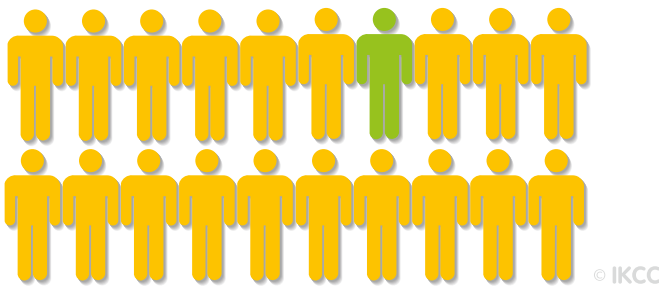


# What is Kidney Cancer?



Kidney cancer is diagnosed in over 430,000 people worldwide every year. Kidney cancer is the 14<sup>th</sup> most common cancer in the world. Fewer than 1 in 20 people with cancer have kidney cancer, meaning that it is a less common cancer.



## What is cancer?

Our bodies are made up of hundreds of trillions of cells. Each tissue and organ are made of cells, which are all very different depending on where they are in the body. Our bodies are always making new cells to enable us to grow, to replace worn-out cells, or to heal damaged cells after injury. This process is controlled by the genes within the cells.

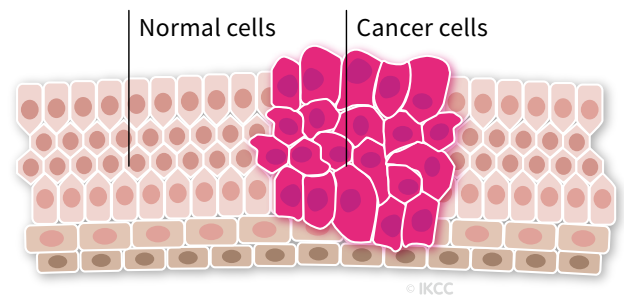
Cancer starts in normal cells. It can start in just one cell, or a small group of cells. Cells produce signals from genes that control how the cells divide. If these signals are faulty or missing the cells might grow too much.

Cancer cells develop because of changes to genes, called mutations. This causes the cancer cells to divide and grow. These changes may be caused by several factors, including diet, lifestyle, genetic factors (which are inherited from parents) and the environment.

The mutations cause the cancer to grow uncontrollably. The cancer cell grows and multiplies to form a growth or mass, called a tumour. The primary tumour is where the cancer starts.

Tumours can be either cancer (malignant) or not cancer (benign). Malignant tumours are different to normal cells. Cancer cells can spread away from the original tumour (metastasise) into nearby tissue and other areas of the body, such as the lungs, brain, and bone. Cancer cells spread through the blood or in a fluid called lymph, which is in the lymphatic system.

When cancer spreads, it takes its own characteristics with it. For example, if kidney cancer spreads from the kidney to the liver, the cells in the tumour in the liver will look like kidney cancer cells and will be treated as kidney cancer cells.

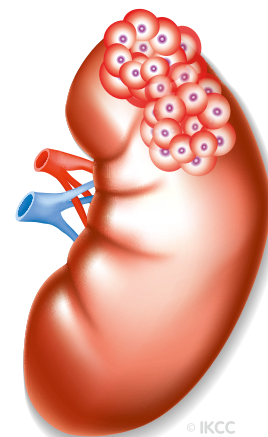


Benign tumours are not cancers. The main difference between benign and malignant tumours is that benign tumours do not spread to other parts of the body. However, benign tumours may grow and get bigger.

## What is kidney cancer?

Kidney tissue is made up of very small tubes (called 'tubules') that filter and clean the blood. Kidney cancer starts in the cells in these tubes. These cells are called renal cells. Around 88% of tumours found in the kidneys are cancer (malignant). The remaining 12% of tumours found in the kidneys are not cancer (benign).

Renal cell carcinoma (RCC) is the most common form of kidney cancer and accounts for more than 80% of all cases. Not all kidney cancers are the same. There are different types of RCC. The most common type is clear cell RCC. It is important to know which type of kidney cancer you have because they are treated differently.



# What is Kidney Cancer?

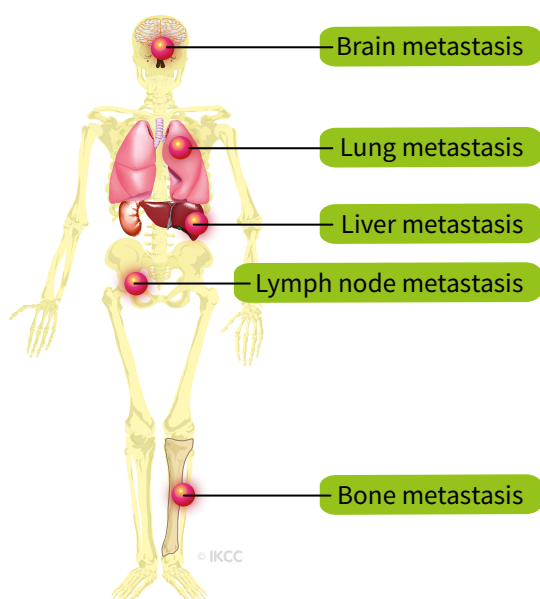


The number of people being diagnosed with kidney cancer is increasing. This may be because of lifestyle factors and improvements in scans and better diagnosis of kidney cancer.

The symptoms of RCC are often like those caused by urinary tract infections or kidney stones. The most common symptom is blood in the urine (haematuria), which may appear suddenly and may come and go. Other common symptoms are a lump or pain in the tummy or on one side of your back. Some people also have a raised temperature, night sweats, extreme tiredness, and unexplained weight loss. Some people do not show any of these symptoms, while others may have many.

Often kidney cancer in its early stages has no signs or symptoms. In these cases, kidney cancer is found by accident on a scan carried out for other reasons or to investigate symptoms, such as high blood pressure, weight loss, high temperature, or abnormal blood tests.

About a third of people don't find out they have kidney cancer until their cancer has already spread (metastatic disease) and they have symptoms such as shortness of breath, coughing up blood, bone pain, or bone fracture. RCC most commonly spreads to the lymph nodes, lungs, bone and brain.



## Good to know!

### Cancer

A term for diseases in which an uncontrolled growth of abnormal cells happens which can invade and destroy nearby healthy tissues. Cancer cells can also spread to other parts of the body through the blood and lymph systems

### Kidney

One of a pair of organs located below your ribs, one on either side of your spine. Kidneys remove waste from the blood (as urine), produce erythropoietin (a substance that stimulates red blood cell production), and help to regulate blood pressure.

### Renal Cell Carcinoma

The most common kind of kidney cancer. It grows in the small tubes of the kidneys. Most cases are clear cell renal cell carcinoma.

### Metastasis

The spread of cancer from its original (primary) site to other parts of the body. A tumour formed by cells that have spread is called a "metastatic tumour" or a "metastasis." The metastatic tumour contains cells that are like those in the original (primary) tumour. The plural form of metastasis is metastases.

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