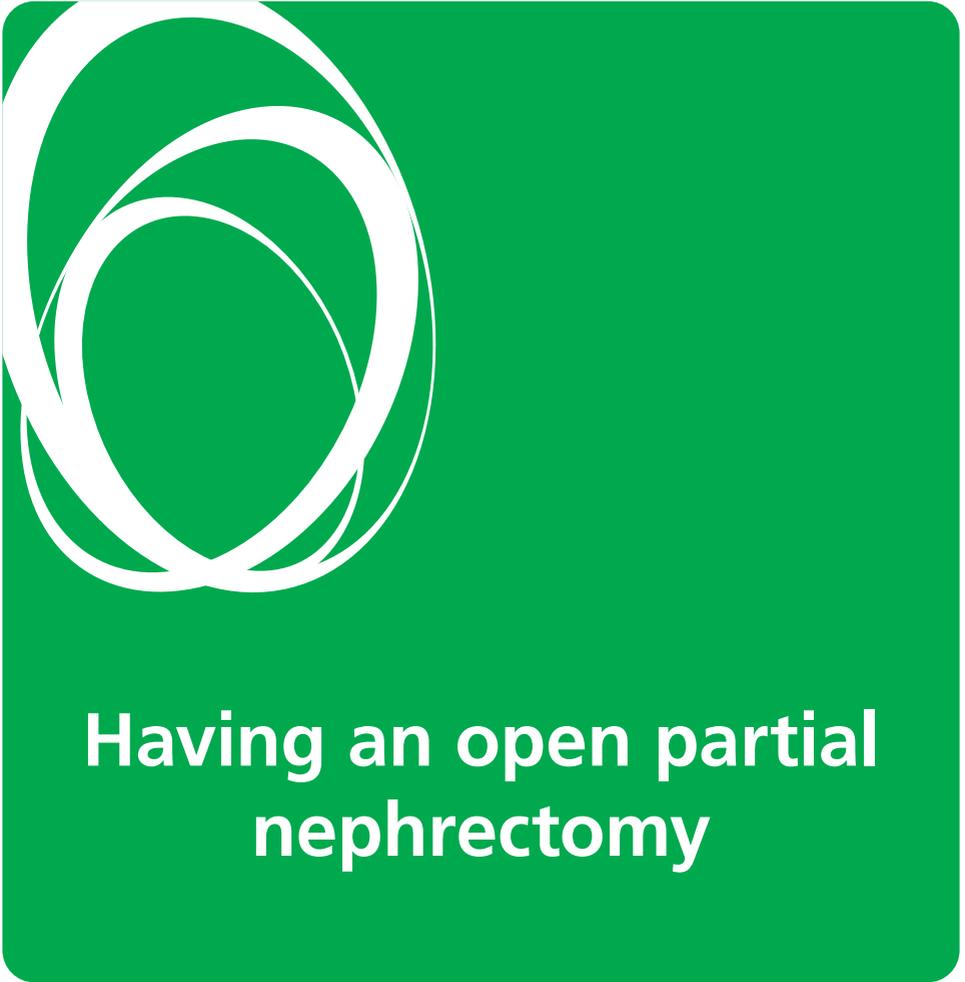




**University Hospitals Birmingham**  
NHS Foundation Trust



# Having an open partial nephrectomy

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## Introduction

It is essential that you read this booklet carefully. It is important that you understand the operation and its effects on you.

If there are any areas that are not clear or there are questions you need answering, the urology nurse specialists are there for you to talk to. Their telephone numbers at the back of this booklet so you can contact them.

If you have not had contact with a specialist nurse, then they can be contacted on **0121 371 6926** (answer machine available). They will be able to discuss the operation with you and answer any of your initial questions.

The specialist nurses are available to you after you are discharged. If you have any questions or concerns, please feel free to call them. They are there to help you through the whole process.

## 'Buddy' system

No matter how many leaflets and booklets you will read discussing this operation, sometimes it is helpful to talk to a patient who has undergone this operation.

If you feel that you would like to talk to one of our patients, please ask your specialist nurse to put you in contact with someone. All 'Buddies' have volunteered their services to help other patients through this process.

## 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.

## What is a partial nephrectomy?

A partial nephrectomy is an operation to treat small kidney cancers (cancer that has not spread outside the kidney). It involves removing just the tumour and not all the kidney. This surgery may also be suitable for people who have tumours in one or both kidneys, including people who only have one kidney.

## Surgery

A partial nephrectomy is the only way we can treat and remove part of your kidney. You and your surgeon should decide together whether this procedure is more suitable for you than removing one of your kidneys completely.

## What are the alternatives?

The alternatives to a partial nephrectomy are:

Surveillance monitoring by means of imaging scans and for patients that are not fit to have surgery.

Radiofrequency ablation is an alternative for some people with very small tumours in very specific circumstances. The kidney cancer team will discuss your suitability for this alternative with you.

Biopsy of the tumour, however this is not definitive and has risks.

Radical nephrectomy, which involves removing the whole kidney and the tumour.

## What does the operation entail?

It is performed under a general anaesthetic and involves removing the kidney tumour and a small amount of surrounding normal kidney

tissue. A small amount of healthy tissue is removed to help ensure that all the cancer cells are cut away. A general anaesthetic means that you will be asleep for the whole of the operation, so that you will not feel any pain.

This operation involves open surgery where you will have an incision (cut). They are usually performed through open surgery – where an incision or cut of about 10–15cm (about 6 inches) is made to the abdomen on the side of the affected kidney. The incision site can be discussed with your surgeon.

The tumour will be removed and be sent to the laboratory to be examined under the microscope. You should expect to stay in hospital for about 4–7 days.

## Can a partial nephrectomy be done as a laparoscopic (keyhole) procedure?

Yes. A small number of surgeons perform this operation as a keyhole procedure. Your surgeon will discuss with you whether keyhole surgery is appropriate for you.

## What are the possible risks/complications following a partial nephrectomy?

A partial nephrectomy is a major operation. Your consultant will discuss the risks below with you in more detail, but please ask questions if you are uncertain.

**Blood loss during and after the operation:** If the bleeding is severe, you may need a blood transfusion or a further operation to stop this.

There is a very small chance (less than 1%) of having to remove the whole kidney if the bleeding cannot be controlled even after this.

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

**Blood clots in the legs or in the lung:** There is a risk that you may develop blood clots deep vein thrombosis (DVT) in the legs or a pulmonary embolus (blood clot in the lung) after this operation. While you are in hospital you may be given special stockings (TED tights) to help prevent this problem and most likely receive a daily subcutaneous injections into the stomach area called Tinzaparin. You will be taught to administer these injections before discharged home and advised how long you will need to continue these for. 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.

You will also be encouraged to participate in deep breathing exercises and to move as much as possible following the surgery to reduce the risk of complications of chest infection and DVT.

**Urine leak:** rarely (less than 5%) urine can leak from the cut surface of the kidney. This will generally stop naturally without the need for a further operation. An internal stent (small plastic tube) may be required this would be inserted during the operation to drain any fluid from around the kidney. This is a temporary measure and the stent is usually removed after 2–3 weeks. If there are signs of a urine leak, this may be left in until it has stopped. The stent can cause some loin discomfort and a feeling of wanting to urinate often.

**Need for dialysis:** Dialysis means that a machine filters the blood and removes any waste products which are normally removed as urine. Patients with two kidneys rarely need dialysis after the operation but a number of patients having a tumour removed from their only kidney may need to have temporary dialysis after the operation.

The risk of needing dialysis is also increased if you have poor kidney function before the operation and especially if you have poor kidney function and only one kidney. The need for dialysis may be temporary (for a few days after the operation). For a very small number of patients this may be required for a longer period of time while your kidney function recovers. If your surgeon feels that there may be a need for dialysis, he will discuss this with you and refer you to the renal (kidney) doctors.

**Positive margins:** A positive margin means we may not have removed all the cancer the incidence of this occurring is less than 7%. If this is the case you will be closely monitored by CT or MRI scans. Your consultant will discuss this further with you at your post surgery follow up in the out patient clinic.

There is also a chance that the tumour may be benign (a small chance of it never being a cancer).

**Damage to surrounding organs:** less than 1%.

**Stroke or heart attack:** can occur.

**Death:** This is rare – approximately less than 1% of patients having this operation die from complications.

**Wound infection:** There is always a possibility of a wound infection with any open operation. If the wound area becomes red and warm to the touch it could mean you have a wound infection. If this does happen you will need a course of antibiotics to clear the infection. This may be in the form of tablets or injections.

Occasionally the wound may produce a discharge, although this may be unpleasant it is better for the infection to drain away as it will clear up quicker.

If you develop a wound infection after being discharged from hospital, you should contact your own GP who will arrange antibiotic therapy. 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.

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

If on discharged home 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.

**Blood in urine or fistula:** There is a risk of bleeding post operatively (experiencing blood in urine). If this does happen you should contact the ward or Nurse Specialist. You may require a small operation (embolisation) through the groin to stop this bleeding.

**A hernia:** As with all procedures there is a small risk of developing a hernia at the wound site. A hernia is when an internal part of the body, such as an organ, pushes through a weakness in the muscle or surrounding tissue wall. There is usually no treatment for loin hernias. You will develop some degree of bulging on your operated side this is normal and will not resolve with time.

**A haematoma (collection of blood):** haematoma is managed by bed rest and possibly a blood transfusion.

## Pre-admission clinic

You will receive an appointment to attend a pre-admission clinic before your operation, it is very important that you come to this appointment, as this is when we will assess your suitability and fitness for surgery and anaesthetic. We will carry out a number of tests to make sure that your heart, lungs and kidneys are working properly. You may have a chest X-ray, ECG or electrocardiogram (which records the electrical

activity of your heart) and some bloods taken. Your doctor will explain any tests you need further. Here you will have had an opportunity to discuss any concerns with the medical staff.

If you take warfarin, aspirin, clopidogrel, or any other medication that might thin your blood please tell the consultant/ nurse specialist. You will be given advice about when to stop taking prior to your operation. We generally ask you to stop aspirin and clopidogrel for at least ten days prior to surgery and warfarin to stop three days prior to surgery. Do not make any changes to your usual medicines, whatever they are for, without consulting your specialist first. Please bring all of the medicines that you currently take or use with you, including anything that you get from your doctor on prescription, medicines that you have bought yourself over the counter, and any alternative medicines, such as herbal remedies.

If you do not attend the pre-admission clinic, we may have to cancel your surgery.

Smokers are strongly advised to give up prior to surgery, as smoking increases the risk of developing a chest infection or DVT (already defined above). Smoking can also delay wound healing because it reduces the amount of oxygen that reaches the tissues in your body. If you would like to give up smoking you can seek advice by calling the NHS Smoking Helpline on **0800 169 0169**.

## Admittance to hospital

You will receive written confirmation of when you are to be admitted. If you are admitted the day of your surgery you will attend the admissions lounge prior to going to theatre. If you are admitted the day prior to surgery you will go to the ward.

A member of the medical team will visit you to insert a cannula into your hand or arm to put up an intravenous infusion (a drip). This is to keep

you hydrated whilst you are waiting for the operation and are nil-by-mouth (NBM).

Your surgeon will see you obtain your consent for the operation. They will write down all the possible complications of the procedure and discuss these with you. They will then ask you to sign a consent form to say that you have agreed to have the procedure and understand what it involves. It is your right to have a copy of this form.

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

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 for ten days after the surgery and not just while you are in hospital.

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 can I expect after my surgery?

After the surgery is finished, you will be taken to the recovery room and remain there until you come around from the anaesthetic. You may be taken to the high dependency area for the first night after your operation so that they can monitor you closely. If your kidney is working properly you will return to the ward the following day.

When you wake up there will be certain tubes attached to you, but each tube serves a purpose and helps you to recover. These are listed below:

**An oxygen mask or nasal prongs:** 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 progress for one or two days.

**A catheter:** 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 usually one or two days post surgery.

**A nasogastric tube:** a fine plastic tube inserted from your nose to your stomach to stop you from feeling sick from distension of your stomach and bowel from air.

**Either: An epidural infusion:** allows painkillers and local anaesthetic to be given directly into your spinal nerve system. This involves inserting a very fine plastic tube into your back. 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.

**OR: PCA infusion:** a device that you control, that releases painkillers into your blood stream via a drip (patient controlled analgesia or PCA).

The anaesthetist will discuss two options with you prior to going to theatre.

The epidural or PCA 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 anything for pain relief.

**A drip:** You will have an intravenous infusion (drip) to provide you with the fluids and nutrients that you require. This delivers fluids into one of your arm veins or a larger neck vein to prevent you getting dehydrated. 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.

**Blood pressure cuff:** 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.

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

**Dressings:** A dressing will be placed over the wound site. This will be checked by your nurse for signs of bleeding and changed as needed.

**Wound:** Your wound will have dissolvable sutures (stitches). These can take up to three months to completely dissolve. You may experience itching until then. Sometimes we use clips to close the wound and these will need to be removed by your GP practice in about ten days post surgery. To begin with you will have a dressing over the wound. Once it is clean and dry, you will no longer need a dressing.

## When can I go home?

When you have opened your bowels, you can move around freely and your pain is well-controlled with painkillers taken by mouth (orally).

## Going home

### What can I expect when I get home?

When you first leave hospital you will need to get plenty of rest as the most common complaint after surgery is tiredness. It is important to remember that you have had major surgery and that you need to rest at home. It may take up to eight weeks before you start to regain your normal energy levels.

You may experience aches and twinges for approximately three 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. Avoid travelling abroad for six weeks after surgery. You should speak to your GP or consultant if you are planning a trip.

## **Driving**

You should not drive for six weeks after your operation or until you can comfortably wear the seat belt and are able to do an emergency stop if necessary. It is advisable to check with your insurance. 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 between two and three litres of fluid daily as this will help you look after your remaining kidney.

## **Work**

If you have an inactive job you may feel well enough to return to work after six to eight 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

Holidays abroad are OK once you have fully recovered from your operation. Previous patients have commented that they were not ready for this type of travel until approximately three months after the operation. This is something to bear in mind. Travelling before this may pose problems in obtaining travel insurance.

If you are planning a long distance flight, 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 during the flight.

## When can I have sex again?

You may begin sexual activity again two weeks after your operation, as long as you feel comfortable.

## 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 about six to eight weeks to discuss the histology/outcome of your operation.

If you have not received an appointment, please call the consultant's secretary. Your follow up after this will depend on your cancer type, this will be explained to you when you attend your first follow up appointment.

You should have already had the contact number for your nurse specialist who is available to support you through the process of diagnosis, surgery and recovery.

## Contact numbers

For further advice please contact:

Urology specialist nurses: **0121 371 6926**

Ward 624: **0121 371 6261**

## Useful sources of information and support

Macmillan Cancer Support provides information and support to anyone affected by cancer.

Telephone: **0808 800 1234**

Website: **[www.macmillan.org.uk](http://www.macmillan.org.uk)**

Cancer Research UK has a patient information website, with information on all types of cancer and treatment options, as well as a book list for further information.

Website: **[www.cancerhelp.org.uk](http://www.cancerhelp.org.uk)**





## **Do you really need to go to A&E?**

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**[uhb.nhs.uk/ask](http://uhb.nhs.uk/ask)**

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## **Urology Unit**

Queen Elizabeth Hospital Birmingham

Mindelsohn Way, Edgbaston

Birmingham, B15 2GW

Telephone: 0121 627 2000

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