Laparoscopic Radical Nephroureterectomy
Urology
Patient Information Leaflet
Nephroureterectomy

Your surgeon has recommended that you have a nephroureterectomy. We hope that this leaflet answers any questions that you may have about your operation.

What is a nephroureterectomy?

A nephroureterectomy is the surgical removal of a kidney and ureter (tube which drains urine from the kidney). The kidneys are a pair of organs which lie in the posterior (back) part of the abdomen, one on either side of the vertebral (spinal) column. They are about 11cm in length and 5cm wide and weigh about 150 grams. The right kidney usually lies slightly lower than the left. They are described as being bean shaped and dark red in colour. Each kidney is enclosed in a capsule of fibrous tissue.

Function of the kidney

The function of the kidney is to form urine by extracting the waste products from the blood, which then passes down the ureters into the bladder for excretion.

The kidneys are vital to a person’s health because they are responsible for maintaining correct water content in the body, disposal of waste material and maintaining electrolyte balance (salt content in the body).

What happens when one kidney is removed?

If one kidney is removed, the remaining kidney is able to do the work of two as long as it is healthy.
What is the evidence base for this information?

This leaflet includes advice from consensus panels, the British Association of Urological Surgeons, the Department of Health and evidence-based sources. It is, therefore, a reflection of best urological practice in the UK. It is intended to supplement any advice you may already have been given by your GP or other healthcare professionals. Alternative treatments are outlined below and can be discussed in more detail with your Urologist or Specialist Nurse.

What does the procedure involve?

It involves removal of the kidney (and surrounding fat) for suspected cancer of the kidney. It requires the placement of operating instruments into your abdominal cavity using 4-5 small incisions. The lower ureter is removed at the same procedure.

What are the alternatives to this procedure?

Observation, chemotherapy, open surgery, telescopic destruction of the tumour (in some cases).

What should I expect before the procedure?

You will be admitted on the morning your surgery. Prior to your admission date, you will receive an appointment for pre-assessment to assess your general fitness, to screen for the carriage of MRSA and to perform some baseline investigations.

After admission, you will be seen by members of the surgical team which may include the Consultant, Specialist Registrar, House Officer or Named Nurse. You will be asked not to eat or drink for 6 hours before surgery. You will be able to drink clear fluids until up to 2 hours before your operation. The ward staff will give you more specific guidance on when you can eat and drink when you are admitted.

You will be given an injection under the skin of a drug (Clexane) which, along with the help of elasticated stockings provided by the ward, will help to prevent thrombosis (clots) in the veins of your legs during and after surgery.

Please be sure to inform your surgeon in advance of your surgery if you have any of the following:

- An artificial heart valve
- A coronary artery stent
- A heart pacemaker or defibrillator
- An artificial joint
- An artificial blood vessel graft
- A neurosurgical shunt
- Any other implanted foreign body
- A regular prescription for Warfarin, Aspirin or Clopidogrel (Plavix ®)
- A previous or current MRSA infection
- A high risk of variant-CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone)

At some stage during the admission process, you will be asked to sign the consent form giving permission for your operation to take place, showing you understand what is to be done and confirming that you wish to proceed. Please ensure that you are given the opportunity to discuss any concerns and to ask any questions you may still have before signing the consent form.

**What happens during the procedure?**

Normally, a full general anaesthetic will be used and you will be asleep throughout the procedure. Your anaesthetist will discuss the anaesthetic options with you before your surgery.

The kidney and most of the ureters are usually dissected free through several keyhole incisions. The lower ureter is disconnected either using a telescope through the bladder or with a separate incision into the lower abdomen. A bladder catheter is normally inserted post-operatively to monitor urine output. A drainage tube will sometimes be placed through the skin into the bed of the kidney, to drain fluid from the site of the operation.

**What happens immediately after the procedure?**

In general terms, you should expect to be told how the procedure went and you should:

- Let the staff know if you are in any discomfort
- Be told what you can and cannot do
- Feel free to ask any questions or discuss any concerns with the ward staff and members of the surgical team
- Ensure that you are clear about what has been done and what should happen next

You will be given fluids to drink from an early stage after the operation and you will be encouraged to mobilise early to help prevent blood clots forming in the veins of your legs. The catheter will need to remain in place for up to 10-14 days to allow time for the bladder to heal. Your expected length of stay in hospital is 1-2 days, i.e. you will be able to go home a day or two after your operation.

**Are there any side effects?**

Most procedures have a potential for side effects. You should be reassured that, although these complications are well recognised, the majority of patients do not suffer any problems after such a procedure.
Common (greater than 1 in 10)
- Temporary shoulder tip pain
- Temporary abdominal bloating
- Temporary insertion of a bladder catheter and wound drain
- Recurrence of disease elsewhere in the urinary tract, which requires regular telescopic examinations of the bladder for follow-up

Occasional (between 1 in 10 and 1 in 50)
- Bleeding, infection, pain or hernia of the incision requiring further treatment
- Need for additional treatment for cancer after surgery

Rare (less than 1 in 50)
- Entry into lung cavity requiring insertion of a temporary drain
- Recognised (or unrecognised) injury to organs/blood vessels requiring conversion to open surgery (or deferred open surgery)
- Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack)
- The histological abnormality may eventually turn out not to be cancer
- Persistent urine leakage from the bladder requiring prolonged catheterisation or further surgery

Hospital acquired infection
- Colonisation with MRSA (0.9% - 1 in 110)
- Clostridium difficile bowel infection (0.2% - 1 in 500)
- MRSA bloodstream infection (0.08% - 1 in 1250)

The rates for hospital acquired infection may be greater in high-risk patients e.g. with long term drainage tubes, after removal of the bladder for cancer, after previous infections, after prolonged hospitalisation or after multiple admissions.

What should I expect when I get home?

By the time of your discharge from hospital, you should:
- Be given advice about your recovery at home, including when to resume normal activities such as work, exercise, driving, housework and sexual intimacy
- Be given a contact number if you have any concerns once you return home
- Know when your follow-up will be and who will do this (the hospital or your GP)
- Ensure that you know when you will be told the results of any tests done on tissues or organs which have been removed.

When you leave hospital, you will be given a draft discharge summary of your admission. This holds important information about your inpatient stay and your operation. If you need to call your GP for any reason or to attend another
hospital, please take this summary with you to allow the doctors to see details of your treatment. This is particularly important if you need to consult another doctor within a few days of your discharge.

It will be at least 14 days before healing of the wound occurs but it may take up to 6 weeks before you feel fully recovered from the surgery. You may return to work when you are comfortable enough and your GP is satisfied with your progress.

Many patients have persistent twinges of discomfort in the wounds which can go on for several months.

**What else should I look out for?**

If you develop a temperature, pain in your abdomen, increased redness, throbbing or drainage at the site of the operation, you should contact our helpline on 01384 244125.

**Are there any other important points?**

It will be at least 14-21 days before the pathology results on your kidney are available. It is normal practice for the results of all biopsies to be discussed in detail at a multidisciplinary meeting before any further treatment options are discussed with you. You and your GP will be informed of the results after this discussion.

An outpatient appointment will be made for you 4-6 weeks after the operation, when we will be able to inform you of the pathology results and give you a plan for follow-up.

Once the results have been discussed, it may be necessary for further treatment but this will be discussed with you by your Consultant or Specialist Nurse.

You will usually need to undergo regular bladder inspections to check that the growth which involved your kidney is not affecting the bladder lining.

**Driving after surgery**

It is your responsibility to ensure that you are fit to drive following your surgery. You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than 3 months after your surgery and may affect your ability to drive. You should, however, check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.
Is there any research being carried out in this area?

Before your operation, your surgeon or Specialist Nurse will inform you about any relevant research studies taking place and, in particular, if any surgically-removed tissue may be stored for further study. If this is the case, you will be asked if you wish to participate and, if you agree, to sign a special form to consent to this.

All surgical procedures, even those not currently the subject of active research, are subjected to rigorous clinical audit so that we can analyse our results and compare them with those of other surgeons. In this way, we can learn how to improve our techniques and our results; this means that our patients will get the best treatment available.

Medication

Please make sure before you come into hospital you have enough of your regular medication to take when you get home as it’s unlikely that the medication prescribed by your GP or another hospital Consultant will be changed. Also please make sure you have a supply of painkillers to take when you get home. We recommend Paracetamol which can be purchased in pharmacies or supermarkets, alternatively whatever painkillers you normally take. Getting medication from the hospital pharmacy can sometimes take a long time as they are very busy and this will delay your discharge.

Who can I contact for more help or information?

Hospital Contact Numbers
If you have any questions or are unsure about any of the information provided in this booklet, please contact a member of our Urology team on one of the numbers listed below.
Urology Nurse Specialists:-
Monday – Friday 08:00 – 16:00
Tel: 01384 456111 Extension 2873 or Mobile 07787512834
Out of Hours (16:00 – 08:00 Monday – Friday) and at weekends
Ward B6 Tel: 01384 244125
Ask to speak to the nurse in charge. If the nursing staff are unable to address your questions, they will suggest alternative contacts.

For further information on the internet, here are some useful sites to explore:

www.rcseng.ac.uk/patient_information
www.patient.co.uk
www.patientinformation.org.uk
www.rcoa.ac.uk (for information about anaesthetics)
www.prodigy.nhs.uk.PILS
www.nhsdirect.nhs.uk
www.besttreatments.co.uk
This Information can be made available in large print, audio version and in other languages, please call 0800 0730510.