

What is bone cancer?

Bone cancer is a malignant tumor that develops from the cells of the bone. Primary bone cancer is rare. It accounts for only about 0.5% of all cancers in the U.S. In children, however, it accounts for about 5% of all cancers. There are three main types of bone cancer: osteosarcoma, which arises in new tissue in growing bones; chondrosarcoma which arises in cartilage; and Ewing's sarcoma, which may arise in immature nerve tissue in the bone marrow. Osteosarcoma is the most common of these types, occurring most frequently during adolescence.

What are the early signs of bone cancer?

Some of the warning signs of bone cancer include:

- Pain in the bone and swelling. This pain may come and go, may become worse at night, and is not helped by over-the-counter pain relievers;
- Unexplained bone fractures;
- Fatigue;
- Fever;
- Weight loss; or
- Anemia.

These symptoms can also come from other, less serious conditions. Seeing your health care provider is the only way to find out what may be causing these symptoms.

How is bone cancer diagnosed?

Your health care provider may do one or more of the following procedures to determine if you have bone cancer:

- Complete medical history
- Physical exam
- A blood test to measure alkaline phosphatase. This is an enzyme found in the blood when children are growing, when a broken bone is mending or when a disease or tumor causes production of abnormal bone tissue
- Imaging tests such as x-rays, bone scans, CT scans, an MRI, or an angiogram
- Needle or surgical biopsy of a bone tumor

What are the treatments for bone cancer?

There are three main treatment options for bone cancer. They are used alone or in combination. The treatment plan chosen is based on the type, stage and location of the cancer, and how rapidly the tumor is growing, as well as the age and general health of the patient. The treatments are:

- Surgery - includes options ranging from removal of only the cancerous section of bone through amputation of a limb.
- Chemotherapy
- Radiation therapy

What can I do to reduce my risk of bone cancer?

Unfortunately, there is no known way for an individual to reduce his or her bone cancer risk. People who are at higher risk for this cancer include those who have been treated previously for cancer with radiation therapy or chemotherapy, individuals with pre-existing bone defects or syndromes such as Paget's Disease, and individuals with certain genetically linked disorders such as retinoblastoma. People at high risk should discuss their concerns with their health care provider.

Where to Find More Information on Bone Cancer

American Cancer Society
phone: 1-800-ACS-2345
web site: www.cancer.org

National Cancer Institute
phone: 1-800-4-CANCER
web site: www.rex.nci.nih.gov