

Patient information

Laparoscopic Nephrectomy

Urology Department – Royal Liverpool Hospital

Your doctor has advised you to have a laparoscopic nephrectomy (removal of a kidney). This leaflet explains what to expect when you have a laparoscopic nephrectomy

What is a nephrectomy?

A nephrectomy is the removal of a kidney. This can be performed for a variety of reasons and your consultant will have discussed the reason with you.

What is laparoscopy?

This is a technique to reach parts of the body without the use of large incisions. It is sometimes referred to as keyhole surgery. A narrow telescope and instruments are inserted through small incisions allowing surgery to be performed.

Are all patients suitable for laparoscopic nephrectomy?

No. From a kidney point of view, laparoscopic nephrectomy is best reserved for the smaller kidney tumours and benign conditions of the kidney. Inflammation around the kidney in such conditions as renal stones and infections can make the operation difficult and sometimes ill-advised.

From the patient's general health perspective, there are reasons why laparoscopic surgery should not be advised. These include generalised peritonitis (inflammation and infection of the abdominal cavity), severe airways or cardiac disease, uncorrectable bleeding disorders and morbid obesity.

What are the benefits of a nephrectomy performed laparoscopically?

The benefits include the following:

- Smaller skin incision - four one cm incisions rather than a 30 cm incision.
- Better view because of the magnification of the system.
- Less pain because the incisions are smaller and the muscles are parted rather than cut.
- Three to five days in hospital compared to a week or longer by open surgery.
- Less blood loss and reduced need for a blood transfusion.
- The ability to return to work in two to four weeks compared to six or more weeks after traditional open surgery.

There are no differences in the chance of cancer cure whether the surgery is performed by traditional open means or laparoscopically.

What are the disadvantages of a nephrectomy performed laparoscopically?

It is less easy to feel what is happening compared to open surgery. In some situations, the tactile feedback can be important and if that becomes true, it may be necessary to make an incision to carry on.

Other disadvantages include the increased length of time necessary for the operation, and the necessity for the surgeon to be experienced in laparoscopy before being able to perform the operation.

What are the benefits of this procedure?

To remove the diseased kidney.

What are the risks of having a laparoscopic nephrectomy?

Common (greater than 1 in 10)

- Temporary shoulder tip pain.
- Temporary abdominal bloating.
- Temporary insertion of a bladder catheter and wound drain.

Occasional (between 1 in 10 and 1 in 50)

- Bleeding requiring further surgery or blood transfusion.
- The need to convert from laparoscopic ('keyhole') to traditional open surgery by making a large skin incision.
- Involvement of injury to nearby local structures, i.e. blood vessels, spleen, liver, lung, pancreas and bowel requiring more intensive surgery.
- Infection, pain or hernia of incision requiring further treatment.
- If performed for suspected cancer, the histological abnormality may eventually turn out not to be cancer.
- Need for further therapy depending on diagnosis.

Rare (less than 1 in 50)

- Entry of air into the lung cavity requiring insertion of a temporary drain tube.
- Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, deep vein thrombosis, heart attack and death).
- Dialysis may be required to stabilise your kidney function if your other kidney functions poorly.

Are there any alternative treatments available?

There are alternative treatments available but all may not be suitable for you. Your consultant will discuss them with you if they are real options for you.

- Observation - your consultant would continue to monitor your condition closely and advise you accordingly.
- Partial removal of your kidney – this may not always be possible and would depend on the reason for you needing surgery.
- Embolisation / Radiofrequency Ablation – these are specialised techniques and would be discussed with you if suitable.

What will happen if I decide not to have treatment?

This would depend on why you are having your kidney removed, but not having the surgery could cause severe deterioration in your condition or overall health.

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.

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 Royal College of Anaesthetists Patient Information “You and Your Anaesthetic”.

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.

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.

Before your operation

If you are taking aspirin, clopidrogel or warfarin please inform your doctor well before you come into hospital, as you may need to stop them before your operation.

- You will be seen at a pre-assessment clinic before your admission. The anaesthetic team will assess your general fitness and book any tests you may require. These usually include blood tests, urine tests, a chest X-ray and an ECG heart tracing.

- You will usually come into hospital on the day of your operation for a stay of between three and four days.
- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 8.30 and 4.30 Monday to Friday. Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.
- Please bring any medication you take into hospital with you.
- Please bring in toiletries, nightwear and towels.
- You will be asked to remove jewellery - plain band rings can be worn but they will be taped.
- Please leave body piercings at home. False nails and nail polish will also need to be removed if worn.
- A member of your consultant's team will go through the whole procedure with you and ask you to sign a consent form.
- If your operation is in the morning you will be kept nil by mouth (have nothing to eat or drink) from midnight the night before. If it is in the afternoon you will be given a light early breakfast before being nil by mouth (have nothing to eat or drink).
- You will be given surgical stockings to wear to prevent blood clots.
- If you are on regular medication, you will be told to take this if necessary.
- You will be asked to put on a gown and disposable underwear.
- A bracelet with your personal details will be attached to your wrist.
- You may be prescribed some medication to take before your operation by the anaesthetist.
- A member of the nursing staff will give this to you.
- A nurse and porters will take you to the operating theatre.
- Your dentures, glasses or hearing aid can stay with you on your journey to the operating theatre.
- When you arrive in the theatre area, the ward nurse will leave you, and you will be asked to put on a disposable hat.
- You will then be taken to the anaesthetic room and a member of theatre staff will check your details with you.

What does the operation involve?

Small incisions are made in the side of the abdomen. Typically, there are about three or four incisions between 0.5 cm and two cm just below the ribs on the side of the problem. The operation lasts for about two hours to three hours.

The Instruments are passed through small holes (ports), the kidney is isolated from the rest of the body. At the end of the procedure, an incision is made in the lower abdomen (belly) below the belt line, which is five to seven cm in length, allowing the kidney to be removed from the body. The kidney will be sent to the laboratory to be examined.

What should I expect after my operation?

- You will wake up in the recovery ward attached to theatre, where you will stay for a short while, until you are taken back to your ward.
- You will have a drip (intravenous infusion) and a PCA machine (patient-controlled analgesia) or epidural to control your pain. You will be given oxygen through a facemask. You may have a drain attached to your wound. All of these will be removed within a few days.
- You will have a urinary catheter in so your urine output can be measured.
- You may feel a little 'groggy' when you return to the ward. Your nurse will monitor your pulse, blood pressure, respirations and temperature and urine output. He or she will also check your wound site regularly. If you feel any pain it is important you tell the nursing staff.
- The nursing staff will also advise you when you can start taking sips of water. Anaesthetics can make some people sick.
- If you feel sick we advise you not to drink until this feeling has passed. The nursing staff can offer you an injection to help this sick feeling go away.
- You will be allowed to drink again once your bowels start to work again or you are passing wind. You will be able to start drinking small amounts of fluid and when you are tolerating them, you will start on a light diet.
- The first time you get out of bed, please make sure you ask a nurse to be with you. This is in case you feel dizzy.
- Usually, people are up and about independently about one to two days after surgery.

Going home

Patients are usually discharged between three and four days following surgery.

Pain relief and medication

Tell the nursing staff if you have any painkillers at home. You will be given painkillers to take home if you need them.

Your wound

- The stitches or clips in the skin may have to be removed after ten to fourteen days. Sometimes the stitches will dissolve spontaneously.
- The ward staff will remove them, or if you have been discharged, the district nurse will do this.

Getting back to normal

Remember that you have just had an operation. It is normal to feel more tired than usual for a while afterwards. It could be two to three months before you get back to your normal self.

We advise you not to drive for at least four weeks after your surgery or until you can do an emergency stop. Do not do any heavy lifting or strenuous exercise for six weeks after your surgery.

Returning to work

Four weeks is the time people usually need off work following this operation. However, this will depend on the type of work you do and your general health.

Before you are discharged, a medical certificate (fit note) may be issued by your hospital doctor to cover the expected time off that you will need.

When can I travel after a nephrectomy?

It is prudent to wait at least three weeks after a nephrectomy before flying. Sometimes blood clots can develop in the leg veins which can sometimes be dangerous after a nephrectomy. Otherwise, the major limitations to travel involve physical discomfort.

Follow-up after a nephrectomy

We will see you four to six weeks after surgery in the outpatient clinic. At this time we will discuss the results of any tests carried out on your kidney following removal.

The clinic visit will also include routine blood test evaluating the function of your remaining kidney. You may also require scans and X-rays to ensure there is no recurrence of disease. These tests will be repeated each year after your operation.

Further Appointments

An appointment will be sent to your home for you to attend outpatients.

This appointment is usually for three months after your discharge.

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.

If you have accessed this patient information leaflet via a QR code, can you please take the time to complete a short questionnaire by clicking [here](#).

Further Information

For queries about your appointment, contact the hospital you have been referred to

Royal Liverpool Hospital

Urology Department

Tel: 0151 282 6877/6788

Text phone number: 18001 0151 282 6877/6788

Aintree Hospital

Patient Appointment Centre

Tel: 0151 529 4550

Text phone number: 18001 529 4550

For general queries telephone Urology Specialist Nurses at the Hospital you have been referred to.

Royal Liverpool Hospital

Urology Specialist Nurse

Tel: 0151 282 282 6800

Text phone number: 18001 0151 282 6800

Aintree Hospital

Urology Specialist Nurses

Tel: 0151 529 529 3484

Text phone number: 18001 0151 529 3484

For clinical questions specific to your case, telephone the secretary of your urology consultant.

Websites

Royal College of Anaesthetists

www.rcoa.ac.uk/patients

www.rcoa.ac.uk/sites/default/files/documents/2022-06/02-YourAnaesthetic2020web.pdf

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