## What is Kidney Cancer and How is it Treated?

## By [name withheld]

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Kidney cancer -- also called renal cell carcinoma -- is a disease in which kidney cells become cancerous and form a tumor. Kidney cancer begins in the lining of tiny tubes (tubules) in the kidney. It is almost always detected early, often as an incidental result diagnosing another condition. Early detection is good, because when the tumors are small, there is a range of treatment options that are highly effective and don't affect lifestyle or overall health.

The kidneys are two bean-shaped organs, each about the size of a fist. They lie near the belt line on each side of your spine. Their main job is to clean your blood, removing waste products and making urine.

Although the exact causes of kidney cancer are not known, it is most common in people over 40. Men seem to be diagnosed almost twice as much as women. Some factors may increase the risk for kidney cancer, including: smoking, obesity, chronic use of certain pain medications, advanced kidney disease, certain genetic or family history factors, and exposure to environmental toxins. However, these and other possible factors don't mean kidney cancer is inevitable; and many people who are diagnosed with kidney cancer have none of these risk factors.

In many cases, people may have no early symptoms of kidney cancer. As the tumor grows larger, symptoms may appear, such as blood in the urine, a lump in your side of abdomen, a pain in the side that doesn't go away, and others. Sometimes, a person having a diagnostic imaging scan for other reasons is found to have a suspicious area in a kidney. However, to confirm a diagnosis of kidney cancer, further exams, health history and testing will be necessary. Checking for any indications of spread also helps to determine the cancer stage (how far it has progressed).

There are several standard types of treatment for kidney cancer. The most common is surgery, which can be done as an open or laparascopic procedure to remove all or part of the kidney. (Remember that a person can function normally with only one kidney, or a whole kidney and a partial kidney on the other side.) There are other minimally invasive treatments, including cryotherapy (freezing), radiofrequency ablation (RFA) using high-energy radio waves to generate extreme heat, and a procedure called arterial embolization that blocks blood flow to the tumor so it can't survive. New types of treatment such as vaccines or targeted drug therapies are in clinical trials, and are promising.

At our center, we work with each person suspected of kidney cancer, or diagnosed with it, to develop a treatment plan with the best chance of wiping out the cancer, and the least chance of creating a lifestyle burden. If caught early, kidney cancer has one of the highest cure rates of all cancers, and we are proud to be part of the solution.