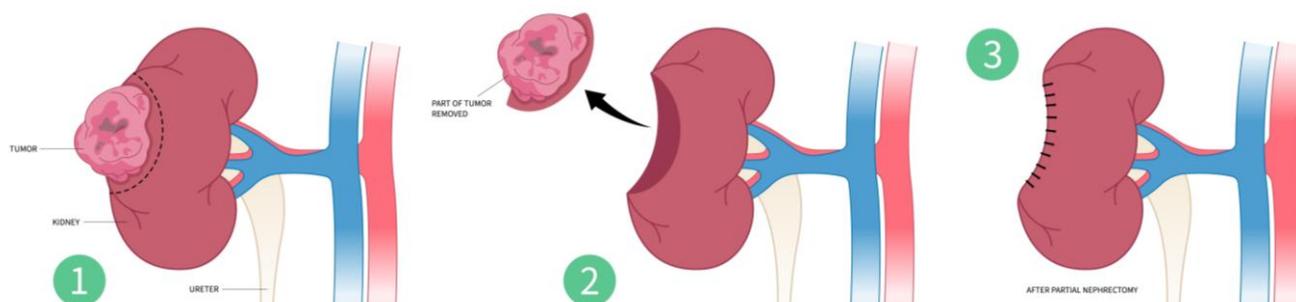
We inflate your abdominal cavity with carbon dioxide gas to create space to perform the operation.

We make 4 – 6 keyhole incisions in your abdomen through which we can insert the laparoscopic/robotic surgical instruments.

We separate your kidney from surrounding structures such as the bowel, liver, spleen, muscle, and fat. We then find the blood vessels supplying blood to your kidney and temporarily clamp them off.



A small mass in the right kidney



While the kidney's blood supply is clamped off, we cut the mass out of your kidney and close the defect with stitches.

We then unclamp the blood vessels to the kidney to restore the kidney's blood supply.

The tumour is removed through one of the keyhole incisions. The incisions are closed with dissolvable stitches or staples.

You will have a catheter (a tube draining urine from the bladder) for 1 – 2 days after the operation. You may have a drain (a plastic tube coming out of the abdomen) for a few days after the operation.

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What is the recovery after a partial nephrectomy?

You will usually be in hospital for 1 – 4 days after the operation.

You will have mild pain for several weeks after the operation. You will be given pain relief medication in hospital and at home to help control the pain.

Depending on your job, you can usually return to work 2 – 4 weeks after the operation.

You will usually be able to return to driving 2 – 4 weeks after the operation.

You won't be able to do vigorous exercise or heavy lifting for 6 – 8 weeks after the operation.

Are there side effects from having part of your kidney removed?

If you have two kidneys, there usually aren't any long-term effects from having part of one of your kidneys removed.

After the operation, you may need to make diet and lifestyle changes to reduce the risk of future kidney damage.

Your urologist and/or GP will monitor the function of your remaining kidney for several years after the operation. They will also check for other conditions, such as high blood pressure or diabetes, which can damage your remaining kidney.

What are the risks of a partial nephrectomy?

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

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

- Bloating and abdominal discomfort for several days after the operation.
- The bowels being slow to work after the operation.

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

- Bleeding during or after the operation requiring a blood transfusion or another operation/procedure to correct.
- Leakage of urine from the defect in the kidney requiring another operation/procedure to correct.
- Wound infection, urine infection, or chest infection requiring antibiotics.
- Sometimes during the operation we find it is not possible to remove only the mass and the whole kidney needs to be removed.
- Conversion from a keyhole operation to an open operation via a larger incision. This will prolong your recovery.
- Problems with wound healing, or a wound hernia.
- Scarring inside the abdomen (adhesions) which can cause blockage of the bowel.
- The mass in the kidney may be benign (non-cancerous).

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

- Severe infection inside the abdomen or in the blood stream (sepsis), requiring antibiotics and/or another operation/procedure to correct.
- Damage to another organ such as the bowel, liver, spleen, pancreas or lung, requiring another operation/procedure to correct.
- Skin, muscle, or nerve damage from positioning on your side during the operation.

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Very rare risks (<1/250):

- Kidney failure requiring dialysis or a kidney transplant. This is usually only a risk if you only have one kidney or you already have kidney disease.

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?

Alternative treatment options for the management of a suspected kidney cancer include:

- Radical nephrectomy - removal of the whole kidney.
- Surveillance of the renal mass.
- Biopsy of the kidney mass to confirm it is a cancer prior to partial nephrectomy.
- Ablation of the mass – destroying the tumour with hot or cold energy.
- Stereotactic radiotherapy – destroying the tumour with radiation therapy.

If I have a kidney cancer, will any other treatment be required?

In the majority of cases, small kidney cancers can be cured by removing the mass from the kidney, and no further treatment is required.

The mass is sent for further tests after the operation. The results from these tests will allow us to tell you how likely it is that the operation has cured the cancer.

You will need to have follow-up scans for several years after the operation to make sure the cancer doesn't return in the kidney or elsewhere in the body.

If the cancer does return, further treatment may be required, such as nephrectomy (removal of the whole kidney) or immunotherapy (anti-cancer medications).

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

For appointments and enquiries please contact 07 3830 3300.