

Procedure information

Laparoscopic or robotic nephroureterectomy

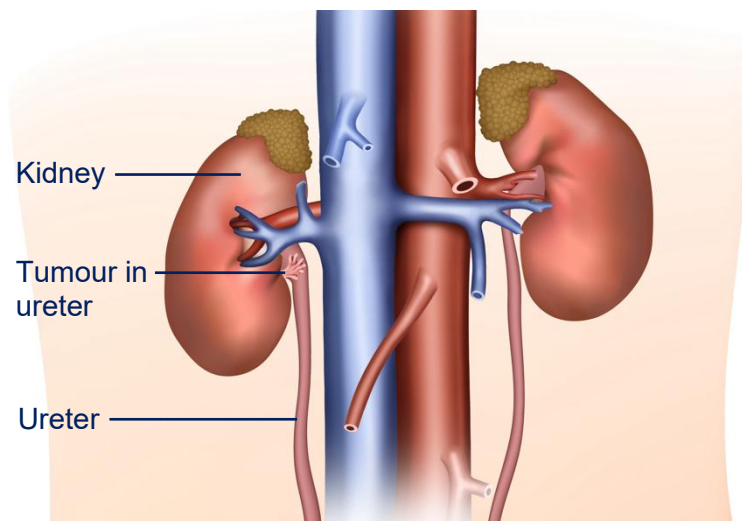
What is a nephroureterectomy?

A nephroureterectomy (also called a radical nephroureterectomy) is an operation to remove the kidney and the ureter - the tube that carries urine from the kidney to the bladder.

Why is a nephroureterectomy required?

A nephroureterectomy is recommended when you have been diagnosed with upper urinary tract urothelial carcinoma (UTUC), which is a cancer arising from the cells lining the kidney's internal collecting system or the ureter.

The aim of the operation is to cure the cancer to prevent it spreading along the lining of the urinary tract or elsewhere in the body.



What does a laparoscopic/robotic nephroureterectomy involve?

Laparoscopic/robotic nephroureterectomy is performed in hospital under general anaesthetic (completely asleep). The operation typically takes 3 to 5 hours.

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

We make 5 to 7 keyhole incisions in your abdomen through which we insert laparoscopic or robotic surgical instruments and a camera.

We carefully separate the kidney and ureter from surrounding structures including your bowel, liver, spleen, muscle, and fat. We then seal and divide the blood supply to the kidney.

We trace the ureter all the way down to its entry point in the bladder. We remove the ureter together with a small cuff of the bladder wall.

The kidney and ureter are removed through one larger (10 to 15 cm) incision in your lower abdomen.

The incisions are closed with dissolvable stitches or staples.

You may have a drain (a plastic tube coming out of the abdomen) for a few days after the operation.

What is the recovery after a laparoscopic/robotic nephroureterectomy?

You will usually be in hospital for 3 to 5 days after the operation.

You will have a catheter after the operation. The catheter will drain urine into a bag. The bag can be secured to your leg and can be concealed under your clothes. The catheter will usually be removed 5 to 10 days after the operation.

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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 3 to 6 weeks after the operation.

You will usually be able to return to driving 3 to 4 weeks after the operation, once you are off strong pain medication and can safely perform an emergency stop.

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

Are there side effects from having only one kidney?

Provided your other kidney works normally, there are usually no long-term effects from having only one kidney.

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

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.

Very rarely, you may need renal dialysis or a kidney transplant if your remaining kidney stops working normally.

Will I need any additional treatment after the operation?

The kidney and ureter are sent for detailed pathological analysis after the operation. These results will tell us how advanced the cancer was and whether any further treatment, such as chemotherapy, is recommended.

You will need regular follow-up including CT scans and cystoscopy (a camera examination of the bladder) for several years after the operation to monitor for cancer recurrence.

What are the risks of a laparoscopic/robotic nephroureterectomy?

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.
- Discomfort or irritation from the urinary catheter while it remains in place.

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

- Wound infection, urine infection, or chest infection requiring antibiotics.
- 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.
- Urine leak from the bladder repair, which may require prolonged catheterisation or further intervention.
- Recurrence of urothelial cancer in the bladder or elsewhere in the body, requiring further treatment.

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

- Bleeding during or after the operation requiring a blood transfusion or another operation/procedure to correct.
- 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 during the operation.

Very rare risks (<1/250):

- Kidney failure in the remaining kidney requiring dialysis or a kidney transplant.

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 upper urinary tract urothelial carcinoma include:

- Nephroureterectomy via an open approach – a larger incision but may be preferred in certain circumstances.
- Distal ureterectomy – for tumours confined to the lower ureter, only the affected segment of ureter and bladder cuff may be removed while preserving the kidney.
- Endoscopic management (ureteroscopy and laser ablation) – suitable for selected low-risk cancers, or in patients who have a single kidney or poor kidney function. This approach requires more intensive and frequent surveillance.
- Instillation of chemotherapy or BCG directly into the upper urinary – may be used in addition to endoscopic management in selected cases.
- Active surveillance – monitoring without immediate surgery may be considered in selected patients with low-risk cancer or other significant health problems.

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

For appointments and enquiries please contact 07 3830 3300.