Kidney cancer

Summary

- Kidney cancer is most common in people over the age of 50 years.
- Most kidney cancers are found when the doctor is checking for something else.
- Surgery is the most common treatment for kidney cancer.

The kidneys are part of the body's urinary system, which filters waste products out of the blood in the form of urine. To find out more about how the kidneys and urinary system work, read kidney basics.

Kidney cancer is cancer that starts when the cells of the kidney change and grow out of control. Each year, more than 3000 Australians find out they have kidney cancer. It is twice as common in men as women and most people with kidney cancer are aged 50 years or older.

Signs and symptoms of kidney cancer

Most people with kidney cancer have no symptoms. Doctors find most kidney cancers when they are checking for something else. Signs and symptoms can include:

- blood in your urine – this may be obvious, or the urine may look dark, rusty or brown
- pain in your lower back or side
- a lump in your abdomen
- constant tiredness
- unexplained weight loss
- fever (not caused by a cold or flu).

Not everyone with these symptoms has kidney cancer. If you have any of these symptoms or are worried, always see your doctor.

Risk factors for kidney cancer

There are some things that can make you more likely to develop kidney cancer. These are called risk factors and they include:

- smoking – chemicals in cigarettes can cause kidney cancer. Around one in three cases of kidney cancer may be due to smoking
- obesity – excess body fat may cause changes in certain hormones that can lead to kidney cancer
- high blood pressure
- kidney failure – people with end-stage kidney disease
- family history – people who have family members with kidney cancer, especially a sister or brother
- inherited conditions – about 2 to 3% of kidney cancers occur in people who have certain inherited syndromes, including von Hippel-Lindau disease, hereditary papillary RCC and Birt-Hogg-Dubé syndrome
- exposure to toxic substances at work – the risk may be higher after regular exposure to some chemicals, such as some metal degreasers, arsenic or cadmium.

Having these risk factors doesn't mean you will develop kidney cancer. Often there is no clear reason for getting kidney cancer. If you are worried about your risk factors, ask your doctor for advice.

Tests for kidney cancer

Your doctor may do some tests to check for kidney cancer:
• urine tests – for signs of kidney cancer
• blood tests – to check your general health.

Your doctor might ask you to have further tests. These are some the tests you may have:

• ultrasound – a scan on the outside of your abdomen to check for cancer
• CT scan – a scan that takes pictures of the inside of the body
• MRI scan – a scan that uses magnetism and radio waves to take pictures of the inside of the body
• bone scan – a scan that uses dye to show changes in your bones
• cystoscopy – (if you have had blood in your urine) the doctor puts a small camera into your bladder to see inside
• biopsy – the doctor takes a small sample of the cells from the kidney to check for signs of cancer.

Types of kidney cancer

Most kidney cancers are renal cell carcinoma (RCC), sometimes called renal adenocarcinoma. Usually only one kidney is affected, but in rare cases both kidneys can be affected. As the cancer grows, it can spread to areas near the kidney. It may also spread to other parts of the body, such as the lungs or bones.

RCC is the most common type of kidney cancer, but there are other less common types:

• urothelial carcinoma, sometimes called transitional cell carcinoma, behaves and is treated like bladder cancer, not like RCC
• Wilms tumour, sometimes called nephroblastoma, is the most common type of kidney cancer in younger children, but it is still rare.

Stages and grades of kidney cancer

Stages and grades of cancer describe how far it has spread and how quickly it is growing.

Stages

The stage of a cancer means how far it has grown in your body. Your doctor will use the results of your tests to assign a stage.

• Stages 1 and 2 are considered early kidney cancer (only the kidneys are affected).
• Stages 3 and 4 are considered advanced kidney cancer (the cancer has spread beyond the kidneys).

Ask your doctor or nurse to explain the stage of the cancer. You can also read more from Cancer Council about kidney cancer staging.

Grades

The grade of the cancer means how quickly a cancer might grow. Knowing the grade helps your doctor work out the best treatment plan for you.

There are different systems for grading kidney cancer. The Fuhrman system has been widely used in Australia, but a newer system called the International Society of Urological Pathology (ISUP) system has been introduced. Both systems grade kidney cancer from 1 to 4, with grade 1 being the slowest growing and grade 4 the fastest growing.

Prognosis and survival rates for kidney cancer

When someone is diagnosed with kidney cancer, their doctor will give them a ‘prognosis’. A prognosis is the doctor’s opinion of how likely the cancer will spread and the chances of getting better. A prognosis depends on the type and stage of cancer, as well as the person’s age and general health.

In most cases, the earlier that kidney cancer is diagnosed, the better the chance of successful treatment.

If you have kidney cancer, your doctor will talk to you about your individual situation when working out your prognosis. Every person’s experience is different, and there is support available to you.

Treatment for kidney cancer
Treatment for kidney cancer depends on how quickly the cancer is growing. Treatment is different for early kidney cancer and advanced kidney cancer.

You might feel confused or unsure about your treatment options and decisions. It’s okay to ask your treatment team to explain the information to you more than once. It’s often okay to take some time to think about your decisions.

**Treatment for early kidney cancer**

Treatment for early kidney cancer may include:

- active surveillance
- surgery
- other treatments.

**Active surveillance**

When small tumours are found in the kidney, they are less likely to be aggressive and might not grow during a person’s lifetime. In this case, your doctor might recommend active surveillance, also known as observation. This involves regular ultrasounds or CT scans. If these imaging tests suggest that the tumour has grown at any time, you will be offered treatment.

**Surgery**

Surgery is the main treatment for kidney cancer that has not spread outside the kidney. Depending on the type of kidney cancer, the grade and stage of the cancer, and your general health, you might have one of the following operations:

- removing part of the kidney, sometime called a partial nephrectomy – this is the most common option for small tumours within the kidney. Only the cancer and a small part of the kidney are removed
- removing the whole kidney, sometimes called a radical nephrectomy – this is the most common operation for large tumours. The whole affected kidney, a small part of the ureter and the surrounding fatty tissue are removed. The adrenal gland and nearby lymph nodes might also be removed.

**Other treatments**

Surgery is the most common treatment for early kidney cancer. If you are not well enough for surgery and the tumour is small, your doctor may recommend another type of treatment:

- radiofrequency ablation – uses heat from a needle to kill the cancer cells.
- stereotactic body radiation therapy – uses highly targeted radiation to destroy or damage the cancer cells.

**Treatment for advanced kidney cancer**

Treatment for advanced kidney cancer may include:

- active surveillance
- surgery
- targeted therapy
- immunotherapy
- radiation therapy.

**Active surveillance**

Sometimes when kidney cancer has spread it grows so slowly that it won’t cause any problems for a very long time. Because of this your doctor may suggest active surveillance, also know as observation, involving regular ultrasounds or CT scans. If the cancer starts to grow quickly or causes symptoms, your doctor will recommend active treatment.

**Surgery**

Surgery to remove kidney cancer when the cancer has spread to other parts of the body is called cytoreductive surgery. This can involve removing the primary cancer in the kidney by nephrectomy, or removing some or all of the
tumours that have grown in other parts of the body.
Generally, surgery is not recommended if you are unwell or if the cancer has spread to many places in the body.

**Targeted therapy**
This is a type of treatment that attacks specific parts of cancer cells with medicines to stop the cancer growing and spreading. The type of targeted therapy most used to treat advanced kidney cancer is a group of medicines called small molecule inhibitors.

**Immunotherapy**
Immunotherapy uses your own immune system to treat cancer. Nivolumab is a checkpoint inhibitor used to treat advanced kidney cancer. Nivolumab is usually administered into a vein (intravenously). Ask your doctor for more information about immunotherapy for kidney cancer.

**Radiation therapy**
Radiation therapy uses a controlled dose of radiation, such as focused x-ray beams, to kill or damage cancer cells. It is also known as radiotherapy. Radiation therapy might be used in advanced kidney cancer to shrink a tumour and relieve symptoms.

**Side effects of treatment for kidney cancer**
All cancer treatments can have side effects. Your treatment team will discuss these with you before you start treatment. Talk to your doctor or nurse about any side effects you are experiencing. Some side effects can be upsetting and difficult, but there is help if you need it. Call Cancer Council (13 11 20, or 13 14 50 for an interpreter) or email askanurse@cancervic.org.au to speak with a caring cancer nurse for support.

**Sexuality and kidney cancer**
Having kidney cancer and treatment can change the way you feel about yourself, other people and sex. These changes can be very upsetting and hard to talk about. Doctors and nurses are very understanding and can give you some support. You can ask for a referral to a doctor or therapist who specialises in body image, sex and relationships.

**Living with advanced cancer**
Advanced cancer usually means cancer that is unlikely to be cured. Some people can live for many months or years with advanced cancer. During this time palliative care services can help.
Most people continue to have treatment for advanced cancer as part of palliative care, as it helps manage the cancer and improve their day-to-day lives. Many people think that palliative care is for people who are dying but palliative care is for any stage of advanced cancer. There are doctors, nurses and other people who specialise in palliative care.
Treatment can include chemotherapy, radiation therapy or another type of treatment. It can help in these ways:
- slow down how fast the cancer is growing
- shrink the cancer
- help you to live more comfortably by managing symptoms, like pain.
Treatment depends on several things:
- where the cancer started
- how far it has spread
- your general health
- your preferences and what you want to do.
Ask your doctor about treatment and palliative care services that may help you.

**Support for carers, family and friends**
Caring for someone with cancer can be difficult sometimes. If you are caring for someone with kidney cancer,
these organisations can help:

- **Cancer Council Victoria**, Tel. **13 11 20**
- **Carer Gateway** Tel. **1800 422 737**
- **Carers Australia** Tel. **1800 242 636**

**Where to get help**

- Your **GP (doctor)**
- Your treatment team
- **Cancer Council Victoria, Information and Support Service** Tel. **13 11 20**
- **Multilingual Cancer Information Line, Victoria** Tel. **13 14 50**
- **WeCan website** helps people affected by cancer find the information, resources and support services they may need following a diagnosis of cancer.
- **Kidney Health Australia** Tel. **1800 454 363**
- **NURSE ON CALL** Tel. **1300 60 60 24**

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