What is osteosarcoma?

Cancer can start any place in the body. Osteosarcoma is the most common type of cancer that starts in the bone. It starts when bone cells become not normal and grow out of control.

Most osteosarcomas happen in children and teens, but adults can get them too. There are many types of osteosarcomas. Your doctor can tell you more about the type you have.

This cancer most often starts in the bones around the knee, or in the upper arm bone. But it can also start in other bones.

Sometimes cancer cells from osteosarcoma can spread to other parts of the body, such as the lungs. When cancer cells do this, it’s called metastasis. (pronounced meh-TAS-tuh-sis).

When bone cancer spreads to the lung (or any other place), it’s still bone cancer. It’s not lung cancer unless it starts from cells in the lung.
The bone

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 osteosarcoma?

Pain in the bone is the most common symptom. Swelling in the same area is another symptom. If symptoms of pain or swelling don’t go away or get worse with time, you should go to a doctor to get it checked out. Your doctor will ask questions about the symptoms and do a physical exam.

If signs are pointing to osteosarcoma, more tests will be done. Here are some of the tests that may be done:

Tests that may be done

**Bone x-rays:** This is often the first test done if a doctor suspects a bone tumor.

**MRI scan:** MRIs use radio waves and strong magnets instead of x-rays to take pictures. MRIs make it easier to see the bone and other areas of the body. This helps the doctor plan for a biopsy (see below) and surgery.

**CT scan:** This test uses x-rays to make clear pictures of your insides. This may be done to see if cancer has spread to the chest.

**Bone scan:** A bone scan can help show if a cancer has spread to other bones. This test is useful because it can show all of the bones in the body at once.

**PET scan:** PET scans use a special kind of sugar that can be seen inside your body with a special camera. If there is cancer, this sugar shows up as “hot spots” where the cancer is found. This test can help show if the cancer has spread.

**Bone biopsy**

In a biopsy (BY-op-see), the doctor takes out a small piece of bone to check it for cancer cells. A biopsy is the only way to tell for sure if you have cancer.

There are two main ways to get a biopsy of the bone. Ask your doctor what kind you will
need.

**Grading osteosarcoma**

The cancer cells in the biopsy sample will be given a grade. This helps doctors know how fast the cancer is likely to grow and spread. Cancer cells are given a grade based on how much they look like normal cells. Cells that look very different from normal cells are given a higher grade and tend to grow faster. Low grade cancer cells are usually slow growing and less likely to spread. Ask the doctor to explain the grade of your cancer.

**Questions to ask the doctor**

- What tests will I need?
- 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 osteosarcoma, the doctor will want to find out how far it has spread. This is called the stage of the cancer. 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 bone. It also tells if the cancer has spread to other parts of your body that are close by or farther away.

The lower the stage number, the less the cancer has spread. A higher number means the cancer is worse. Be sure to ask the doctor about the cancer stage and what it means for you.

**Questions to ask the doctor**

- Do you know the stage of the cancer?
What kind of treatment will I need?

The main treatments for osteosarcoma are surgery (SUR-jur-ee) and chemotherapy (KEY-mo-THAIR-uh-pee).

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

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

Surgery

Surgery is an important part of treating nearly all osteosarcomas. Surgery includes both the biopsy to tell for sure that it’s cancer and the surgery to take out the tumor(s). The type of surgery done depends on where the tumor is. Ask your doctor what kind of surgery you will have and what to expect.

A special doctor called an orthopedic (or-thuh-PEE-dik) surgeon who treats problems of the muscles, joints, and bone, does the surgery.

Side effects of surgery

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.

Chemo

Chemo (KEY-mo) is the short word for chemotherapy – the use of drugs to fight cancer. These drugs go into the blood and spread all over the body. Chemo is often given both
before surgery (for about 10 weeks) and then again after surgery for up to a year. Chemo is given in cycles or rounds. Each round of treatment is followed by a break. Most of the time, 2 or more chemo drugs are given.

**Side effects of chemo**

Chemo can make you feel very tired, sick to your stomach, and cause your hair to fall out. You can also have diarrhea, mouth sores, more chance of infection, bleeding, and getting black and blue marks. Some chemo drugs can also harm the kidneys, bladder, and heart.

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

**Radiation treatments**

Radiation (pronounced RAY-dee-AY-shun) uses high-energy rays (like x-rays) to kill cancer cells. For the most part, radiation is not a main treatment of osteosarcoma. Sometimes, though, it may be used when surgery can’t get rid of all of the cancer. Radiation can also help treat symptoms like pain and swelling if the cancer has come back and more surgery can’t be done.

**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 and the area being treated. Common side effects of radiation are:

- Skin changes where the radiation is given
- Feeling very tired

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

**Clinical trials**

Clinical trials are research studies that test new drugs or other treatments in people. They 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 conducts clinical trials. See Clinical Trials\(^1\) 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 might 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**

- Would you write down the exact type of bone cancer this is?
- Has the cancer spread beyond the bone where it started?
- What is the stage of the cancer and what does it mean?
- Do we need to do other tests before we can decide on treatment?
- Will I need to see other doctors?
- 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?
- How is the surgery likely to affect me?
- 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 and maybe other tests to see if the cancer has come back and check on late effects of cancer treatments.

At first, your visits may be every 3 to 6 months. Then, the longer you’re cancer-free, the less often the visits are needed.

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.

Hyperlinks


Words to know

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

Osteosarcoma (OS-tee-oh-sar-KO-muh): A type of cancer that starts in the bones and is mainly seen in teens and children, although it’s also seen in young adults.

Orthopedic surgeon (or-thuh-PEE-dik): A surgeon who specializes in diseases and injuries of the muscles, joints, and bones.
**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. 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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