

Having a laparoscopic (keyhole) radical nephrectomy

This leaflet explains what a laparoscopic radical nephrectomy is. It includes information about the benefits and risks of the surgery, whether there are any alternatives, and what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you.

What is a laparoscopic radical nephrectomy?

Radical nephrectomy is a treatment for suspected cancer where we remove the whole of your kidney, including the surrounding fatty tissue, lymph nodes, and sometimes the adrenal gland and upper end of your ureter (tube carrying urine from the kidney to the bladder). These are all taken out to increase the likelihood of removing all the cancer cells.

Laparoscopic surgery is also often called keyhole surgery. A laparoscopic radical nephrectomy is carried out using several small incisions or cuts (also referred to as key holes or port holes) rather than one large incision.

What is the difference between laparoscopic and open surgery?

The main difference between the two procedures is how your surgeon gains access to your kidney – either through a large, open incision or through several smaller incisions. Keyhole surgery offers the same level of cancer control as open surgery.

What are the advantages of laparoscopic surgery?

- **Less blood loss.** In the keyhole operation, blood loss is typically 200-500mls (a cup or mug full), whereas in an open nephrectomy it can be more than 1,000mls. Therefore, there is less risk of needing a blood transfusion with laparoscopic surgery.
- **Less pain after the operation.** As there is no large abdominal wound, patients rarely need strong painkillers following laparoscopic surgery and can return to normal activities and work sooner compared to open surgery.
- **A shorter stay in hospital.** Most patients go home one to two nights after laparoscopic surgery, compared to an average of five to seven nights for open surgery.
- **Smaller scars.** The laparoscopic operation avoids the large scar from open surgery, although the smaller scars from the ports will be visible.

What are the disadvantages of laparoscopic surgery?

There are no clear disadvantages compared to open surgery. The potential complications outlined in this leaflet are essentially the same for both procedures.

Are there any alternatives?

Yes, these include:

- observation alone – this means we do not give you any treatment but wait to see how your condition progresses
- embolisation – this is where the blood supply to the tumour is cut off
- open surgery
- partial nephrectomy or nephron sparing surgery – this is where only part of the kidney with the tumour is removed.

Your surgeon will discuss the best method of removing your kidney and tumour with you.

Can I live with just one kidney?

Yes. Your remaining kidney will take over the function of your removed kidney to filter your blood and to produce urine.

Why should I have a laparoscopic radical nephrectomy?

A laparoscopic radical nephrectomy is the most common type of surgery for the treatment of kidney cancer that has not spread beyond the kidney. However, it may be still carried out if the cancer has spread to other organs.

What are the possible risks?

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

Problems relating to the anaesthetic. Although rare, events such as the following may occur:

- a chest infection
- deep vein thrombosis or DVT (blood clot in the leg)
- a pulmonary embolus (blood clot in the lung)
- stroke or heart attack.

If you have any of these problems you may need to stay in the intensive care unit and your recovery will be delayed.

Common complications (experienced by more than one in 10 people):

- Temporary shoulder pain due to leakage of carbon dioxide (a clear gas) which is used during surgery to help the surgeon see the organs within your abdomen. This can cause pain in one or both shoulders but disappears as the gas is reabsorbed by the body.
- Temporary abdominal bloating.

Occasional complications (experienced by between one in 10 and one in 50 people):

- Bleeding requiring further surgery or blood transfusions.
- Infection, pain or bulging of the incision site requiring further treatment.
- Damage to the lung cavity requiring insertion of a temporary drainage tube into the chest.
- If there is a lot of bleeding or technical difficulties during the operation, your surgeon may need to change to an open radical nephrectomy.

Rare complications (experienced by less than one in 50 people):

- Involvement or injury to nearby local structures (blood vessels, spleen, liver, lung, pancreas and bowel) requiring more extensive surgery.
- The abnormality of the kidney may later be shown not to be cancer.
- If your remaining kidney functions poorly, you may need to have dialysis.

Very rare complications:

- Death – between three and eight in every 10,000 patients having this operation die from complications.

It is important to note that you may need further treatment for your cancer after your surgery. If we find that the cancer has spread outside of your kidney, you will be referred to an oncologist (cancer specialist doctor) who will discuss further treatment options with you.

How can I prepare for my surgery?

We will send you a date to attend a pre-assessment clinic before your surgery. 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)
- some blood tests.

Your doctor will also explain any further tests you may need. **Please note that if you do not attend this appointment, we may have to cancel your surgery.**

If you smoke, you may be asked to stop smoking, as smoking increases the risk of developing a chest infection or blood clots. It 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:

- speak to your nurse
- call the hospital stop smoking service on 020 7188 0995
- call the NHS Smoking Helpline on 0800 169 0 169.

In general, it is a good idea to try and keep active in the weeks leading up to your operation. We recommend walking for 20 minutes at least three times a week.

Medicines

You will be given special advice if you take warfarin, aspirin, clopidigrel or any other medication that might thin your blood.

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.

Fasting

We will give you information about fasting. Please do not eat or drink anything (except non-fizzy water) for six hours before your appointment. This means that you cannot suck on sweets or chew gum. You are allowed to drink water up to two hours before your appointment. It is important to follow the instructions. If there is food or liquid in your stomach during the anaesthetic, it could come up to the back of your throat and damage your lungs.

Before you come to hospital

Patients are admitted to hospital either on the day of their operation or the day before. Your surgeon will decide which day is suitable for you. The admissions co-ordinator will ring you to tell you when to come in.

Once you are in hospital

When you arrive in hospital, you will be seen by a nurse who will take some of your details and prepare you for your surgery. You may be asked to drink a strong laxative to help empty your bowels before surgery.

Your surgeon will also mark your abdomen having reviewed your scans to confirm which kidney is to be removed.

The anaesthetist will see you the evening before, or morning of, your surgery, to discuss the anaesthetic. Your specialist nurse will also be available if you have any further questions or concerns.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

On the day of your surgery

You will be asked to have a shower at home, on the morning of your surgery. When you arrive at the hospital you will be asked to put on a clean gown and anti-thrombus stockings. These help to prevent you developing a blood clot in your leg (deep vein thrombosis or DVT) during or after your surgery. You may take them off to shower during your hospital stay, but you must keep them on at all other times to help reduce the risk of clots. You will be able to remove them when you leave hospital.

You will need to be ready for surgery at least one hour beforehand. You will be taken on your bed to the anaesthetic room, where you will be seen by the anaesthetic nurse and doctors. They may put a drip into your arm or neck to allow them access to your veins during your operation.

Once anaesthetised, you will be taken through to the operating theatre.

What happens during the operation?

Three to five incisions are made, each incision is 5–10mm in length. Special plastic tubes (ports) are placed through each incision to help the laparoscopic instruments pass through easily. A telescope is placed through one incision which allows us to see the pictures of inside of your body on high definition (HD) monitors in the theatre. The remaining incisions allow access for the surgical instruments used during the operation.

One of the incisions is enlarged so that the surgeon can remove the kidney through it once it has been disconnected from the surrounding tissue and blood vessels.

The operation is performed under a general anaesthetic. This will mean that you will be asleep for the whole of the operation, so that you will not feel any pain. The anaesthetic is given through a small injection in the back of your hand. You should have received a copy of our leaflet **Having an anaesthetic**. If you have not, please ask us for one.

The operation generally takes between two and three hours.

What happens after my operation?

After the surgery is finished, you will be taken to the recovery room and remain there until you come around from the anaesthetic. This may take an hour or two.

You may be taken to the high dependency or intensive care unit while you recover for the first 24 hours. This will depend on how well you are after your surgery and your general health before your operation.

You will then be taken back to your ward. On the day of the procedure, friends and family members can wait in the ward day room and visit you afterwards.

Your consultant will see you after you have returned to the ward and your nurse has settled you in.

You may wake up with the following:

- **A catheter.** This is a hollow tube inserted into the bladder, which will collect your urine so you will not need to leave your bed to pass urine. It will also allow nurses to carefully monitor your urine output. The catheter will stay in place for one or two days.
- **Dressings.** Surgical glue or absorbable stitches are used to cover the port holes.
- **A drip.** This delivers fluids into one of your arm veins to prevent you getting dehydrated. It is usually removed one to two days after your surgery when you are able to drink freely.
- **An oxygen mask or nasal prongs** (thin plastic tube which delivers oxygen in the nose). These give you extra oxygen in the first day or two after your operation if required.

Eating and drinking. You will be able to drink clear fluids when you wake up and should be able to start eating a light diet within a few hours. Your ward nurse will be able to advise you at the time.

Washing. You should be able to shower within 24 hours of your surgery.

You may also be given a daily blood-thinning (anticoagulant) injection. This reduces the risk of you developing a DVT (blood clots in the leg). The injections may need to be taken for 28 days in total. You or a family member/friend will be taught how to give the injections before you leave the ward.

Will I feel any pain after the operation?

You will be given local anaesthetic to the port hole wounds in your abdomen. Most patients find that they need little pain relief after the operation, but please let us know if you are in pain and we will give you medicine as needed. Some patients experience shoulder ache for a few days. This is due to the gases used to inflate the abdomen during surgery.

Leaving hospital

You will be discharged from hospital when:

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

When leaving hospital, you will have:

- a date for your follow-up appointment. If you have not received an appointment, please contact Lesley Cooper or Linda Shephard on 020 7188 7823.
- contact details of the nurse specialist and ward should you have any concerns when you are home.

What do I need to do after I go home?

The most common complaint after surgery is tiredness and feeling bloated. It is important to remember that you have had major surgery and that you need to rest at home. Recovery time from abdominal surgery varies but you should generally start to feel better in six to 12 weeks after your surgery.

You will need to:

- Eat a light diet (avoid heavy, starchy meals) until your bowel movements are back to normal. You can help your bowel movement return to normal by drinking plenty of water (1.5 to 2 litres a day).
- Take it easy. Do not lift anything heavy or do anything too energetic (such as shopping, vacuuming, mowing the lawn, lifting weights or running) for at least two to four weeks after your surgery. Doing these things may put too much strain on your stitches and may make your recovery take longer. Build up your activities slowly and only do as much as you feel able to.

- Give yourself a couple of weeks rest before returning to work. If your work involves heavy lifting or exercise, please speak to your consultant.
- Only start driving again when you are able to perform an emergency stop without feeling hesitant. Check with your insurance company to make sure you are covered to start driving again. **If you are taking painkillers please check with the pharmacist whether it is safe to drive.**

When can I have sex again?

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

Will I have a follow-up appointment?

Yes. You will be seen by your surgeon or a member of their team about two weeks after your operation. Your follow-up after this will depend on your cancer type and this will be explained to you when you attend your first follow-up appointment.

Useful sources of information and support

The James Whale Fund provides support and information for people with kidney cancer.

t: 0845 300 8383 w: www.jameswhalefund.org

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

t: 0808 800 1234 w: www.macmillan.org.uk

South East London Cancer Network provides information for people affected by cancer in South East London.

w: www.patientinfo.selcn.nhs.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.

w: www.cancerhelp.org.uk

Contact us

If you have any questions or concerns about your operation, please contact **Lesley Cooper** or **Linda Shephard** on 020 7188 7823 (Monday to Friday, 9am to 5pm). You can also call the hospital switchboard on 020 7188 7188 and ask for the bleep desk. Ask for bleep 2841 and wait for a response. This will connect you to either Penny or Kathryn directly.

Out of hours, please contact Florence or Aston Key wards on 020 7188 2441, or your GP for advice.

Dimbleby Cancer Care Information Centre

Provides information, psychological support and complementary therapy to people affected by cancer, their families and carers.

t: 020 7188 5918

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership