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# Overview of Advanced Renal Cell Carcinoma (RCC)

## Renal Cell Carcinoma

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If you or someone you love has been diagnosed with RCC, you are not alone. Here are some facts reflecting the numbers of people who are affected by this serious disease:

- In the United States, kidney and renal pelvis cancer is the seventh most common cancer in men and the ninth most common cancer in women.<sup>1</sup>
- In 2008, an estimated 33,130 new cases of kidney and renal pelvis cancer will be diagnosed in men and 21,260 in women in the United States.<sup>1</sup>
- Kidney and renal pelvis cancer account for 3% to 4% of all new cancers expected to be diagnosed in the United States in 2008.<sup>1</sup>
- Over the past 30 years, there has been a 3% increase every year in the number of cases of RCC diagnosed in the United States.<sup>2</sup> The cause of these increases is uncertain.<sup>2</sup>
- Kidney and renal pelvis cancer is expected to cause about 13,000 deaths in the United States in 2008.<sup>1</sup>

## Signs & Symptoms of RCC

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About half of all cases of RCC are now found by chance when a person gets an imaging test (a test that takes pictures of the inside of the body) for a different health issue.<sup>3</sup> In these cases, the person might not have any noticeable signs or symptoms of RCC.

Some common signs and symptoms of the disease include<sup>3</sup>:

- Fatigue
- Weight loss
- Anemia (not enough red blood cells)
- Blood in the urine
- Pain in the lower side of the torso

## Risk Factors for RCC

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Men have a higher risk than women for getting RCC. Most people diagnosed with RCC are in their 60s or 70s.<sup>3</sup>

Other risk factors are<sup>3</sup>:

- Smoking
- Obesity
- High blood pressure
- Certain types of kidney disease

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## Stages of RCC

When RCC is detected at an early stage (before it has spread beyond the place where it first started), it can be treated successfully with surgery to remove the tumor and part or all of the kidney.<sup>4</sup>

## Advanced Renal Cell Carcinoma

Despite surgery, in about 33% of patients, cancer will return.<sup>2,3</sup> And of the people who are diagnosed with RCC, about 25% to 30% already have advanced disease when they are diagnosed, which means the cancer has spread beyond the place where it first started.<sup>2,3</sup>

For these reasons, many people diagnosed with RCC may need other types of treatment, beyond the surgery to remove the tumor.

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## Treatment Options for RCC

The main treatment for early-stage RCC is surgery to remove the cancer from the body.<sup>3</sup>

Types of surgery for RCC include:

- **Nephrectomy** (pronounced: *nuh-FREK-tuh-mee*) – kidney removal. This type of surgery is done for both early-stage and advanced RCC.<sup>3</sup>
- **Partial nephrectomy** – removing part of the kidney. This type of surgery is done if the tumor is less than 4 cm (4 centimeters = about 1.5 inches) in diameter. It might also be done if a person has only one kidney, if there are tumors in both kidneys, or if the kidneys are not working properly.<sup>3</sup>
- **Laparoscopic nephrectomy** – removing part or all of the kidney using special equipment so that the surgeon does not have to make a large incision to get the kidney out.<sup>3</sup>
- **Ablation** – a technique to kill tumors using radio wave frequencies (radiofrequency heat ablation) or extreme cold (cryoablation). This technique is done on tumors that are less than 3 cm (3 centimeters = 1.2 inches) in diameter and for people who might not be appropriate for major invasive surgery.<sup>3</sup>

**Chemotherapy and radiation** treatments, which are used to treat other types of cancer, are **not** very effective for treating RCC.<sup>4</sup>

**Biologic therapies** are treatments that help the immune system fight the cancer.

In addition, in recent years several treatments for advanced RCC have been developed called **targeted therapies**. These are treatments that target specific molecular pathways and processes that affect cell growth.

Researchers are also investigating vaccines, stem-cell therapies, and other therapies for the treatment of RCC.<sup>3</sup>

If you or someone you love has been diagnosed with RCC, talk to your doctor about the types of treatment that might be right for you.

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## References:

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