What is kidney cancer?

Cancer can start any place in the body. Kidney cancer starts in the kidney and is also called *renal cell carcinoma* or RCC for short. It starts when cells in the kidney grow out of control and crowd out normal cells. This makes it hard for the body to work the way it should.

Cancer cells can spread to other parts of the body. Cancer cells in the kidney can sometimes travel to the bone and grow there. When cancer cells do this, it’s called metastasis. The cancer cells in the new place will look just like the ones from the kidney.

Cancer is always named for the place where it starts. So if kidney cancer spreads to the bone (or any other place), it’s still called kidney cancer. It’s not called bone cancer unless it starts from cells in the bone.
The kidneys

Ask your doctor to use this picture to show you where the cancer is.

The kidneys

You have 2 kidneys. They are bean-shaped and about the size of a fist. They clean waste out of your blood and make it into urine. They also help control your blood pressure and help make sure you have enough red cells in your blood.

Different kinds of kidney cancer

There are many types of kidney cancer. Some are very rare. The most common kind is called renal cell cancer (RCC). There are also subtypes of RCC that help your doctor know what treatment you need. Your doctor can tell you more about the type you have.

Questions to ask the doctor

- Why do you think I have cancer?
- Is there a chance I don’t have cancer?
• Would you please write down the kind of cancer you think I might have?
• What will happen next?

How does the doctor know I have kidney cancer?

Kidney cancers don’t usually cause any signs or symptoms, but sometimes they might. Symptoms of kidney cancer may be:

• Blood in the urine
• Low back pain on one side (not from a hit or fall)
• A lump on the side or lower back
• Feeling tired
• Losing weight, if you’re not trying to lose weight
• Fever that’s not from a cold and that doesn’t go away

Talk to a doctor if you notice any of these problems. Your doctor will ask you questions about your health and do an exam.

If signs are pointing to kidney cancer, more tests will be done. Here are some of the tests you may need:

Urinalysis: Urine is checked in the lab to see if there are blood or cancer cells in it

Blood chemistry tests: These tests show how well the kidneys are working.

Complete blood count (CBC): This test measures the number of blood cells in the blood, like white blood cells, red blood cells, and platelets. People with kidney cancer often have low red blood cell counts. (This is called anemia.)

Chest x-ray: X-rays may be done to see if the cancer has spread to your lungs.

CT scan: This is also called a “CAT scan.” It uses a special kind of x-ray that takes detailed pictures of your insides to see if the cancer has spread.

MRI scan: This test uses radio waves and strong magnets instead of x-rays to make pictures that look at the soft tissue parts of the body. This test may be used to see if the cancer has spread.

Ultrasound: Uses sound waves to make pictures of the inside of the body. This test
can help show whether a kidney mass is solid or filled with fluid. (Kidney cancers are more likely to be solid.) If a kidney biopsy is needed, ultrasound can be used to guide a needle into the lump to take out some cells for testing.

**Kidney biopsy:** In a biopsy, the doctor takes out a small piece of tissue to check it for cancer cells. For most cancers, a biopsy is the only way to tell for sure if you have cancer. But a biopsy is not always needed to tell if you have kidney cancer. X-rays or scans are sometimes enough.

There are many types of biopsies. Ask your doctor what kind you may need. Each type has risks and benefits. The choice of which type to use depends on your own case.

**Grading kidney cancer**

The cancer cells in the biopsy sample will be graded. This helps doctors predict how fast the cancer is likely to grow and spread. Cancer cells are graded based on how much they look like normal cells. Kidney cancers are usually graded 1 through 4. Grade 1 kidney cancers have cells that look a lot like normal kidney cells. Cancer cells that look very different from normal cells are given a higher grade (4) and tend to grow faster. Ask the doctor to explain the grade of your cancer. The grade helps the doctor decide which treatment is best for you.

**Questions to ask the doctor**

- What tests will I need to have?
- Who will do these tests?
- Where will they be done?
- Who can explain them to me?
- How and when will I get the results?
- Who will explain the results to me?
- What do I need to do next?

**How serious is my cancer?**

If you have kidney cancer, the doctor will want to find out how far it has spread. This is called staging. You may have heard other people say that their cancer was “stage 1” or “stage 2.” Your doctor will want to find out the stage of your cancer to help decide what type of treatment is best for you.
The stage describes the growth or spread of the cancer through the kidney. It also tells if the cancer has spread to nearby organs or to places farther away.

Your cancer can be stage 1, 2, 3, or 4. The lower the number, the less the cancer has spread. A higher number, like stage 4, means a more serious cancer that has spread away from the kidney. Be sure to ask the doctor about the cancer stage and what it means.

Questions to ask the doctor

- Do you know the stage of my cancer?
- If not, how and when will you find out the stage of my cancer?
- Would you explain to me what my stage means?
- Based on the stage of my cancer, how long do you think I’ll live?
- What will happen next?

What kind of treatment will I need?

There are many ways to treat kidney cancer.

The treatment plan that’s best for you will depend on:

- The stage and grade of your cancer
- The chance that a type of treatment will cure the cancer or help in some way
- Your age
- Other health problems you have
- Your feelings about the treatment and the side effects that come with it

Surgery for kidney cancer

Surgery is used to treat most kidney cancers. There are many ways to do this surgery. Talk to your doctor about how the surgery will be done. Any type of surgery can have risks and side effects. Be sure to ask the doctor what you can expect. If you have problems, let your doctors know. Doctors who treat people with kidney cancer should be able to help you with any problems that come up.

Tumor ablation for kidney cancer
Tumor ablation destroys the tumor without taking it out by surgery. It may be done if the person is too sick to have surgery. There are many ways to do this, such as heating the tumor with radio waves or microwaves, freezing the tumor, or killing the tumor by blocking the blood supply that feeds the kidney. Talk to your doctor about the planned treatment and what you can expect.

**Radiation treatments for kidney cancer**

Radiation uses high-energy rays (like x-rays) to kill cancer cells. It’s sometimes used to treat kidney cancer in patients who can’t have surgery, but other treatments might be tried first.

Radiation is aimed at the kidney from a machine outside the body. This is called external beam radiation.

**Side effects of radiation treatments**

If your doctor suggests radiation treatment, talk about what side effects might happen. Side effects depend on the type of radiation that’s used. The most common side effects of radiation are:

- Skin changes where the radiation is given (redness or skin peeling like a sunburn)
- Feeling very tired (fatigue)

Most side effects get better after treatment ends. Some might last longer. Talk to your cancer care team about what you can expect.

**Immunotherapy for kidney cancer**

Immunotherapy is treatment that boosts your own immune system or uses man-made parts of the immune system to help attack kidney cancer cells. Many types of immunotherapy are used to treat kidney cancer. These drugs are given into a vein.

**Side effects of immunotherapy**

Immunotherapy can cause many different side effects depending on which drug is used. These drugs can make you feel tired, sick to your stomach, or cause fever, chills, and rashes. Most of these problems go away after treatment ends.

There are ways to treat most of the side effects caused by immunotherapy. If you have
side effects, tell your cancer care team so they can help.

**Targeted therapy for kidney cancer**

Targeted therapy drugs work on the changes in cells that cause cancer. These drugs affect mainly cancer cells and not normal cells in the body. They may work even if other treatments don't. They come as pills that you take at home or may be given through a vein. These drugs have different side effects than chemo.

**Side effects of targeted therapy**

Side effects of targeted therapy depend on which drug is used. These drugs can make you feel sick to your stomach and cause low blood counts. They can also cause high blood pressure and skin changes of the hands and feet. These side effects usually go away after treatment ends.

There are ways to treat most of the side effects caused by targeted therapy. If you have side effects, talk to your cancer care team so they can help.

**Chemo for kidney cancer**

Chemo is the short word for chemotherapy\(^2\) – which are drugs to fight cancer. The drugs may be given into a vein or taken as pills. These drugs go into the blood and spread through the body. They kill cells that grow fast, such as cancer cells and even good cells, like those in the gut and hair. Chemo is given in cycles or rounds. Each round of treatment is followed by a break. Chemo doesn't work well for kidney cancer, but it may be tried if other treatments don't work.

**Side effects of chemo**

Chemo can make you feel tired, sick to your stomach, or cause your hair to fall out. But these problems go away after treatment ends.

There are ways to treat most chemo side effects. If you have side effects, be sure to tell your cancer care team so they can help.

**Clinical trials**

Clinical trials are research studies that test new drugs or other treatments in people. They usually compare standard treatments with others that may be better.
If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital takes part in clinical trials. See [Clinical Trials](#) to learn more.

Clinical trials are one way to get the newest cancer treatment. They are the best way for doctors to find better ways to treat cancer. If your doctor can find one that’s studying the kind of cancer you have, it’s up to you whether to take part. And if you do sign up for a clinical trial, you can always stop at any time.

**What about other treatments that I hear about?**

When you have cancer you might hear about other ways to treat the cancer or treat your symptoms. These may not always be standard medical treatments. These treatments may be vitamins, herbs, special diets, and other things. You may wonder about these treatments.

Some of these are known to help, but many have not been tested. Some have been shown not to help. A few have even been found to be harmful. Talk to your doctor about anything you’re thinking about using, whether it’s a vitamin, a diet, or anything else.

**Questions to ask the doctor**

- What treatment do you think is best for me?
- What’s the goal of this treatment? Do you think it could cure the cancer?
- Will treatment include surgery? If so, who will do the surgery?
- What will the surgery be like?
- Will I need other types of treatment, too?
- What’s the goal of these treatments?
- What side effects could I have from these treatments?
- What can I do about side effects that I might have?
- Is there a clinical trial that might be right for me?
- What about special vitamins or diets that friends tell me about? How will I know if they are safe?
- How soon do I need to start treatment?
- What should I do to be ready for treatment?
- Is there anything I can do to help the treatment work better?
- What’s the next step?
What will happen after treatment?

You’ll be glad when treatment is over. But it’s hard not to worry about cancer coming back. Even when cancer never comes back, people still worry about it. For years after treatment ends, you will see your cancer doctor. Be sure to go to all of these follow-up visits. You will have exams, blood tests, and maybe other tests⁴ to see if the cancer has come back.

At first, your visits may be every 3 to 6 months. Then, the longer you’re cancer-free, the less you will need to go. After 5 years, they may be done once a year.

Having cancer and dealing with treatment can be hard, but it can also be a time to look at your life in new ways. You might be thinking about how to improve your health. Call us at 1-800-227-2345 or talk to your cancer care team to find out what you can do to feel better.

You can’t change the fact that you have cancer. What you can change is how you live the rest of your life – making healthy choices and feeling as good as you can.

For connecting and sharing during a cancer journey

Anyone with cancer, their caregivers, families, and friends, can benefit from help and support. The American Cancer Society offers the Cancer Survivors Network (CSN)⁵, a safe place to connect with others who share similar interests and experiences. We also partner with CaringBridge⁶, a free online tool that helps people dealing with illnesses like cancer stay in touch with their friends, family members, and support network by creating their own personal page where they share their journey and health updates.

Hyperlinks

1. www.cancer.org/treatment/understanding-your-diagnosis/staging.html
2. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html
4. www.cancer.org/treatment/understanding-your-diagnosis/tests.html
5. csn.cancer.org/
6. www.caringbridge.org/
7. www.cancer.org
Words to know

**Biopsy** (BY-op-see): Taking out a small piece of tissue to see if there are cancer cells in it.

**Immunotherapy** (IM-yuh-no-**THER**-uh-pee): Treatment that uses the body’s immune system to fight cancer.

**Renal cell carcinoma** (REE-nul CAR-sin-**O**-muh.): A type of kidney cancer.

**Renal** (REE-nul): Having to do with the kidneys.

**Metastasis** (muh-TAS-tuh-sis): Cancer cells that have spread from where they started to other places in the body.

How can I learn more?

We have a lot more information for you. You can find it online at www.cancer.org (www.cancer.org). Or, you can call our toll-free number at 1-800-227-2345 to talk to one of our cancer information specialists.

Last Revised: February 3, 2020

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