

# About Kidney Cancer

## A Quick Guide

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This is a brief summary of the information on 'About kidney cancer' from our website. You will find more detailed information on there. In this information there are sections on

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You can view this information in a larger print on our website.

### The kidneys

The kidneys are two bean shaped organs about the same size as a fist. They are near the middle of the back, one on either side of the spine. The kidneys are part of the body system called the urinary system. They filter the blood. As the blood passes through them, waste products and unneeded water are collected and turned into urine. This happens in tiny tubes called nephrons. Each kidney has about 1 million nephrons.

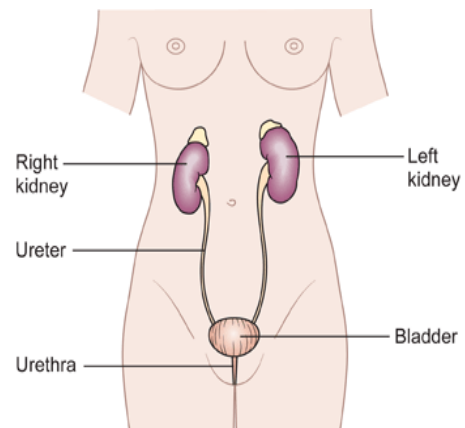


Diagram showing the female urinary system  
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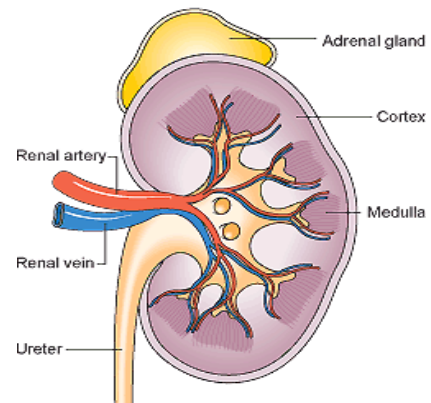


Diagram showing the parts of a kidney  
© CancerHelp UK

The urine drains into the bladder down a tube called the ureter. There are 2 ureters – one from each kidney. Another tube called the urethra carries the urine from the bladder out of the body.

## Hormones

The kidneys also produce three important hormones.

- Erythropoietin (EPO) tells the bone marrow to make red blood cells
- Renin regulates blood pressure
- Calcitriol (a form of Vitamin D) helps the intestine to absorb calcium from the diet

## The adrenal glands

Above each kidney is a small gland called the adrenal gland. The adrenal glands make several hormones that are vital for life. If you have a kidney removed, you may have the adrenal gland above it removed too. You can manage perfectly well with one adrenal gland, but if both are removed you will need to take hormone tablets every day.

## Risks and causes of kidney cancer

Around 3 out of 4 people (75%) diagnosed with kidney cancer are over 60 years old. It is rare in people under 50. It affects more men than women. This could be because in the past more men smoked cigarettes.

There are some kidney cancer risk factors we know about. These are

- Being very overweight (obese)
- Smoking – if you smoke your risk could be double that of a non smoker
- Having kidney disease that needs dialysis
- Faulty genes – some people inherit a tendency to develop kidney cancer (hereditary or familial kidney cancer)
- Having a relative with kidney cancer
- High blood pressure
- Hepatitis C infection
- Having had thyroid cancer
- Radiotherapy treatment for testicular cancer or cancer of the neck of the womb (cervix)

Other risk factors that have been investigated and may increase risk are removal of the womb (hysterectomy) and the heavy use of mild painkillers such as ibuprofen.

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## Screening for kidney cancer

Screening means testing people for the early stages of a disease before they have any symptoms. But before screening for any type of cancer can be carried out, doctors must have an accurate test to use. The test must be reliable in picking up cancers that are there. And it must not give false positive results in people who do not have cancer. At the moment there is no reliable screening test for kidney cancer for the general population.

If one of the inherited syndromes that increase the risk of kidney cancer runs in your family, you may be offered screening. This means having an ultrasound or MRI scan of your kidneys every year. There is also a genetic blood test for Von Hippel Lindau syndrome. Further genetic tests may become available in the future.

## Symptoms of kidney cancer

When kidney cancer first starts to develop, there are often no obvious symptoms. But increasingly, kidney cancers are being picked up on ultrasound scans that are done for other medical reasons. So they are being found at an earlier stage. Once the cancer begins to grow, the symptoms can become more obvious.

## Blood in the urine

This is the most common symptom of kidney cancer. Doctors call this haematuria. About half of the people diagnosed with kidney cancer will have this symptom when they first go to the doctor.

Sometimes the blood cannot be seen by the naked eye but can be picked up by a simple urine test. If you ever see blood in your urine, you should go to the doctor. Most people who have blood in the urine do not have kidney cancer. In most cases it is caused by an infection, enlargement of the prostate, or kidney stones.

## A lump

Most kidney cancers are too small to feel, but see your doctor straight away if you feel a lump or swelling in the area of your kidneys.

### **Other symptoms**

Some people have other vague symptoms including tiredness, loss of appetite, weight loss, a high temperature with very heavy sweating, a pain in the side that won't go away, or a general feeling of poor health. Remember that all these symptoms can be caused by many other conditions that are not cancer.

### **Types of kidney cancer**

#### **Renal cell cancer**

Renal cell cancer is the most common type of kidney cancer in adults. More than 8 in every 10 (80%) kidney cancers diagnosed in the UK are this type. Renal cell cancer is also called renal adenocarcinoma or hypernephroma. In renal cell cancer the cancerous cells are found in the lining of the tubules (the smallest tubes inside the nephrons) that help filter the blood and make urine.

There are several different types of renal cell cancer. The most common is called clear cell. All types of renal cell cancer are treated in the same way.

#### **Other types of kidney cancer**

Another type of kidney cancer is called transitional cell cancer (TCC) of the renal pelvis. It is less common. About 7 or 8 out of every 100 (7 to 8 %) kidney cancers diagnosed in the UK are TCCs. The treatment for this type of kidney cancer is similar to the treatment for bladder cancer.

A type of kidney cancer called Wilms' tumour can affect children. This is different from kidney cancer in adults.

### **Guidelines for seeing a kidney cancer specialist**

The symptoms of kidney cancer are similar to some other medical conditions. So it can be very difficult for GPs to decide who may have a kidney cancer and who may have something less serious. The National Institute for Health and Care Excellence (NICE) has produced guidelines for GPs to help them decide which patients need to be seen urgently by a specialist.

#### **Guidelines for urgent referral**

According to the NICE guidelines, you should ideally get an appointment within 2 weeks for an urgent referral. The symptoms that NICE say need urgent referral are:

- Blood in your urine, with no symptoms of urine infection (like pain, frequency or urgency of passing urine)
- Blood in the urine with other symptoms, after urine infection has been ruled out
- Urine infection that won't go away or keeps coming back, and with blood in the urine, in anyone over 40
- Very small amounts of blood in the urine for no apparent reason, and you are over 50
- A lump in your abdomen (tummy) -either on a scan or felt by your doctor- that your GP thinks could be related to your urinary system (your bladder and kidneys).

#### **If you are still worried**

If you are concerned that your GP is not taking your symptoms as seriously as you think they should, you could take this information along to an appointment.

## What to ask your doctor about kidney cancer

Some questions you may want to ask

- How will I know if I have kidney cancer?
- Am I more likely to get kidney cancer than anyone else?
- I used to smoke, so am I more likely to get kidney cancer?
- I get a lot of urine infections, so do I have more chance of getting kidney cancer?
- Can I be screened for kidney cancer?
- Am I more at risk of getting kidney cancer because someone else in my family has had it?

**For more information**, visit our website <http://www.cruk.org/cancerhelp>

You will find a wide range of detailed, up to date information for people affected by cancer, including a clinical trials database that you can search for trials in the UK. Our information is based on the best current scientific evidence and reviewed regularly by leading clinicians and experts in health and social care.

For answers to your questions about cancer call our Cancer Information Nurses on 0808 800 4040 9am till 5pm Monday to Friday.

Adapted from Cancer Research UK's Patient Information Website CancerHelp UK in January 2014. CancerHelp UK is not designed to provide medical advice or professional services and is intended to be for educational use only. The information provided through CancerHelp UK and our nurse team is not a substitute for professional care and should not be used for diagnosing or treating a health problem or disease. If you have, or suspect you may have, a health problem you should consult your doctor. Copyright Cancer Research UK 2014. Cancer Research UK is a registered charity in England and Wales (1089464), Scotland (SC041666) and in the Isle of Man (1103)