

---

## Kidney cancer

---

### Summary

- Kidney cancer is more common in people over the age of 55 years.
  - Most kidney cancers are found when the doctor is checking for something else.
  - A person is usually able to live quite normally with just one kidney.
  - 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 (wee). About 720 Victorians are diagnosed with kidney cancer every year. Kidney cancer is more common in people over the age of 55 years and affects more men than women.

### About the kidneys

The kidneys are two bean-shaped organs located on either side of the middle of the back, just under the ribs. As well as filtering blood, the kidneys make three important hormones, which are:

- **renin** – helps regulate your blood pressure
- **calcitrol** – helps to control your body's calcium levels
- **erythropoietin** – stimulates your bone marrow to make red blood cells.

### Risks and causes of kidney cancer

The causes of kidney cancer are unknown. However, there are several factors that may increase your risk including:

- **Cigarette smoking** – around one in three cases may be due to smoking.
- **Faulty genes** – some people inherit a faulty gene, which puts them at a higher risk of developing kidney cancer.
- **Mild pain-relieving medication** – such as overuse of medication containing phenacetin. This chemical is not used in modern pain-relieving medication. However, people who took those containing phenacetin in large quantities before it was banned, may still be affected. There is also early-stage research suggesting that others such as paracetamol, aspirin and 'non-steroidal anti-inflammatory drugs' (NSAIDs) such as ibuprofen (Nurofen), may slightly increase the risk of kidney cancer. Researchers say it is unlikely that occasional or low-dose use would be harmful.
- **Obesity** – having a waist circumference of 100 cm or greater could increase your risk.
- **Exposure to asbestos or cadmium** – this applies to some people who were exposed to these substances in their jobs.
- **People with kidney disease needing regular dialysis** – a procedure used for people who have kidney failure. Dialysis is a technique that removes extra water and waste products from your body, which is what your kidneys would normally do. The longer you are on dialysis, the greater your risk of getting kidney cancer. The increased risk is most likely due to the kidney disease and not directly due to dialysis.

### Types of kidney cancer

Around 85 per cent of kidney cancers are renal cell carcinomas. These cancers begin to grow in the lining of one or both kidneys. Without treatment, this type of cancer can spread to other parts of your body.

Other (less common) types of kidney cancer include:

- **transitional cell carcinoma** – starts in the join between the kidney and its ureter (the tube that drains urine from the kidney into the bladder)

- **renal sarcoma** – a rare type of kidney cancer
- **Wilms' tumour** – a rare type of kidney cancer that affects children.

### Symptoms of kidney cancer

In its early stages, when the cancer is very small, you may not have any symptoms. Sometimes, the disease is found by accident, when your doctor is investigating another condition.

In its later stages, when the cancer is larger, symptoms can include:

- blood in the urine (haematuria) – this is the most common symptom
- a pain or ache in the lower back or side
- a lump in the area of the kidney
- tiredness
- unexplained and sudden loss of appetite and weight loss
- fever with sweating.

It is important to remember that most people who go to the doctor with blood in their urine do not have kidney cancer. It is more likely to be caused by an infection, kidney stones or an enlarged prostate (for men). However, if you have any of these symptoms, you must see your doctor.

### Diagnosis of kidney cancer

The first tests you will have are blood and urine tests. If your doctor picks up blood in your urine, they may refer you to the hospital to have further tests, including:

- **More urine and blood tests** – these check for abnormal levels and enzymes that may indicate cancer.
- **Ultrasound scan** – an ultrasound is a painless procedure that uses sound waves to create a picture of the inside of the body and can show any growths inside the kidney. A gel is applied to your skin over the kidney and a transducer moves across the skin, sending the soundwaves back to the computer.
- **Cystoscopy** – a small telescope is threaded through the urethra to view the bladder and check where blood is coming from. The tip of the telescope can be extended into the ureters (called a ureteroscopy). You would have a general anaesthetic for this procedure.
- **CT IVP (computed tomography intravenous pyelogram scan or three-phase renal scan)** – a type of x-ray that gives a three-dimensional picture of your kidneys, ureters and bladder, after contrast dye is injected into a vein.
- **MRI (magnetic resonance imaging)** – this is similar to the CT scan, but radio waves and a strong magnetic field are used to give detailed cross-section pictures of organs. MRI may be used if a person has an allergy to contrast dye, is pregnant or a more detailed examination of the soft tissues is required.
- **Blood vessel tests (angiogram or venogram)** – these tests look at blood flow. This helps to plan surgery and find out if the tumour is near any major blood vessels in the kidneys.
- **Bone scan** – may be used if a person is found to have an advanced tumour or bony lesions from a CT. A radioisotope is injected into a vein and several hours later the scan is done. This gives time for the bones to absorb the dye as it collects in areas of abnormal bone growth. The scan measures the radioactive levels.

Test results can take a few days to come back. It is very natural to feel anxious while waiting to get your results. It can help to talk to a close friend or relative about how you are feeling, or you can contact your local cancer information and support service on 13 11 20 and speak with a cancer nurse.

### Treatment of kidney cancer

Treatment for kidney cancer will depend on the type of cancer, as well as the stage of the cancer. It may also depend on the size of the cancer as tumours that are less than 4cm are unlikely to be aggressive and may not grow during a person's lifetime, posing minimal risk to health.

Treatment may include:

- **Surgery to remove the whole kidney (radical nephrectomy)** – other affected tissues, such as nearby lymph nodes, are also taken out and examined to see if the cancer has spread. The surgery may be an open procedure where the kidney is removed through an incision in the side of the abdomen or a keyhole

procedure where the surgeon removes the kidney through a small incision using a special instrument. You can live with only one healthy kidney.

- **Surgery to remove part of your kidney (partial nephrectomy)** – this means that the surgeon will only take away the diseased part of the kidney. This is preferred for people who have renal cell carcinoma in both kidneys, have only one functioning kidney or for some people with small cancers.
- **Targeted therapies** – these are medications that attack specific cancer cells or block receptors that help the cancer cells grow or stop blood vessels growing. They may be administered orally or intravenously, and in combination with chemotherapy drugs.

If it is not possible for you to have surgery to treat your kidney cancer due to other medical problems, your doctor may suggest other options. These may include:

- **Arterial embolisation** – this is a method of cutting the main blood supply to the cancer.
- **Radiation ablation** – RFA use heat generated by an electrical current that is passed through a fine probe to treat cancers that are less than four centimetres in size and located near the edge of a kidney. This is done under the guidance of a CT scan.
- **Radiotherapy** – radiation targets and kills cancer cells. This is not commonly used in people whose kidney cancer is curable.
- **Biological therapy** – is also known as immunotherapy. This is the use of substances that are naturally produced within the body to encourage the immune system to fight disease. Interferon and interleukin have been used to treat some kidney cancers. While they are 'natural' substances, they can sometimes cause severe side effects. Immunotherapy is not a standard treatment in Australia for kidney cancer, but is available in some centres.
- **Complementary and alternative therapies** – when used alongside your conventional cancer treatment, some of these therapies can make you feel better and improve quality of life. Others may not be so helpful and in some cases may be harmful. The Cancer Council Victoria booklet called [\*\*Understanding complementary therapies \(pdf\)\*\*](#) can be a useful resource.

If you do not have at least one working kidney, you would need to have dialysis for the rest of your life.

All treatments have side effects. These will vary depending on the type of treatment you are having. Many side effects are temporary, but some may be permanent. Your doctor will explain all the possible side effects before your treatment begins.

### **Research into kidney cancer**

Early detection and better treatment have improved survival for people with kidney cancer. Research for kidney cancer is ongoing. The [\*\*Cancer Research UK website\*\*](#) has information about research into kidney cancer.

Clinical trials can test the effectiveness of promising new treatments or new ways of combining cancer treatments. Always discuss treatment options with your doctor.

### **Your sexuality and kidney cancer**

Having kidney cancer and its treatment can affect the way you feel about your body, who you are, your relationships, the way you express yourself sexually and your sexual feelings (your 'sexuality'). These changes can be very upsetting.

Your medical team should discuss these issues with you before and during your treatment. If you feel you would like to discuss things further, ask your doctor for a referral to a counsellor or call the Cancer Council Helpline on **13 11 20**. The Cancer Council Victoria booklet called *Sexuality, intimacy and cancer* may also be helpful to read.

### **Caring for someone with cancer**

Caring for someone with cancer can be a difficult and emotional time. If you or someone you know is caring for someone with kidney cancer, there is support available. The Cancer Council Victoria booklet called *Caring for someone with cancer* may also be helpful to read.

### **When a cure for kidney cancer isn't possible**

If kidney cancer has been diagnosed in its later stages, the cancer may have spread to the point where a cure is

no longer possible. At this time, treatment focuses on improving quality of life by relieving the symptoms (this is called 'palliative' treatment).

You may be given chemotherapy, radiotherapy and surgery to help with this. You may be referred to a Palliative Care Service that will be able to provide specialist care and support for you and your family. You may also have medication to relieve pain, nausea and vomiting. The Cancer Council Victoria booklet called *Living with advanced cancer* and *Understanding Palliative Care* may be helpful to read.

### Where to get help

- Your **GP (doctor)**
- **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.

**This page has been produced in consultation with and approved by:**

Cancer Council Victoria

Content on this website is provided for information purposes only. Information about a therapy, service, product or treatment does not in any way endorse or support such therapy, service, product or treatment and is not intended to replace advice from your doctor or other registered health professional. The information and materials contained on this website are not intended to constitute a comprehensive guide concerning all aspects of the therapy, product or treatment described on the website. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions and to ascertain whether the particular therapy, service, product or treatment described on the website is suitable in their circumstances. The State of Victoria and the Department of Health & Human Services shall not bear any liability for reliance by any user on the materials contained on this website.

For the latest updates and more information, visit [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)

**Copyright © 1999/2019** State of Victoria. Reproduced from the Better Health Channel ([www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.