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## If You Have Bone Cancer

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### What is bone cancer?

Cancer starts when cells begin to grow out of control. Cells in nearly any part of the body can become cancer, and can then spread to other parts of the body. To learn more about cancer and how it starts and spreads, see [What Is Cancer?](#)<sup>1</sup>

[Primary bone cancers](#)<sup>2</sup> start when the cells in the bone start to grow out of control.

### Primary bone cancer versus bone metastasis

Primary bone cancers start in bones. Most bone cancers in children and teens are primary bone cancers.

But in adults, most cancers in the bones started in a different organ and then spread to the bones. This is known as [bone metastasis](#)<sup>3</sup>, and it can happen with some common cancers like breast, prostate, or lung cancer. For example, breast cancer that spreads to the bones is not bone cancer, it's metastatic breast cancer. The cancer cells in the bone look like the cancer cells in the breast, and they're treated the same way.

## Types of bone cancer

There are many types of bone cancer. Your doctor can tell you more about the type you have.

[Osteosarcoma](#)<sup>4</sup> and [Ewing tumors](#)<sup>5</sup> (Ewing sarcomas) are the most common bone cancers in children and teens. For more on these cancers, click on their links.

The most common [types of bone cancer](#)<sup>6</sup> in adults include:

- Chondrosarcoma
- Undifferentiated pleomorphic sarcoma (UPS) of bone (formerly known as malignant fibrous histiocytoma [MFH] of bone)
- Fibrosarcoma of bone
- Malignant giant cell tumor of bone
- Chordoma

## Other cancers that can start in the bones

Some cancers start in the bone marrow (the center of the bones, where new blood cells are made). These cancers include [multiple myeloma](#)<sup>7</sup>, [leukemias](#)<sup>8</sup>, and some [non-Hodgkin lymphomas](#)<sup>9</sup>. These are not thought of as bone cancers. For more on these cancers, click on the links above.

## Questions to ask the doctor

- Why do you think I have bone cancer?
- Is there a chance I don't have bone cancer?
- Would you please write down the kind of bone cancer you think I might have?
- Where is the cancer? Which bone is it in?
- What will happen next?

## How does the doctor know I have bone cancer?

These cancers may not be found until they cause pain that makes a person go to the doctor. Other [signs or symptoms of bone cancer](#)<sup>10</sup> can include swelling, a lump, and/or the bone breaking.

The doctor will ask you questions about your health and do a physical exam. If signs are pointing to bone cancer, tests will be needed to find out for sure. Here are some of the [tests<sup>11</sup>](#) you may need:

**X-rays:** Most bone cancers can be seen on x-rays, so this is often the first test done if a person might have bone cancer.

**MRI scan:**



- Where the cancer is
- The stage of the cancer
- The chance that a type of treatment will cure the cancer or help in some way
- Your age and overall health
- Your feelings about the treatment and the side effects that come with it

## **Surgery**

[Surgery](#)<sup>14</sup> is an important part of treatment for most kinds of bone cancer. The goal of surgery is to take out all of the cancer. Often some of the normal tissue around it needs to be removed as well. In rare cases, the arm or leg with cancer needs to be amputated to get all the cancer. If the cancer has spread, those tumors need to be taken out, too.

Surgery can also be used to help rebuild or repair the changes caused by taking out the bone with cancer.

Ask your doctor what kind of surgery you need and how the surgery will be done.

### **Side effects of surgery**

Any type of surgery can have risks and side effects, such as bleeding, blood clots, and infections. And surgery on different parts of the body can have different side effects. Ask the doctor what you can expect. If you have problems, let your doctors know. Doctors who treat people with bone cancer should be able to help you with any problems that come up.

## **Radiation**

[Radiation](#)<sup>15</sup> uses high-energy rays (like x-rays) to kill cancer cells. Most bone cancer cells are not easily killed with radiation, so this type of treatment isn't used for all bone cancers. It may be used if surgery can't take out a tumor. It also may be used after surgery to kill cancer cells that may have been left behind.

Radiation is aimed at the cancer from a machine outside the body. This is called externalbeam radiation.

### **Side effects of radiation treatments**

If your doctor suggests radiation treatment, talk about what side effects might happen. Side effects depend on the part of your body that's treated. The most common side

effects of radiation are:

- Skin changes where the radiation is given
- Feeling very tired
- Low blood cell counts

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

## **Chemotherapy (chemo)**

[Chemotherapy](#)<sup>16</sup> is the use of drugs to fight cancer. The drugs are often given through a needle into a vein. These drugs go into the blood and spread through the body.

Chemo is given in cycles or rounds. Each round of treatment is followed by a rest break. Most of the time, 2 or more chemo drugs are given. Treatment often lasts for many months.

## **Side effects of chemo**

Chemo can make you feel very tired, sick to your stomach, or cause your hair to fall out. But these problems go away after treatment ends. Some chemo drugs might cause other side effects, some of which might last a long time.

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

## **Targeted and other drugs**

after treatment ends.

There are ways to treat most of the side effects caused by targeted or other types of





2. [www.cancer.org/cancer/types/bone-cancer/about.html](http://www.cancer.org/cancer/types/bone-cancer/about.html)
3. [www.cancer.org/cancer/managing-cancer/advanced-cancer/bone-metastases.html](http://www.cancer.org/cancer/managing-cancer/advanced-cancer/bone-metastases.html)
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22. [www.cancer.org/cancer/survivorship/be-healthy-after-treatment.html](http://www.cancer.org/cancer/survivorship/be-healthy-after-treatment.html)
23. [www.cancer.org](http://www.cancer.org)

## Words to know

**Amputation** (am-pyoo-TAY-shun): Surgery to remove part or all of a limb (an arm or leg)

**Biopsy** (BY-op-see): The removal of small pieces of tissue to see if they contain cancer cells

**Metastasis** (muh-TAS-tuh-sis): The spread of cancer from where it started to other places in the body

**Orthopedic surgeon** (or-thuh-PEE-dik SUR-jun): A doctor who uses surgery to treat bone and joint problems

**Orthopedic oncologist** (or-thuh-PEE-dik on-KAHL-uh-jist): An orthopedic surgeon who specializes in treating cancer of the bones and joints

### **How can I learn more?**

We have a lot more information for you. You can find it online at [www.cancer.org](http://www.cancer.org)<sup>23</sup>. Or, you can call our toll-free number at 1-800-227-2345 to talk to one of our cancer information specialists.

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