Kidney Health Australia

Fact sheet

Localised Kidney Cancer

Introduction

Our series of kidney cancer fact sheets have been developed to help you understand more about kidney cancer. This fact sheet provides information about localised kidney cancer. Localised kidney cancer is cancer that has not spread from the kidney to the other parts of the body.

For more information relating to other aspects of kidney cancer please see our other fact sheets:

- Kidney Cancer
- Diagnosis and Types of Kidney Cancer
- Support for Kidney Cancer
- Advanced Kidney Cancer
- Advanced Kidney Cancer – Dealing with the side effects of medication: targeted therapy
- Kidney Cancer – Make the most of your visit to the doctor

These fact sheets are meant as an introduction only and are not meant to be a substitute for your doctor's or healthcare professional's advice. Always consult your doctor or healthcare professional for more advice.

How is localised kidney cancer treated?

Once you have been diagnosed with localised kidney cancer your doctors will discuss with you your treatment options and the expected results. The most common treatment for localised kidney cancer is surgical removal. However, other options are available. Your treatment options will depend on your general health and the stage of kidney cancer. All treatments have benefits and side effects, which need to be discussed with your doctor before you make any decisions.

The most common treatment for localised kidney cancer is surgical removal.

Active surveillance

Strange as it may seem, in some people with small kidney tumours (less than 3cm), the first best treatment is observation, or *active surveillance*. Active surveillance involves closely monitoring the kidney tumour with regular scans and visits to the doctor. No treatment is given unless the tumour gets larger.

Surveillance is a common option for small tumours. This is because sometimes a small tumour may be benign (not cancer). Also, if it is cancer, small cancers grow slowly and are unlikely to spread elsewhere. Surveillance may help avoid an operation or the side effects of other treatments. It also avoids the loss of kidney function associated with having a kidney surgically removed. This is particularly important if you are older or have other significant medical problems.

Active surveillance is a good option for small tumours.

People who choose active surveillance with their doctors must continue to have regular follow-up care, in case the cancer starts to grow.

Surgery

With a larger cancer or a growing cancer in the kidney, surgery is usually the first choice of treatment. Surgery to remove a kidney is called a nephrectomy and it is done by a specialist surgeon called a urologist.

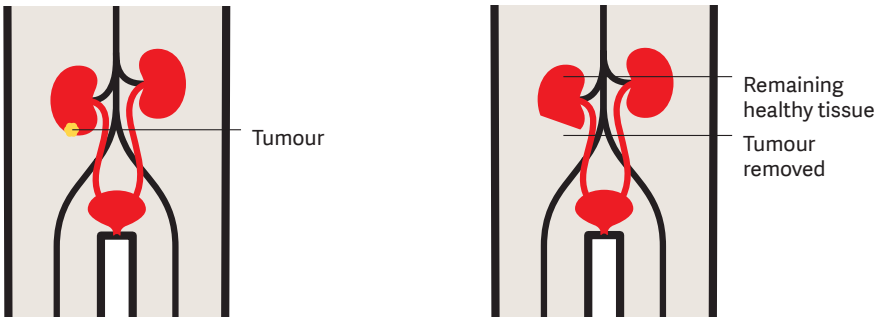
Surgery may either remove a part of the kidney, a partial nephrectomy, or the whole kidney, in which case it is called a radical nephrectomy.

If one kidney, or part of a kidney, is removed, the remaining kidney gets bigger and heavier. It works harder and usually provides up to 75% of normal kidney function rather than the expected 50%.

Most people are able to live quite normally with just one functioning kidney.

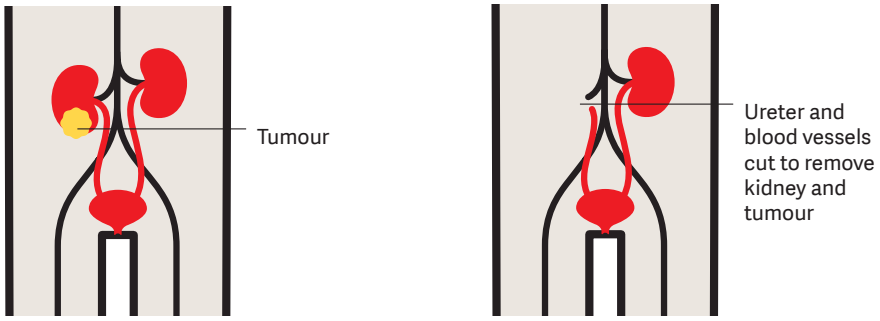
Partial nephrectomy

A partial nephrectomy is recommended if the cancer is small (usually less than 4cm) and in a position in the kidney that is easy to get to by the surgeon. The aim is to remove the part of the kidney that has been affected by the tumour, and leave as much of the healthy kidney as possible. The remaining part of the kidney can continue to do its work.



Radical nephrectomy

If the cancer is larger or has started to spread to the local lymph nodes then the whole kidney is usually removed. A small part of the ureter and the surrounding fatty tissue is normally removed as well. This is known as a radical nephrectomy. The adrenal gland and near-by lymph nodes may also be removed.



How will the surgery be done?

Both partial and radical nephrectomies can be performed as open or laparoscopic surgery.

Open surgery

A large cut (incision) is made in the abdominal wall so the surgeon can access the kidney and tumour directly.

Laparoscopic surgery

Laparoscopic surgery is also known as keyhole surgery or minimally invasive surgery. Small cuts (incisions) are made in the abdominal wall. Long thin surgical instruments and a small camera (laparoscope) are put through these cuts to do the surgery. The camera gives a high-quality image of the operating area on a video monitor.

Robotic assisted nephrectomy

Another way of doing laparoscopic surgery is using a surgical robot system. Robotic assisted laparoscopic surgery is similar to traditional laparoscopic surgery except that the surgical instruments are attached to robotic arms which the surgeon controls from a work station. This method of surgery gives the surgeon a 3D view of the operating area that can be magnified up to 10 times. The improved view and more advanced tools gives the surgeon more precision and control.

People who have laparoscopic surgery generally have less pain after the operation, a quicker recovery and therefore a shorter stay in hospital. However, laparoscopic surgery is specialised and only available in some hospitals. Not all kidney cancers are suitable for laparoscopic surgery. Your surgeon can advise if this is an option suitable for you.

What should I do before the surgery?

You should discuss with your doctor exactly what you need to do before your surgery. In general you will be told not to drink, eat or smoke 6 hours before the operation. If you are taking any medication you should tell your doctor. You may need to stop taking it for a few days before the operation.

What should I expect after the surgery?

How long you stay in hospital will depend on what type of surgery you had (open or laparoscopic) and any other medical conditions you have. On average it will be around 3–7 days.

You will have an intravenous (IV) drip that is used to give you fluids and medications. You may also have other tubes coming out of your abdomen to drain any waste fluids.

For a few days after the surgery you will also have a urinary catheter. A urinary catheter is a small tube that drains urine from your bladder out through your urethra and into a bag. It is there to make sure your other kidney is functioning properly. A nurse will normally remove your catheter the day after surgery and you will be able to pass urine normally again. Removal of the catheter is painless.

You might experience some pain where you had the operation for up to 6 weeks. If you are in pain ask your doctor for some medication to help control it.

After having surgery you should expect to feel fatigued. You will feel more tired than normal, have no energy and find it difficult to concentrate. The fatigue can last from 6 weeks to a year after surgery.

What should I do when I get home from hospital?

Most people make a rapid recovery after their surgery but every person will recover differently. Follow the post-operative recovery instructions you were given when you left the hospital.

In general for the first 4–6 weeks after your operation you should:

- Drink plenty of water – 1–2 litres a day
- Do not lift anything heavy and avoid strenuous exercise
- Shower as normal
- Discuss any medications with your doctor
- Driving is usually allowed a week or two after surgery (depending on the type of surgery you had).

Things you can do to help manage fatigue:

- Get plenty of rest
- Ask family or friends to help out with every day activities such as cooking and cleaning especially in the first few weeks after surgery
- Take short naps during the day
- Get outside for some gentle exercise.

If you are working, it is recommended that you make arrangements for an appropriate amount of time off work to recover. This is usually a minimum of 6 weeks before returning to light duties.

You need to go back to see your doctor straight away if you:

- Develop a fever
- Have severe blood loss

What happens next? Follow-up care

Follow-up care is the care you receive after finishing your treatment. Follow-up care looks for whether the cancer has returned (recurrence) and the development of other health problems.

When you leave the hospital after surgery you will be given an *outpatient* appointment to see your doctor. This will be a few weeks after you have returned home from hospital. At this first appointment, your doctor will tell you the results of the surgery and discuss with you the plan for the rest of your care. Your doctor may also organise some further tests.

It is important to talk with your doctor about the possibility of the cancer returning at this appointment. Understanding your risk of recurrence and the treatment options may help you feel more prepared if the cancer does return. Like most cancers, the chance of kidney cancer returning is highest soon after treatment; the longer away from the treatment the more chance the cancer has been cured.

You will then see your doctor about every six months during the first few years after surgery, and then once a year after that. At some point you may choose to be followed up by your GP.

At each appointment your doctor will check to make sure that the cancer has not recurred or metastasised, and monitor your overall health. You may have a physical examination and tests such as blood tests or scans. Because you will have had one kidney or part of a kidney removed, you will need to have your kidney function and blood pressure monitored for the rest of your life.

What happens if the cancer returns?

If the cancer does return after the original treatment it may come back in the same place (called a local recurrence), nearby (regional recurrence), or in another place (distant recurrence).

You will need to have more tests to get as much information about the recurrence as possible. After testing is done, you and your doctor will talk about your treatment options.

For more information about treatment options available for recurrence see our fact sheet *Advanced Kidney Cancer*.

Are there any treatment options apart from surgery?

Although surgery is the treatment of choice for localised kidney cancer, there are other treatment options available. These might be useful if you:

- Are older and might have difficulty with surgery or postsurgical recovery
- Have medical conditions which might prevent surgery
- Have one kidney
- Have tumours in both kidneys, or a family history of multiple kidney tumours
- Have a cancer that has come back (recurred) after surgery
- Do not want to have surgery.

Stereotactic body radiotherapy (SBRT)

Radiotherapy uses high energy X-rays to kill cancer cells. Stereotactic body radiotherapy (SBRT) is a specialised form of radiotherapy that uses precise high dose radiation.

SBRT is non-invasive (no cuts or injections are needed). Because it is precise, and only targets the kidney cancer, there is limited damage to the surrounding healthy tissues. Side effects can occur, the most common of which is fatigue. SBRT is a specialised procedure and not available at all hospitals.

Stereotactic body radiotherapy

- Generally done as an outpatient procedure
- You will need between 1-5 treatments
- An intravenous (IV) drip is inserted in a vein
- A CT, MRI or PET scanner is used to locate the exact position of your kidney tumour
- You will need to stay very still so a specialised 'blanket' is put over you to reduce your movement.

Radiofrequency ablation (RFA) and microwave ablation

Ablation is a word used to describe the destruction of body tissue. Radiofrequency ablation and microwave ablation use energy waves to essentially cook and destroy the cancer. Ablation is generally done via a needle inserted into the kidney through the skin (percutaneous). It can also be done using open or laparoscopic surgery. Only tumours less than 4cm in size can be treated by ablation. Side effects include pain and fever, which can be treated with medications.

Ablation

- Generally done as an outpatient procedure
- An intravenous (IV) drip is inserted in a vein
- Local anaesthetic is given and you may be given some medicine to make you feel a little sleepy
- A needle is inserted into the kidney tumour using a CT scanner to locate the exact position of the tumour. The radiofrequency or microwaves are passed down the needle into the tumour.

Cryotherapy

Cryotherapy uses cold energy to destroy cancer cells. Cryotherapy is not widely available in Australia.

Who can I contact for more support & information?

Both Kidney Health Australia and the Cancer Council offer a free and confidential service for further support and information.

Kidney Health Australia Cancer Support & Information Service
Kidney Health Australia provides support and information for kidney cancer patients, their families and carers in a variety of different ways.

Free call: **1800 454 363**
kidneycancer@kidney.org.au
kidneycancer.org.au
forum.kidney.org.au

Kidney® Health
Cancer Support & Information Service

Cancer Council offers reliable cancer information and support to anyone affected by cancer, including patients, carers, families, friends, and healthcare professionals. They can connect you with others who have been through a similar experience and link you to practical, emotional and financial support in your area.

Free call: **13 11 20**
cancer.org.au

Cancer Council 13 11 20

For more information about kidney or urinary health, please contact our free call Kidney Health Information Service (KHIS) on 1800 454 363.

Or visit our website **kidney.org.au** to access free health literature.

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or healthcare professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person's experience is individual and that variations do occur in treatment and management due to personal circumstances, the healthcare professional and the state one lives in. Should you require further information always consult your doctor or healthcare professional.

If you have a **hearing or speech impairment,** contact the National Relay Service on **1800 555 677** or **relayservice.com.au**

For all types of services ask for 1800 454 363

What does that word mean?

Abdomen – The part of the body between the chest and the hips. It contains the bladder, bowel, liver, kidneys, gall bladder, pancreas, spleen and stomach.

Active surveillance – A treatment plan that involves closely monitoring the kidney cancer but not giving any treatment unless the tumour gets larger. It is used to avoid or delay surgery or other treatments in certain circumstances.

Follow-up care – Care given to a patient over time after finishing treatment for a disease. Follow-up care involves regular medical check-ups, which may include a physical examination, blood tests and scans. Follow-up care looks for the development of other health problems and recurrence of cancer.

Incision – A surgical cut.

Laparoscope – A small tube with a video camera which is used to see structures in the abdomen and pelvis during laparoscopic surgery.

Laproscopic surgery – A method of surgery where the operation is done using thin surgical instruments and a laparoscope inserted through small incisions in the abdominal wall. Also known as keyhole or minimally invasive surgery.

Open surgery – The traditional type of surgery. A large incision is made in the skin and tissues for the surgeon to insert the instruments and get direct access to the operation field.

Partial nephrectomy – Surgical removal of the tumour only, the healthy kidney tissue is left untouched. Also known as nephron-sparing surgery.

Radical nephrectomy – The surgical removal of the whole of the kidney. If the cancer has spread to the adrenal gland, surrounding fatty tissues and lymph nodes they may be removed as well.

Recurrence – Return of the cancer after treatment.

Robotic surgery – A type of laparoscopic surgery where the surgical instruments are attached to a robotic arm that the surgeon controls.

Stereotactic radiotherapy (SBRT) – A specialised form of precise, high dose radiotherapy used to treat tumours in the body.

Urologist – A doctor who specialises in treating diseases of the urinary tract. If you need to have surgery for your kidney cancer your urologist will do the operation.