

Nephrectomy (kidney removal): information and advice for patients on the enhanced recovery programme

This leaflet will explain what will happen when you come to the hospital for your operation. It is important that you understand what to expect and feel able to take an active role in your treatment. Your surgeon will have already discussed your treatment options with you, including the risks, benefits and any alternatives.

This leaflet includes:

- Introduction and reasons for surgery
- Types of and reasons for surgery
- Alternatives, risks and side effects
- How best to prepare for surgery
- Admission
- Fasting and bowel preparation
- Immediately before and straight after surgery
- The days in hospital following surgery
- Your discharge and aftercare
- Useful numbers and further information

The usual length of stay in hospital for this sort of surgery is between 1 and 2 days. Many different health professionals will be involved in your care during your stay and there will be a clear plan for any after care when you are discharged from hospital. This leaflet will answer some of the questions that you may have but if there is anything that you and your family are not sure about, then please ask.

Why do kidneys need to be removed?

A kidney may need to be removed for a number of reasons, including:

- The kidney may only partially work or may not work at all. If left in place, it can be a source of repeated infections and pain.
- Infection may have damaged the kidney so that it needs removal.
- You may have been diagnosed with a cancer within the kidney. The usual treatment for this is to remove the affected kidney.
- If cancer has been found in the kidney, it is occasionally necessary to remove the adrenal gland that lies on top of the kidney, at the same time.

- For some kidney cancers there is a high risk of cancer recurring in the tube that carries urine from the kidney to the bladder (the ureter). If this type of cancer has been found you will need a small cut low down on your abdominal wall in addition to the kidney operation.
- Kidney stones causing infection to the kidney.
- Urethral stricture disease causing damage to the kidney.

The exact reasons why your kidney is to be removed will be discussed with you. Before the operation you will undergo various scans and blood tests so that the surgeon has as much information about the diseased or cancerous kidney as possible. These tests also make sure that your remaining kidney is working normally. Providing that it is functioning properly, you will not need to make any change to your lifestyle (e.g. diet) or activities after the operation.

Open or keyhole surgery

Nephrectomy is the medical term for the surgical removal of a kidney. A kidney can be removed either using an 'open' operation or using a keyhole – known as laparoscopic – technique. Open surgery uses a cut to the side of your abdomen through which the kidney is removed. With keyhole surgery, removal is done via three or four 1cm cuts. A laparoscope (thin tube with a light and camera on the end) is then inserted through the cuts. The camera sends pictures to a TV screen so that the surgeon can see the kidney and surrounding tissue. One of the cuts will be enlarged enough to enable the kidney to pass through once it has been disconnected from the surrounding tissues and blood vessels.

The surgery is carried out under a general anaesthetic (you are asleep). You should expect to stay in hospital for 1-2 nights.

The keyhole method of kidney removal has been found to cause less blood loss and fewer complications than the open method and also has a shorter recovery time. The open method is now only used for complicated cases or when the kidney is very large.

Is there an alternative treatment?

Your consultant will have investigated the treatment options and is offering a kidney removal surgery as the first line recommended treatment. At the same time, your consultant and clinical nurse specialist are happy to discuss alternative options with you.

What are the risks and side effects?

Any operation and anaesthetic carries risks. These are generally small and not doing the operation may carry a greater risk. You can discuss the risks with the surgeon and the anaesthetist. It is important that you understand what is going to happen to you before the operation and you will be asked to sign a consent form before surgery. You can change your mind and may withdraw your consent at any time. Possible side-effects include:

- Shoulder tip pain and abdominal bloating – this is due to gas being put in to inflate the abdominal cavity during keyhole surgery to make the structures easier to see. Mild painkillers are usually adequate to control the pain.

- If you have had open surgery, you are likely to have more pain so will probably need stronger painkillers. Your anaesthetist will discuss the different analgesia options with you.
- Occasionally, infection or a hernia may occur in one or more of the cuts with keyhole surgery. These will require further treatment. This happens very rarely with open surgery.
- Rarely, bleeding can occur during keyhole surgery so that the surgeon has to convert to open or further surgery.
- Rarely, damage to the lung cavity occurs during surgery. This can be repaired without any extra incisions.
- Very rarely, recognised or unrecognised injury to surrounding organs or blood vessels may occur during keyhole surgery requiring conversion to open surgery or further surgery.
- Very rarely, problems with the anaesthetic or heart or blood vessel complications may result in transfer to the Intensive Care Unit. Such complications include chest infection, clot(s) on the lungs or in the legs, stroke or heart attack. These are risks that apply to many types of surgery but are very rare.

What do I need to bring with me into hospital?

Please bring with you all of your usual medication in its original packaging. Please bring a change of clothes, a night-gown or pyjamas, slippers and all of the toiletries that you may need, including any creams or ointments. A dressing-gown would be useful as well as a box of tissues or hand wipes. You may wish to bring some reading material and some extra supplies such as orange squash or small cartons of juice drinks.

What will happen before the operation?

After you have been seen by a doctor in the outpatients clinic, you will need to attend the Pre-Operative Assessment Unit. An assessment will take place to make sure that you are fit to have an anaesthetic. At this assessment you will be asked to answer some general health questions. A nurse will record your blood pressure, pulse, weight, height and lung function (peak flow). A urine and a blood sample will also be taken. You may also require an ECG (heart tracing) or x-ray. If you need a follow-up assessment to complete all the documentation, an appointment which is convenient for you will be arranged at this assessment. You will be reviewed by your consultant in clinic where you will receive factual and complete information about what to expect during your stay in hospital.

When do I come into hospital?

You will be admitted to the ward the morning of your operation. The date will be confirmed in a letter from the waiting list office, even if you have already been given a date by the surgeon.

What happens when I am admitted?

A nurse will check all your information with you, including contact details for next of kin. You will be requested to wear an identity bracelet at all times whilst you are an inpatient. A nurse will check your blood pressure, and take blood and urine samples.

What can I eat and drink before the operation?

It is important for you to eat and drink up to the times instructed. Feel free to have a light supper prior to going to bed in addition to your dinner. You will be given four cartons of a lemon flavoured drink specially designed to give your body nourishment and to help your recovery. On the morning of your surgery you will be given a further two cartons of this drink and you will also be encouraged to drink clear fluids up until two hours before your surgery. The nursing staff on the ward will be able to tell you when this will be.

What will happen on the morning of the operation?

You will be seen on the admission suite by the consultant anaesthetist and the consultant surgeon. They will explain to you the method of pain relief that will be used and also will be able to answer any questions that you may have about the operation. The consultant surgeon may ask you to sign a form which gives consent for the surgeon to operate on you. However, in some cases this will have been done already in the outpatients department.

The nurse will give you a hospital gown and will ask you to remove any make-up, dentures, contact lenses, jewellery (except wedding rings) and other prostheses.

We strongly advise you not to bring in any valuables. Please ask a friend or relative to take them home. If this can't be helped, please hand in such items to the ward staff.

How long will I be away from the ward?

Although the operation itself is usually not more than a couple of hours you will be off the ward much longer than this length of time. There will be time in the anaesthetic room when you will be connected up to the monitoring equipment and there will be time in the recovery room afterwards when you are waking up after your operation.

What happens in the anaesthetic room?

In the anaesthetic room you will have drip lines inserted into the veins in your arms – fluid drips are in place for the first day only. When the anaesthetist is happy that all of the monitoring equipment is fitted, then you will be sent off to sleep.

What will I feel like when I wake up?

You will wake up gradually in the recovery room and may still feel a little sleepy. There will be some extra oxygen to help you breathe and a fluid drip in the arm. You may have a pelvic drain in place to collect fluid. Occasionally, you may feel sick or have some pain. It is important to tell the staff, who can provide medication to relieve these symptoms. When you are fully awake and ready to return to the ward, the nursing staff will accompany you back there. You will have a urinary catheter (a tube into your bladder) and the nurses will measure your urine output hourly and monitor you closely as you wake up. This is all routine after a general anaesthetic.

What will happen the night after my operation?

You will be encouraged to practice deep breathing and to move your legs around. Depending on what time you return to the ward, you will be assisted by the staff to get out of bed for two hours. You may drink whatever you like after your surgery. It is important to eat and drink early after your operation and you will be encouraged to do so. You will be monitored quite closely during this period and you may need to be woken up during the night to have your blood pressure and urine output checked hourly.

What can I eat after my operation?

You will be able to eat and drink on your return to the ward and your fluid drip will be removed from your arm once you are drinking properly.

How quickly will I be up and about?

Depending on the time you come back to the ward you may be able to get up on the day of your surgery. If not then you will be assisted by the physiotherapist or one of the nurses to walk and to remain out of bed for 6-8 hours on the following day. It is important to get moving very soon after surgery as this reduces the risk of clots forming in your legs or lungs and chest infections. This amount of time out of bed increases every day.

Prevention of blood clots and pain relief

You will be given tiny injections of a drug called enoxaparin to help prevent blood clots. If you have an epidural or PCA this will usually be removed after 24-48 hours and you will be given tablets for pain relief instead.

When will I be discharged?

We expect you to be in hospital between 1 and 2 days. Before you go home, your pain will be well controlled on tablets. You will be given a supply of any new tablets that we have started you on before you leave. You must be eating and drinking and you need to be back to your mobility baseline.

What will happen after I am discharged?

You will then have an appointment to be seen at the hospital in the outpatients department to discuss any results from tests on the kidney that we may have taken away, and also to check that you are recovering well.

At home

Important: If the wounds are red and feel hot to touch or are leaking fluid or very painful please visit your GP or telephone your GP's surgery and ask for your district nurse to do a home visit as these are signs of a wound infection and may need treating urgently with antibiotics.

Once you start passing urine normally, if you have a burning/stinging sensation or notice an offensive smell you will need to visit your GP as these are often signs of an infection in your urine and you may need antibiotic treatment.

It is sensible to avoid heavy lifting and driving for 2-3 weeks after the operation, since any sudden increase in abdominal pressure can cause pain in the wounds. Exercise should be increased gradually. Start with short walks and gentle exercise. Eat a healthy diet with plenty of fluids. Fresh fruit and vegetables are important to keep your bowels regular.

You can return to work when you feel fit and depending on your job. Usually, 2-3 weeks off work are needed following discharge. Sexual intercourse can be resumed 3-4 weeks after the operation.

After any surgery you may feel tired and rather emotional for a number of weeks. This is quite normal, but if you feel depressed it is important to let your GP know.

Useful organisations

British Association of Urological Surgeons www.baus.org.uk

Publications and consent documents for download.

Who can I contact for more help or information?

Hopkins Ward 0118 322 7771

Uro-oncology nurse specialists 0118 322 7905

Urology Clinical Admin Team (CAT 3a) 0118 322 8629 or email rbb-tr.CAT3A@nhs.net

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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Next review due: February 2025