

## What is kidney cancer?

Kidney cancer occurs when abnormal cells within one kidney grow in an uncontrolled way.

There are two kidneys in the body, located on either side of the spine above the waist. Each kidney contains very small tubes, called tubules, which filter and clean the blood. Waste products removed from the blood form urine, which is taken from each kidney to the bladder through a tube called a ureter. The bladder stores urine until it is released from the body through the urethra.<sup>1</sup>

## What are the different types of kidney cancer?

There are two main types of kidney cancer. These are named after the cell type in which the cancer first develops.

- ▶ The most common type of kidney cancer starts in the lining of the tubules in the kidney. This is called renal adenocarcinoma.<sup>1,2</sup> Approximately 85 per cent of cases of kidney cancer start in the lining of the tubules.<sup>2</sup>
- ▶ Transitional cell carcinoma of the renal pelvis or ureter starts in cells lining the renal pelvis of the kidney or the ureter.<sup>3</sup>

## What are the symptoms of kidney cancer?

There are often no symptoms of kidney cancer until the late stages of the disease.<sup>4</sup>

The most common symptoms of kidney cancer are:

- ▶ blood in the urine – this is called haematuria<sup>4</sup>
- ▶ a lump in the abdomen<sup>1,4</sup>
- ▶ pain in the side that does not go away<sup>4</sup>
- ▶ loss of appetite
- ▶ unexplained weight loss
- ▶ anaemia.

There are a number of conditions that may cause these symptoms, not just kidney cancer. If any of these symptoms are experienced, it is important that they are discussed with a doctor.

## What are the risk factors for kidney cancer?

A risk factor is any factor that is associated with an increased chance of developing a particular health condition such as kidney cancer. There are different types of risk factors, some of which can be modified and some which cannot.

It should be noted that having one or more risk factors does not mean a person will develop kidney cancer. Many people have at least one risk factor but will never develop kidney cancer, while others with kidney cancer may have had no known risk factors. Even if a person with kidney cancer has a risk factor, it is usually hard to know how much that risk factor contributed to the development of their disease.

While the causes of kidney cancer are not fully understood, there are a number of factors associated with the risk of developing the disease. These factors include:

- ▶ tobacco smoking<sup>1,4,5</sup>
- ▶ obesity<sup>4,5</sup>
- ▶ high-blood pressure – this is called hypertension<sup>4,5</sup>

- ▶ long-term use of certain pain medications<sup>1,4,5</sup>
- ▶ having certain genetic conditions such as von Hippel-Lindau (VHL) syndrome or hereditary papillary renal cell carcinoma.<sup>1,4</sup>

## How is kidney cancer diagnosed?

A number of tests will be performed to investigate symptoms of kidney cancer and confirm a diagnosis. Some of the more common tests include:<sup>4</sup>

- ▶ a physical examination
- ▶ examination of a blood sample
- ▶ examination of a urine sample
- ▶ imaging of the kidney and nearby organs, which may include ultrasound, X-ray, computed tomography (CT) scans or magnetic resonance imaging (MRI)
- ▶ taking a sample of tissue (biopsy) from the affected kidney wall for examination under a microscope.

## Treatment options

Treatment and care of people with cancer is usually provided by a team of health professionals – called a multidisciplinary team. Treatment for kidney cancer depends on the stage of the disease, the severity of symptoms and the person's general health. Treatment options can include surgery to remove part or all of the affected kidney, and radiotherapy, chemotherapy, or targeted therapies to destroy cancer cells.

Research is ongoing to find new ways to diagnose and treat different types of cancer. Some people may be offered the option of participation in a clinical trial to test new ways of treating kidney cancer.

### Finding support

People often feel overwhelmed, scared, anxious and upset after a diagnosis of cancer. These are all normal feelings.

Having practical and emotional support during and after diagnosis and treatment for cancer is very important. Support may be available from family and friends, health professionals or special support services.

In addition, State and Territory Cancer Councils provide general information about cancer as well as information on local resources and relevant support groups.

The Cancer Council Helpline can be accessed from anywhere in Australia by calling **13 11 20** for the cost of a local call.

More information about finding support can be found on the Cancer Australia website **[www.canceraustralia.gov.au](http://www.canceraustralia.gov.au)**

### References

1. National Cancer Institute. Renal cell cancer treatment (PDQ) – patient version. Available from <http://www.cancer.gov/cancertopics/pdq/treatment/renalcell/Patient>. [Accessed July 2012].
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