

Kidney Cancer

Cancer of the kidneys, also known as **renal cancer**, can be cured if detected early. However, symptoms may not occur until the tumor has become large or **metastasized** (spread to other organs), when it is difficult to treat. The majority of kidney cancers are **renal cell carcinomas**, also known as **renal adenocarcinomas** or **clear cell carcinomas**. Most kidney cancers affect adults between 50 and 70 years of age. The most common type of kidney cancer in children is called **Wilms tumor**. The July 7, 2004, issue of *JAMA* includes an article about renal cancer.

RISK FACTORS FOR KIDNEY CANCER

- Kidney cancers most commonly occur in adults older than 50 years.
- Men are twice as likely to have renal cancers as women are.
- Cigarette smoking increases the risk of developing renal cell cancer.
- Environmental and occupational exposures to asbestos, cadmium, and organic solvents increase the risk of developing kidney cancer.
- Obesity and eating a high-fat diet have been linked with as many as 20% of kidney cancers.
- **von Hippel-Lindau** disease is a genetic condition that has a high incidence of kidney cancer.

SIGNS AND SYMPTOMS

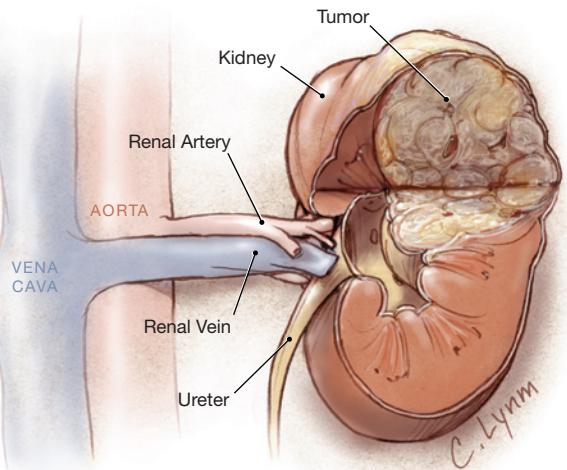
- **Hematuria** (blood in the urine)
- Abdominal or low back pain unrelated to injury
- Unintentional weight loss
- Fatigue
- **Anemia** (low red blood cell count)
- Fever
- High blood pressure
- Leg or ankle swelling

TESTING FOR KIDNEY CANCER

Diagnosis of renal cancer may involve several kinds of tests. In addition to a detailed medical history, physical examination, and laboratory blood testing, tests may include a computed tomography (CT) scan, ultrasound, magnetic resonance imaging (MRI), or **intravenous pyelography** (a dye and x-ray test of the kidneys). Chest x-ray and bone scan may be used to detect metastatic disease. **Arteriography**, a technique that uses dye in the blood vessels feeding the kidney, may define the extent of the tumor or help plan surgical treatment.

TREATMENT

Surgical removal of the kidney (**nephrectomy**) and surrounding tissue may cure kidney cancer in persons whose tumor is confined to the kidney. **Radiation therapy** (high-energy x-ray treatments) may be offered to patients to treat pain and advanced or metastatic kidney cancers or to help shrink a tumor that is causing obstruction. **Immunotherapy** helps to boost the body's own immune system to fight the cancer. **Interferon** and **interleukin 2** boost the immune system and may be used to treat patients with advanced kidney cancer. Patients who volunteer for **clinical trials** (medical research studies) may be offered immunotherapy in combination with experimental treatments.



FOR MORE INFORMATION

- American Cancer Society
800/227-2345
www.cancer.org
- National Cancer Institute
800/4-CANCER
www.cancer.gov

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at www.jama.com. Many are available in English and Spanish. A Patient Page on preventing cancer was published in the May 26, 2004, issue; and one on cancer clinical trials was published in the June 9, 2004, issue.

Sources: American Cancer Society, National Cancer Institute

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