

Get the Facts About Radiation

Radiation can be dangerous, but it can also save lives. So how can that be? If it's used the right way, radiation can help your doctor find and even cure disease. So when you're faced with a medical test that uses radiation, don't be afraid. Learn about the pros and cons. Make a list of questions to ask your doctor. If you need medical tests that use radiation, take steps to make sure that it's done as safely as possible.

Where does radiation come from? Radiation is all around us. It comes from the sun, and even from the ground. So our bodies can deal with the tiny amount of radiation we get each day. But too much radiation can hurt our body and cause health problems. Why do doctors use radiation? Radiation lets doctors see the inside parts of the human body. Dr. Steven Krosnick is a doctor who is an expert in medical radiation tests. He tells us that without radiation, doctors can't see inside our bodies with their eyes. Tests that use radiation help the doctor "see" inside our body.

Tests such as X-rays and CT scans send exact amounts of radiation through the body. This makes a picture of the inside of the body that the doctor can see. A dental x-ray is an example of this. Another way that radiation makes pictures is called nuclear medicine. It uses a medicine that has radiation in it. A person will get a shot or swallow the medicine, which goes to a certain part of the body. Then, a picture can be made of that part of the body. It can show the doctor if there are problems inside the body. It can also tell your doctor how well internal organs are working.

With medical radiation, doctors can find a sickness early, when it's easier to treat and cure. Because of this, more doctors are using more medical radiation. But with something that is really good, like medical radiation, doctors have to be careful. Sometimes, radiation can cause problems, too.

Dr. Krosnick, the doctor we told you about earlier, tells us that radiation can cause problems in some people. The biggest problem is the risk of getting cancer. Cancer takes a very long time to grow in the body.

DEFINITIONS:

Radiologists: Doctors who specialize in creating and analyzing images of the inside of the body. The pictures might be produced with X-rays, sound waves or other types of energy.

X-rays: A type of radiation used to diagnose and treat cancer and other diseases.

CT Scans: Short for "computed topography," this method uses special X-ray equipment to create a 2 or 3-D picture of organs and structures inside the body.



Ask About Your Imaging Test

If you're considering an imaging test, here are some questions to ask:

- What are we hoping to learn from the test?
- How is it going to help me?
- Will the test results change how my disease is managed?
- Do I need the test now, or can I wait?
- Is there another test I can use instead? If so, what are the benefits and risks of each?
- How can I be sure the test will be done in the safest way possible?
- Can you make sure to use the lowest radiation dose for what you need to know?
- For children: Is the facility using pediatric protocols for the test?



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Some cancers take years to develop. Because of this, it's hard for doctors to know exactly how much radiation it takes to cause a problem. But we do know that in some people radiation can cause cancer. Others will never get cancer.

Children are more likely to be hurt by radiation than adults. This is because their bodies are still growing. Doctors have to be very careful when giving radiation to children. It's rare to get cancer from radiation, but it can still happen. If your doctor suggests radiation for your child, find out if there are other tests that don't use radiation. If there isn't, ask your doctor to give your child the smallest dose of radiation possible.

Even though radiation can cause some kinds of cancer, radiation is also used to treat cancer. High doses of radiation are pointed directly at the tumor. The radiation kills the cancer cells and shrinks the tumor.

Tests like CT and x-ray use much lower doses than radiation used for cancer. Dr. George Sgouros, a doctor who has studied radiation, says that the important thing to know is that these tests all use a very small amount of radiation. Dr. Sgouros also says that in some cases, it's more harmful NOT to get the radiation. If you have a sickness that your doctor can't see without radiation, you won't get the care you need.

Doctors are studying radiation to make it safer. For example, people with different height, weight and muscles need different amounts of radiation. Doctors are learning the best amount of radiation to use, depending on a person's body type. Some doctors think radiation-based tests are used too much. That's why it's important to work with your doctor to make decisions.

If your doctor suggests you get a test that uses radiation, ask about the pros and the cons. If you really need the test, do some research. Visit the hospital or office where the tests will be done. Find one that closely checks the doses they give patients. Doses for the same illness can be different not only between different hospitals and offices, but at the same place based on the time of day and who's doing the test.

So if you're going to have an imaging test, learn all you can. Talk to your doctor so your questions are answered. Check out the box on the first page for some questions to ask your doctor.

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