



KIDNEY CANCER

What is kidney cancer?

Kidney cancer is the abnormal growth of cells in kidney tissue. In time, these cells form a mass called a tumor. Cancer begins when something triggers a change in the cells, and they divide out of control. A cancerous, or malignant, tumor can metastasize, or spread, to other tissues and vital organs.

What are the symptoms of kidney cancer?

Kidney cancer may not produce any noticeable symptoms in its early stages. However, as the tumor grows, symptoms may begin to appear. For that reason, kidney cancer is often not diagnosed until it has begun to spread.

Symptoms of kidney cancer can include:

Blood in the urine (a condition called hematuria)

A lump or mass in the kidney area

Tiredness

Loss of appetite and/or weight

Low-grade fever

Pain in the side

Bone pain

A general sense of not feeling well

High blood pressure

Anemia (a condition that results from not having enough red blood cells)

What causes kidney cancer?

The exact cause of kidney cancer is not known, but several risk factors have been identified which include:

Smoking — Smokers are at greater risk for kidney cancer. In addition, the longer a person smokes, the higher the risk.

Obesity

Radiation — Women who have been treated with radiation for cancer of the reproductive organs may have a slightly increased risk for developing kidney cancer.

Gene changes (mutations) — Genes contain instructions for a cell's function. Changes in certain genes can increase the risk of developing kidney cancer.

Family history — People who have family members with kidney cancer may have an increased risk for developing the cancer themselves.

Long-term dialysis treatment — Dialysis is the process of cleaning the blood by passing it through a special machine. Dialysis is used when a person's kidneys are not functioning properly.

Von Hippel-Lindau (VHL) disease — People with this inherited disorder are at greater risk for developing kidney cancer. This disorder causes non-cancerous tumors in the blood vessels, typically in the eyes and brain.



How is kidney cancer diagnosed ?

If you have symptoms, your doctor will perform a complete medical history and physical examination. The doctor also may order certain tests that can help in diagnosing and assessing cancer. These tests can include:

Urine tests — A sample of urine is tested to see if it contains blood. Even very small traces of blood, invisible to the naked eye, can be detected in tests of urine samples.

Blood tests — These tests are done to count the number of each of the different kinds of blood cells. A blood test can show if there are too few red blood cells (anemia).

Ultrasound — This test uses high-frequency sound waves that are transmitted through body tissues to create images that are displayed on a monitor. This test is helpful in detecting tumors, which have a different density than healthy tissues.

Computed tomography (CT or CAT) scan — This is a special X-ray that uses a computer to create a series of images, or slices, of the inside of the body.

The doctor uses information from various tests to determine the stage of the cancer.

How is kidney cancer treated ?

Treatment depends on the type of cancer, the stage and grade of the tumor, and the patient's age and overall health.

Surgery is the most common treatment for kidney cancer. Several surgical options may be considered, including:

Partial nephrectomy — The surgeon removes just the part of the kidney that contains the tumor.

Radical nephrectomy — The surgeon removes the whole kidney, along with the adrenal gland and some of the tissue around the kidney. Some lymph nodes in the area also may be removed.

When one kidney is removed, the remaining kidney usually is able to perform the work of both kidneys.

Surgery is the treatment of choice for most stages of kidney cancer.

Targeted therapy (from of chemotherapy) may be used for stage IV cancer, when the cancer has spread beyond the kidney.

There is no role for radiation therapy in kidney cancer.

What is the outlook for people with kidney cancer ?

The chance of recovery depends on the type and stage of the cancer (whether it is just in the kidney or has spread to other places in the body), as well as the patient's general state of health.

Like most cancers, the chance of treatment success is highest if kidney cancer is found in its early stages. In general, if the cancer is detected early, before it breaks through the outer covering of the kidney, the kidney cancer is often curable.

Can kidney cancer be prevented ?

Because the exact cause of kidney cancer is not known, there is no known prevention. However, you may be able to reduce your risk by quitting smoking, tobacco and losing weight.