

Laparoscopic Nephrectomy

Department of Urology

What is Laparoscopic Nephrectomy?

Laparoscopic Nephrectomy is a minimal invasive procedure or 'key-hole surgery' to remove a kidney which was traditionally done by the 'open' method. It involves the use of a three or four 'ports' or cuts about 1cm each which allows access to the organ. A thin tube with a light and a camera on the end and surgical instruments can then be passed through these incisions. The camera send pictures to a screen so that the surgeon can see the kidney and surrounding tissue and remove the kidney this way. One of the incisions is enlarged to enable the kidneys to be removed.

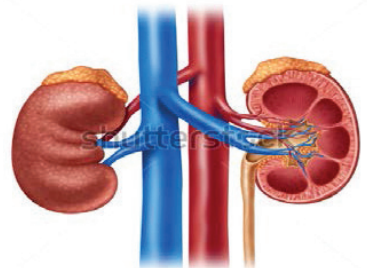
Why remove the kidney?

A nephrectomy can be performed for a number of reasons:

- 1 Chronic infection, which has resulted in scarring and loss of function of the kidney.
- 2 Kidney stones, which have destroyed most kidney tissue and continues to cause infection.
- 3 Non-functioning, shrunken or baggy kidneys.
- 4 To stop uncontrolled bleeding caused by trauma to the kidney.
- 5 Kidney and/or ureteric tumours.

What are kidney functions?

The kidneys are a pair of organs at the back of the abdomen that filters the blood to remove waste products, which they convert into urine. Each kidney is connected to the bladder by a tube called ureters which carries urine from the kidneys to the bladder. From the bladder the urine passes out of the body through a tube called urethra. The urethra opens immediately in front of the vagina in women and at the tip of the penis in men.



Picture courtesy: www.shutterstock.com

What are the advantages of Laparoscopic Surgery?

- 1 Avoids open surgery and large scars. Only small scars from the ports will be visible.
- 2 Shorter hospital stay.
- 3 Less pain after the operation.
- 4 Quicker full recovery
- 5 Earlier return to work and normal activities.

What are the potential risks and complications of surgery?

Although this procedure has proven to be very safe, as in any surgical procedure there are risks and potential complications. The safety and complication rates are similar when compared to the open surgery.

Potential risks include:

- **Bleeding:** Blood loss during this procedure is typically minor (less than 100 cc) and a blood transfusion is needed in less than 5% of patients your surgery.
- **Infection:** All patients are treated with intravenous antibiotics, prior to starting surgery to decrease the chance of infection from occurring after surgery. If you develop any signs or symptoms of infection after the surgery (fever, drainage from your incisions, urinary frequency/discomfort, pain or anything that you may be concerned about) please contact us at once.

Chest infection may occur as a complication of anaesthetic. You can help prevent this by deep breathing.

- **Pain:** Some patients experience temporary shoulder pain and abdominal bloating for 24hrs after the operation.

- **Tissue / Organ Injury:** Although uncommon, possible injury to surrounding tissue and organs including bowel, vascular structures, spleen, liver, pancreas and gallbladder could require further surgery. Injury could occur to nerves or muscles related to positioning.
- **Hernia:** Hernias at incision sites rarely occur since all keyhole incisions are closed carefully at the completion of your surgery.
- **Conversion to Open Surgery:** The surgical procedure may require conversion to the standard open operation if difficulty is encountered during the laparoscopic procedure. This could result in a larger standard open incision and possibly a longer recuperation period.

What happens before the operation?

You will attend a pre-assessment clinic to assess your suitability for surgery. Blood tests, urine tests, ECG, MRSA screening will be organised for you. Bring a list of your medications with you. You will also be told what medications to stop and when if you take any.

You may eat and drink as you desire the evening prior to surgery. You will have nothing to eat 6 hours before your operation and water only for 2 hours. You can take medications that have not been stopped.

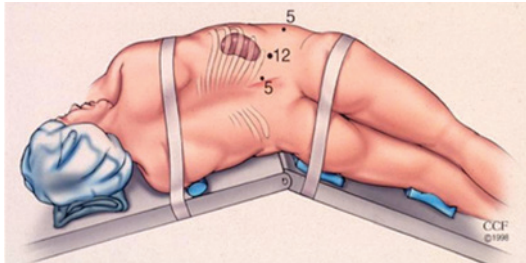
What happens on the day of operation?

You will be admitted to the ward on the day and introduced to the nurse who will be looking after you for the day. You will have your blood pressure, pulse, temp checked. You will also be asked to wear anti-thrombus stockings as these prevent clots forming in your legs during surgery.

You will be seen by your operating consultant who will take your consent for the operation. You will also be seen by the anaesthetist. You will then be escorted to theatre by the theatre staff.

What happens during operation?

Laparoscopic surgeries are carried under general anaesthetic, therefore you will not know the procedure is taking place and you will not feel any pain during the operation. The surgeon will make 3 key-hole incisions. The operation usually takes 2-3 hours but can vary depending on your specific case.



Port Sites for Lap Nephrectomy. Picture Courtesy: www.medscape.org

What happens after your operation?

When you come out of theatre, you will be transferred to the recovery area until you are fully awake. It is very important that if you feel pain or nauseous that you let your recovery staff know so that they can administer appropriate medications to you. Once you are stable you will then be taken back to the ward.

The following tubes may be present after the operation:

- 1 Drip:** You will have a drip put into your vein, to give you fluids until you are able to drink normally. You can start drinking immediately after the operation and the can usually be removed the next day. You will gradually increase the food and fluid intake the next day.

2. **Urinary catheter:** You will have a urinary catheter to monitor urine output and make it easier for you to pass urine. This will be removed when you are mobile.
3. **Drain:** As well as the dressings over your wounds, there will be a small plastic drain tube attached to a wound drainage bag which will collect blood stained fluid from your wound site. This will be removed when there is little or no drainage from it. This will usually be the next day.

Following the operation it is usual to have some mild shoulder or stomach pain for a couple of days. This pain is described as 'wind- like' pain, and is due to the surgeon using gas to inflate your abdominal cavity so that he can see the kidney better during the operation. Most patients will only need mild pain killers; if you find that you are still uncomfortable, let the nurse looking after you know, so that you can be prescribed stronger pain relief if needed. You may also feel nauseated (sick) for 24hours after your operation but the nurse can give you medication to control this.

The nursing staff will help you to get out of bed the day after your operation. You will be encouraged to walk short distances and to sit out of bed for short periods throughout the day. While in bed you must move your feet and wriggle you toes to promote circulation in your legs. The second day after your operation you should be able to be out of bed most of the day and walk longer distances.

When can I go home?

Discharge normally occurs on the second or third day after the operation. You will receive a copy of the discharge summary and one will be sent to your GP. You will also receive a week's supply of any medications you have been prescribed.

You will be seen back in the clinic in about 4-6 weeks' time.
Your nurse can give you a sick note for the time you are in hospital.
Your GP can provide you with any further sick notes.

When can I get back to normal life?

- Recovery takes up to 2-3 weeks' time after your operation.
- During the first 2-3 weeks you should not drive. Once you are comfortable and able make emergency stop you can resume driving. Also check with you insurance company to see when you are covered after the operation.
- Getting back to work depends on the type of job that you do. Usually 2-3 weeks off work are needed. Manual workers need more time off work. No heavy lifting for 4-6 weeks.
- Exercises should be increased gradually. Start with short walks and gentle exercise. No heavy exercise for 3-4 weeks.
- Drink plenty of fluids and pass urine regularly; this will keep you remaining kidney healthy.
- Sexual activity can resume 3-4 weeks after your operation or when you are comfortable.

If you have any further questions please contact:

The Princess Royal Hospital

Ansty ward **01444 441881 Ext. 8240/8241**
The Urology Nursing Team **01444 441881 Ext. 5457**

Urology Consultants:

Mr Nawrocki's secretary **01444 441881 Ext. 5962**
Mr Coker's secretary **01444 441881 Ext. 8043**
Mr Symes' secretary **01273 696955 Ext. 7809**
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Mr Alanbuki's secretary **01273 696955 Ext. 7810**

Leaflet given to patient by:

Date:

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