

Genetic Testing for Kidney Cancer

What You Should Know



What is Kidney Cancer?

A kidney mass, or tumor, is a growth in the kidney that is not normal. Some kidney masses are benign (not cancerous) and some are malignant (cancerous).

There are many kinds of kidney tumors. The most common ones are:

- **Renal Cell Carcinoma (RCC):** These are the most common cancerous kidney tumors. They arise from the small tubes in the kidney.
- **Benign Kidney Tumors:** These can grow quite large. They are non-cancerous and rarely spread to other organs. Benign tumors may include oncocytomas and angiomyolipomas.
- **Wilms Tumor:** Wilms tumors almost always happen in children and are rarely found in adults.

What Causes Kidney Cancer?

No one thing causes kidney cancer. But there are a number of things that can raise your risk for kidney tumors such as:

- Smoking
- Obesity or a poor diet
- Being on kidney dialysis
- Being around chlorinated chemicals at work
- Heredity or genetics (about 5-8% of kidney cancer cases are passed down from family)

More men than women are found to have kidney cancer. Kidney cancer is more common in African-American, Native American, and Alaskan Native people. You can get kidney cancer at any age but it is more common in those older than 75. The earlier that kidney cancer is found, the better your chances of living.

What is Hereditary Kidney Cancer?

Kidney cancer that impacts many generations of a family is called hereditary kidney cancer. It is often linked to a hereditary syndrome. This is a set of signs and symptoms or conditions that happen together. It is caused by certain changes in the genes that can be passed down from a parent to a child.

People with these hereditary syndromes have a greater risk of getting kidney cancer:

- Von Hippel-Lindau disease
- Hereditary leiomyomatosis and renal cell cancer
- Birt-Hogg-Dubé syndrome
- Hereditary papillary renal cancer

Hereditary kidney cancer is often found at an earlier age, and the care for hereditary kidney cancer may differ. People with hereditary kidney cancer may have a higher risk of other health issues or types of cancer.

What is Genetic Testing?

Your family gives you your genes, which is the DNA that you get at birth and pass on to your children. They make clear why a person has dark skin, blue eyes or red hair. Your genes may impact health issues, such as having a greater chance for cancers, heart issues, high blood sugar or obesity. Genetic testing is done to learn about a gene(s) and its role in disease.

What is Genetic Counseling and Who Should Get It?

Genetic counseling gives you information about how genetics might impact you or your family. The genetic counselor will collect the health history for you and your family. They can use this to find out how likely it is that



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you or your family member has a genetic health issue. The genetic counselor can help you grasp your family medical history, choices for genetic testing, and how your genetics may impact you and your health choices.

If you choose to get genetic testing, it may be done using a sample of blood, saliva, or skin. Genetic test results can show information about other family members. Talking with a genetic counselor can help you cope with your results and guide you on sharing results with family members.

Who Should Get Genetic Testing?

Who should get tested depends on many things. People who have experiences from the list below may be urged to seek genetic testing:

- Many family members have had kidney cancer
- Cancer was found at a young age
- Many tumors are found in kidney or tumors in both kidneys
- Your type of kidney cancer is known to be passed down from family

What if you have Hereditary Kidney Cancer Syndrome?

If you have hereditary kidney cancer syndrome, your family members should be watched closely for signs of disease in the kidneys and other organs. Most kidney tumors can be removed by surgery. Other treatments may be offered.

About the Urology Care Foundation

The Urology Care Foundation is the world's leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts. To learn more, visit the Urology Care Foundation's website, **UrologyHealth.org/UrologicConditions** or go to **UrologyHealth.org/FindAUrologist** to find a doctor near you.

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This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologist or health care provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications. For more information, visit **UrologyHealth.org/Download** or call 800-828-7866.

