Queen Elizabeth Hospital Birmingham
Part of University Hospitals Birmingham
NHS Foundation Trust

Open and Laparoscopic Nephrectomy

Patient information

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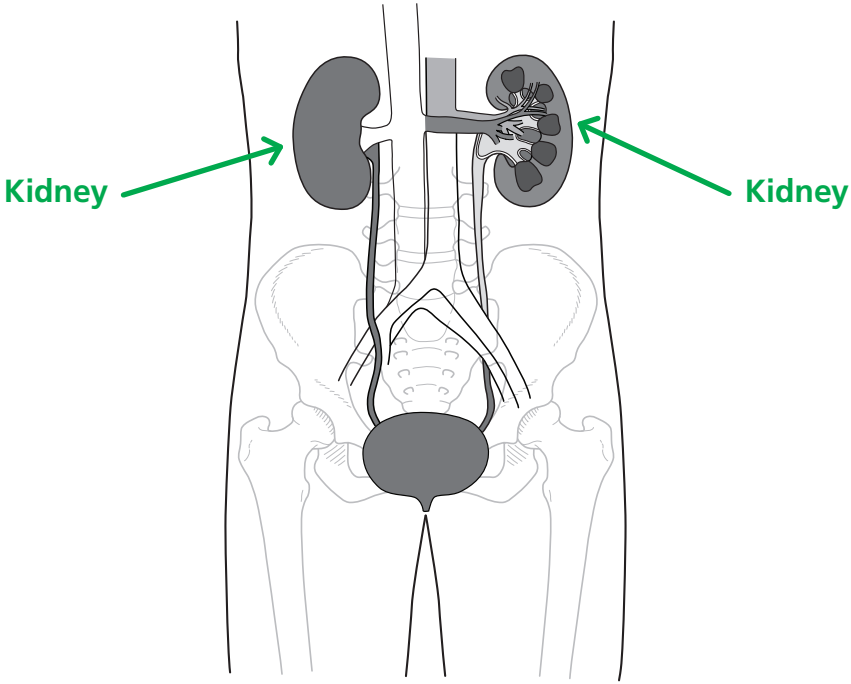
www.uhb.nhs.uk/patient-information-leaflets.htm

Introduction

It is essential that you read this booklet carefully. If there are any areas that are not clear or there are questions you need answering then there are telephone numbers at the back of this booklet for you to contact the urology nurse specialists. It is important that you understand the operation and its effects on you. If you have not had contact with a specialist nurse, you can contact them on 0121 371 6926 (answer machine available). They will be able to discuss the operation with you and answer any of your initial questions and support you through the process of diagnosis, surgery and recovery.

The kidneys

Most people have two kidneys. They sit at the back of the body, one on each side, just underneath the ribcage. The kidneys filter the blood and remove waste products, which they convert into urine.



Kidney cancer

Kidney cancer is more common in people over 60 and rarely affects people under 40. Usually only one kidney is affected, and it's rare for cancer to affect the other kidney.

There are different types of kidney cancer. About 90% of kidney cancers (9 out of 10) are renal cell cancers (RCC). They start in the cells that line very small tubes, called tubules, in the kidney cortex. There are different types of renal cell cancer. The most common type is clear cell renal cancer. Less common types are papillary, chromophobe and collecting duct renal cancer.

Surgery

Surgery is often the only treatment that is required. The most appropriate type of surgery for your situation will depend on the size of the cancer and whether or not it has spread, as well as your age and general health. It is important to discuss any operation fully with the consultant before you make any treatment decisions.

Early – stage kidney cancer

If you have been diagnosed with an early-stage kidney cancer, surgery is usually done with the aim of curing the cancer. Occasionally, additional treatments are given to help reduce the risks of it coming back.

Advanced – stage kidney cancer

If the cancer is at a more advanced stage, surgery may only be able to control it. This may help you live for longer or it may reduce your symptoms and improve your quality of life.

What is a radical nephrectomy?

You and your consultant will have discussed the reasons for removing your kidney - this is usually done for a suspected cancer. The operation is similar but not the same as operations done to remove a kidney for benign disease such as infection or stones. Nephrectomy means the surgical removal of the kidney or the whole of the kidney and urethra (the tube that urine passes down from the kidney to the bladder) known as a nephroureterectomy.

What does the operation entail?

This operation involves open surgery where you will have an incision (cut). The surgeon can use a variety of incisions such as being between the lower ribs on the side of the affected kidney. The incision site can be discussed with your surgeon.

The kidney will then be removed and often the surrounding fat and glands. This will then be sent to the laboratory to be examined under the microscope. You should expect to stay in hospital for about 4-7 days.

It may also be necessary to remove the spleen. This is called a spleenectomy. The spleen helps body's defence against bacterial infection, so if you have had your spleen removed or irradiated you are at increased risk of infection. The risk is greatest in the first two years after spleenectomy but persists throughout life. You will be able to cope with most infections e.g. colds and other virus infections but sometimes serious infection may develop very quickly. It is very important that you take extra precautions against severe infection. These measures can reduce the risk of getting an infection:

- Take a twice daily dose of antibiotics, normally penicillin V
- Have certain vaccinations – pneumovax, HIB - a special flu vaccine, meningococcal C vaccine plus an annual flu vaccine
- The immunisations must be renewed with a booster, usually every five years, to make sure you are still protected

You must consult your doctor immediately if you are ill. Most illnesses are not serious but sometimes a fever, sore throat, severe headache, abdominal pain or rash may be the beginning of a serious infection therefore early treatment is essential. It is advisable to have a course of antibiotics at home (and to take on holiday) to be used immediately if you develop an infection.

It is important to seek advice from your doctor before travelling abroad. Extra vaccinations and special precautions to prevent malaria will be necessary for travel to some parts of the world. You may be advised against travelling to areas where there is Falciparum malaria. Animal and tick bites can be dangerous.

It is important that you inform you doctor and dentists that you do not have a spleen.

Laparoscopic nephrectomy

In some cases your consultant may want to perform a laparoscopic (keyhole) nephrectomy. Keyhole surgery is performed through a series of portholes rather than a large incision (cut) you will have 3-5 small incision (cuts) sites in your abdomen. This method of removal can reduce the length of time you spend in hospital and allow you to resume your normal life in a shorter period of time than compared with the open surgery.

Occasionally there is a small risk that your consultant will have to perform an open operation if the kidney cannot be removed through the small cuts in your abdomen. You should expect to stay in hospital for about 2-4 days. This operation may not be suitable for all patients.

Partial nephrectomy

In some cases the Surgeon will offer a partial nephrectomy. This is where the Surgeon only removes the tumour and small layer of surrounding tissue. This is offered in order to keep Kidney function (medically called renal Function) as good as possible. This surgery is generally an open procedure although occasionally done Laproscopic (keyhole). (Discussed in detail in the partial nephrectomy booklet).

Pre-admission clinic

You will receive an appointment to attend a pre-admission clinic before your operation, so all of the necessary investigations such as blood tests, heart tracings and a chest X-ray are carried out in preparation for your surgery.

Here you will have had an opportunity to discuss any concerns with the medical staff.

It is strongly advised that if you are a smoker that you give up prior to surgery. For further information on the benefits of giving up and free quitting support visit: **www.nhs.uk/smokefree**

Admittance to hospital

When you are admitted to the ward, the nursing staff will be fully aware of your pending surgery and can answer any last minute questions that you may have. Alternatively if you would like to speak to your urology nurse specialist please ask the ward nursing staff to contact them for you.

A member of the medical team will visit you in the evening to insert a cannulae into your hand or arm to put up an intravenous infusion (IVI). This is to keep you hydrated whilst you are waiting for the operation and are nil-by-mouth (NBM).

An anaesthetist will also visit you before you go to theatre to discuss the anaesthetic you will receive.

On the day of your operation you will be asked to put on a hospital gown and support stockings (TED stockings). These are to reduce the chance of clots or deep vein thrombosis (DVT) forming in your legs. It is advisable that you wear these stockings probably between 4-6 weeks after the surgery and not just while you are in hospital. After the operation you will also be given daily subcutaneous injections (Tinzaparin), into the stomach area. You will be taught to administer these injections before discharge home to help prevent deep vein thrombosis (DVT).

A theatre porter will come and collect you and take you to theatre. A nurse will go to theatre with you and stay with you until you are asleep.

What care will you need after the operation?

Sometimes, your consultant may decide that you need to be nursed in the critical care for a short time immediately after the operation. Once you have recovered, then you will be transferred back to the urology ward for the rest of your hospital stay. The need to be nursed on critical care depends on the surgery and any other health issues you may have.

If there is no need for critical care then after the operation you return to the post-operative room on the ward.

After your operation

There will be certain tubes attached to you. Each tube serves a purpose and helps you to recover. These are listed below:

Oxygen therapy

To help you wake up from the anaesthetic, you may have some oxygen therapy in the form of a small tube near your nose. As you breathe normally, you will breath in the oxygen. This usually remains in place for 1-2 days after surgery.

The nursing staff will record your blood pressure and pulse at regular intervals for the first 24-36 hours this is done by a machine connected to your arm with a Velcro cuff.

Pain relief

You will experience some discomfort after the operation and will be given pain relief.

Pain relief is usually given in the form of an epidural infusion. This is a special painkilling pump that works continuously and is set up whilst you are having your anaesthetic, without the need for pain relieving injections. The anaesthetist will discuss this with you prior to going to theatre. The epidural will be removed once you are able to tolerate fluids. Then you will be given pain relief in the form of a tablet or suppository.

Please ask the nursing staff if you require any further pain relief.

Intravenous infusion (drip)

You will have an intravenous infusion (drip into a vein in the arm) to provide you with the fluids and nutrients that you require. On rare occasions it may be necessary to give a blood transfusion during or after the operation.

During the next 24 hours you will be able to drink fluids beginning with water then tea/coffee. Once you are able to tolerate adequate fluids then your intravenous infusion (drip) can be removed. You will then be able to eat a light diet and gradually build up to eating normally.

Catheter

A catheter, (hollow tube into the bladder) will be in place to drain the urine from the bladder. The amount of urine you are passing will be monitored regularly. This will be removed when you are passing good volumes of urine.

Wound drain

You may also wake up with a wound drain. These are used to drain any excess fluid away from the wound area. Once the drainage is minimal the doctor will ask the nursing staff to remove it.

Sutures (stitches)

Your wound will have dissolvable sutures (stitches). These can take up to three months to completely dissolve. You may experience itching until then. To begin with you will have a dressing over the wound. Once it is clean and dry, you will no longer need a dressing.

You will be encouraged to participate in deep breathing exercises and to move as much as possible following the surgery to reduce the risk of complications, such as deep vein thrombosis.

The nursing staff will assist you where required until you are able to do things for yourself.

Going home

When you first leave hospital you will need to get plenty of rest. You may experience aches and twinges for approximately 3 months during the recovery period. These are normal and are due to the tissue and muscle inside, healing together. As the wound heals a few patients may develop scar tissue along the wound. This can sometimes feel like a lump. If you are concerned either see your GP or speak to your nurse specialist or consultant at your next consultation.

You should only take light exercise. Take gentle walks (less than one mile) and avoid vigorous exercise such as golf and cycling for at least six weeks. More strenuous activities such as heavy lifting, digging and decorating should be avoided for three months after your operation.

Driving – you should not drive for 6 weeks after your operation or until you can comfortably wear the seat belt and are able to perform an emergency stop if necessary. It is advisable to check with your car insurer first before driving. Please remember that driving long distances is tiring. You may need to plan to take extra breaks in your journey.

Eating and drinking – when you go home you can eat whatever you like, although you should avoid constipation by eating fresh fruit, vegetables, wholemeal bread and cereals.

You should drink 2-3 litres of fluid each day as this will help you look after your remaining kidney. If you feel your appetite is low trying eating little and often. Good nutrition is vital in order to help healing process.

Work – if you have an inactive job, you may feel well enough to return to work after 6-8 weeks. If you have a heavy manual job, you should not return to work before three months. Sick notes can be obtained from your GP after hospital discharge.

After any operation it is natural to feel frightened and concerned during the initial recovery. If you are concerned please do ring the nurse specialists who are there to help you during this time.

Holidays – Avoid travelling abroad for 6 weeks after surgery. You should speak to your GP or consultant if you are planning a trip.

If you are planning a long distance fight it is important to take precautions. Drink plenty of fluids. If at all possible, wear some support stockings (similar to those you wore after the operation) and try to mobilise (move around) during the flight.

Further advice

Complications following a nephrectomy:

Chest infection

This may occur as a complication of the general anaesthetic. You can try to help prevent this by deep breathing.

Blood clots in the legs

There is a risk that you may develop blood clots deep vein thrombosis (DVT) in the legs after this operation. If you have pain, tenderness or swelling in your legs, or have chest pain, shortness of breath or you are coughing up blood, you should contact your GP immediately. If diagnosed early, problems with blood clots can usually be effectively treated.

Wound infection

There is a possibility of a wound infection after surgery. If the wound is warm to touch and has a discharge, it can be an infection. A course of antibiotics should help clear it up.

Urine infection

The risk of developing a urine infection is increased if a urinary catheter is present.

If your urine becomes offensive smelling or cloudy in colour this could mean that you have a urine infection. Please speak to your GP as they may need to prescribe you some antibiotics.

The doctor may also arrange for the district nurse to visit you in order to monitor the wound. If you are in doubt please contact the specialist nurse.

Blood in your urine

If you have had a partial removal of your kidney there is a risk of bleeding after the operation (experiencing blood in urine).

If this does happen, you should contact the ward or nurse specialist immediately as you will need to be admitted at once.

Follow up

Once you have recovered sufficiently enough to be discharged, your consultant will arrange an appointment for you to be reviewed in the Outpatient Department in 6-8 weeks. At that appointment the surgeon will provide the histology of the kidney tumor and discuss the follow–up care you will receive. Any issues you may have will be discussed.

Contact numbers

For further advice please contact:

Urology specialist nurses: 0121 371 6926

Ward 624: 0121 371 6261, 0121 371 6263 or 0121 371 6265

The Patrick Room at the cancer centre outpatients department at the Heritage Building (Queen Elizabeth Hospital) 0121 371 3539.

Macmillan – Cancer line: 0808 808 2020
www.macmillan.org.uk

Kidney cancer UK – Tel: 0247 647 0584
www.kcuk.org

Cancer Research UK
www.cancerresearchuk.org/about-cancer

health talks

The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk/health-talks.htm

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