

Fact sheet

Kidney Cancer

1

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 the kidneys, cancer, kidney cancer, who kidney cancer is likely to affect, and symptoms of kidney cancer.

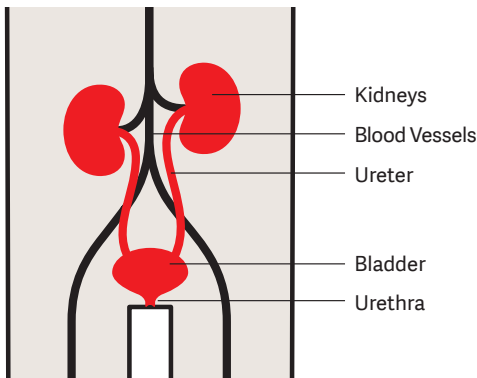
For more information relating to other aspects of kidney cancer please see our other fact sheets:

- Diagnosis and Types of Kidney Cancer
- Localised Kidney Cancer
- Advanced Kidney Cancer
- Support for 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.

What are kidneys?

The kidneys are organs of the urinary system – the part of the body that makes wee (urine).



- Most people are born with two kidneys.
- Each kidney is bean shaped and about the size of a fist.
- They are located on either side of your backbone (spine) just under the rib cage.
- The main job of your kidneys is to filter and clean blood by removing excess water, salts and waste products. These filtered materials are turned into urine.
- Urine flows from your kidneys, through narrow tubes called ureters to the bladder where it is stored. The urine passes out of your body through a tube called the urethra.
- In women the urethra is a short tube in front of the vagina. In men it is longer and passes through the prostate and penis.
- The adrenal gland sits on top of both kidneys and they produce hormones. Although not part of the urinary system, kidney cancer can spread to them.

What do the kidneys do?

Kidneys perform a number of very important jobs:

- Cleaning blood - kidneys filter your blood to remove wastes and toxins.
- Water balance – kidneys add excess water to other wastes, which makes your urine.
- Control blood pressure – kidneys keep your blood pressure regular.
- Vitamin D activation – kidneys manage your body's production of this essential vitamin, which is vital for strong bones, muscles and overall health.

Kidneys are the unsung heroes of the body! Your kidneys have many important roles to play in keeping your body healthy.

What is cancer?

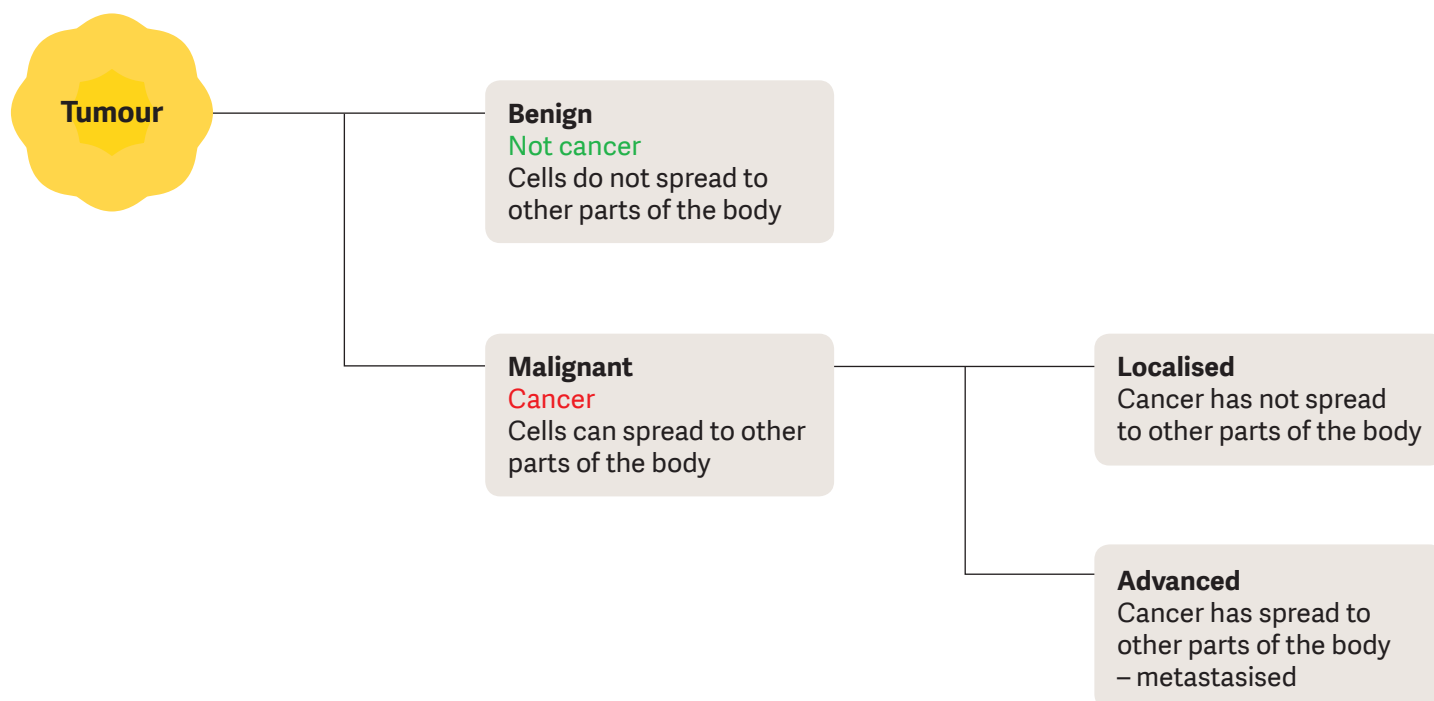
Cancer is a disease of the cells. We are made up of trillions of cells, which are the building blocks that make up our bodies. Our cells are constantly growing and dividing to make new cells. The new cells replace old or damaged ones. If our cells do not grow and divide in their normal and ordered pattern they can form a lump known as a tumour.

Tumours can be divided into two main types:

- **Benign tumours – not cancer**
The cells are in just one area and do not spread to other parts of the body
- **Malignant tumours – cancer**
The cells are able to spread to other parts of the body by travelling through the blood or lymphatic system.

Cancer can either be:

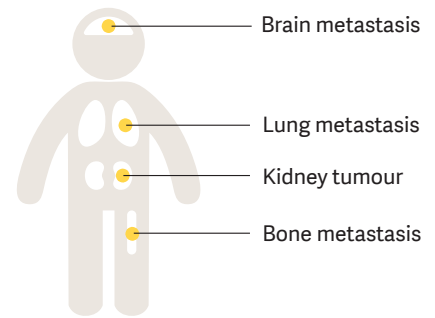
- **Primary cancer** – the original cancer. The cancer is named after the place where the cancer starts in the body. A cancer that has not spread to other parts of the body is called a localised cancer.
- **Secondary/metastatic cancer** – cells from the primary cancer spread (metastasise) to grow in another part of the body. A cancer that has spread from the primary site to other parts of the body is called advanced cancer.



What is kidney cancer?

Kidney cancer is a type of cancer that starts from the cells of the kidney. Early or localised kidney cancer is a cancer that has formed in the kidney but has not spread from the kidney. Metastatic or advanced kidney cancer is a cancer that has spread (metastasised) from the

kidney to somewhere else in the body. The most common sites for a kidney cancer to spread are the lymph nodes, lungs, brain and bones. Usually there is only one tumour in one kidney. More unusually, two or more tumours occur in the same kidney or in both kidneys.



How common is kidney cancer?

Kidney cancer is a relatively rare cancer – for every 100 people with cancer in Australia, only 2 to 3 of them will have kidney cancer. Every year around 3000 people are diagnosed with kidney cancer in Australia. About 1 in 3 of them will have advanced kidney cancer.



2.5 out of 100 cancers are kidney cancer



1 in 3 people with kidney cancer have advanced kidney cancer



What increases the risk of getting kidney cancer?

The exact cause of kidney cancer is not known but certain factors are known to increase a person's risk of developing of kidney cancer. These risk factors include:

60+ Age

Like most cancers, kidney cancer most often occurs in older people. The average age of a person with kidney cancer is 63. Kidney cancer is rare in children.

Gender

Men are twice as likely to be diagnosed with kidney cancer as women.

Smoking

People who smoke have almost double the risk of developing kidney cancer than non-smokers. Up to one-third of all kidney cancers are thought to be due to smoking. If a person stops smoking then this additional risk reduces to zero over time. Quitting at any time, at any age is a great idea. It's never too late.



Obesity

Being overweight or obese increases the risk of developing kidney cancer.



High blood pressure (hypertension)

High blood pressure has been found to be a risk factor for kidney cancer.



Hepatitis C infection

People with hepatitis C have an increased risk of developing kidney cancer.



Medications and toxic substances

Long term use of non-steroidal anti-inflammatory drugs is associated with an increased risk of developing kidney cancer. People regularly exposed to certain chemicals (including asbestos, lead, cadmium, dry-cleaning solvents, herbicides, benzene or organic solvents, petroleum products) may have an increased risk of kidney cancer.



Long-term dialysis and acquired cystic disease

Being on dialysis treatment over a long period of time may cause kidney cysts. Kidney cancer may develop from these cysts.



Family history of kidney cancer

People who have family members with kidney cancer, especially a sibling, are at increased risk. This accounts for only 3–5% of kidney cancer.



Specific genetic and hereditary conditions

There are several genetic and hereditary conditions that, if inherited, may make it more likely for tumours to develop.

Many people who get kidney cancer do not have any risk factors, and many people who have known risk factors don't develop kidney cancer.

What are the symptoms of kidney cancer?

Most people with kidney cancer have no symptoms. They are often diagnosed with kidney cancer when they have a scan or X-ray that their doctor ordered for another health problem.

When kidney cancer does cause symptoms, they can include:

- blood in the urine or changes in urine colour to dark, rusty or brown (haematuria)
- pain in lower back or one side which is not due to an injury
- pain or lump in the abdomen or side
- weight loss
- constant tiredness
- newly developed high blood pressure
- fever or night sweats which are not linked with any other conditions.

Some of these symptoms can also be caused by other illness, such as a urine infection or a muscle twinge. So if you experience any of these symptoms it does not necessarily mean you have kidney cancer.

However, always talk to your doctor if you are experiencing any of these symptoms.

Not all people with kidney cancer have symptoms and not all people with symptoms have kidney cancer.

What is the treatment for kidney cancer?

In general the treatment for kidney cancer depends on whether the kidney cancer is:

- **Localised** – where the cancer has not spread beyond the local kidney environment, or
- **Advanced** – where the cancer has metastasised to other organs in the body.

For more information about treatment of localised and advanced kidney cancer please see our fact sheets:

Localised Kidney Cancer and *Advanced Kidney Cancer*.

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



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



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?

Adrenal gland – Triangular glands on top of each kidney that produce adrenaline and other hormones.

Benign tumour – Not cancer – a tumour that will not spread to the rest of the body.

Bladder – The organ that stores urine.

Lymph nodes – A small round gland that makes up part of the lymphatic system. They contain white blood cells that remove bacteria, cancer cells and foreign particles from the body.

Lymphatic system – A network of tissues, vessels, ducts and nodes that remove excess fluid from tissues, absorb and transport fat, and produce immune cells.

Malignant tumour – Cancer – a tumour that grows continuously or in spurts. Malignant tumours can metastasise, which means they can spread to other organs.

Metastasis – The secondary malignant growths at a distance from a primary site of cancer. If there is more than one metastasis they are known as metastases.

Metastasise – The spread of cancer cells from the primary cancer to other parts of the body to become secondary cancers or metastasis.

Primary cancer – The original cancer. The cancer is named after the part of the body that the cancer starts in.

Prostate – A gland in the male reproductive system that produces most of the fluid that makes up semen.

Renal – Another word for the kidney.

Secondary cancer – A cancer that has spread from the primary cancer to other parts of the body. Also known as metastatic cancer.

Tumour – An abnormal growth of tissue on or in the body. A tumour may be benign or malignant. Other words that may be used include growth, neoplasm, lump, mass, or shadow.

Ureters – Tubes that carry urine from each kidney to the bladder.

Urethra – Tube that carries urine from the bladder to the outside of the body.

Urinary system – The system that removes waste from the blood and gets rid of it from the body in the urine. It includes the kidneys, ureters, bladder and urethra.