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URL of this page: //medlineplus.gov/ency/article/001230.htm

Bone tumor

A bone tumor is an abnormal growth of cells within a bone. A bone tumor may be cancerous (malignant) or noncancerous (benign).

Causes

The cause of bone tumors is unknown. They often occur in areas of the bone that grow rapidly. Possible causes include:

- Genetic defects passed down through families
- Radiation
- Injury

In most cases, no specific cause is found.

Osteochondromas are the most common noncancerous (benign) bone tumors. They occur most often in young people between the ages of 10 and 20.

Cancers that start in the bones are called primary bone tumors. Bone cancers that start in another part of the body (such as the breast, lungs, or colon) are called secondary or metastatic bone tumors. They behave very differently from primary bone tumors.

Cancerous primary bone tumors include:

- Chondrosarcoma
- Ewing sarcoma
- Fibrosarcoma
- Osteosarcoma

Cancers that most often spread to the bone are cancers of the:

- Breast
- Kidney
- Lung
- Prostate

- Thyroid

These forms of cancer usually affect older people.

Bone cancer is more common in people who have a family history of cancers.

Symptoms

Symptoms of a bone tumor may include any of the following:

- Bone fracture, especially from slight injury (trauma)
- Bone pain, may be worse at night
- Occasionally a mass and swelling can be felt at the tumor site

Some benign tumors have no symptoms.

Exams and Tests

The health care provider will perform a physical exam. Tests that may be done include:

- Alkaline phosphatase blood level
- Bone biopsy
- Bone scan
- Chest x-ray
- CT scan of the chest
- MRI of the bone and surrounding tissue
- X-ray of bone and surrounding tissue
- PET scan

The following tests may also be ordered to monitor the disease:

- Alkaline phosphatase isoenzyme
- Blood calcium level
- Blood phosphorus level

Treatment

Some benign bone tumors go away on their own and do not need treatment. Your provider will closely monitor you. You will likely need regular imaging tests, such as x-rays, to see if the tumor shrinks or grows.

Surgery may be needed to remove the tumor in some cases.

Treatment for cancerous bone tumors that have spread from other parts of the body depends on where the cancer started. Radiation therapy may be given to prevent fractures or to relieve pain. Chemotherapy may be used to prevent fractures or the need for surgery or radiation.

Tumors that start in the bone are rare. After biopsy, a combination of chemotherapy and surgery is usually necessary. Radiation therapy may be needed before or after surgery.

Support Groups

You can ease the stress of illness by joining a cancer support group. Sharing with others who have common experiences and problems can help you not feel alone.

Outlook (Prognosis)

How well you do depends on the type of bone tumor.

The outcome is usually good in people with noncancerous (benign) tumors. But some benign bone tumors can turn into cancer.

People with cancerous bone tumors that have not spread may be cured. The cure rate depends on the type of cancer, location, size, and other factors. Talk to your provider about your particular cancer.

Possible Complications

Problems that may result from the tumor or treatment include:

- Pain
- Reduced function, depending on the tumor
- Side effects of chemotherapy
- Spread of the cancer to other nearby tissues (metastasis)

When to Contact a Medical Professional

Contact your provider if you have symptoms of a bone tumor.

Alternative Names

Tumor - bone; Bone cancer; Primary bone tumor; Secondary bone tumor; Bone tumor - benign

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Review Date 3/31/2024

Updated by: Todd Gersten, MD, Hematology/Oncology, Florida Cancer Specialists & Research Institute, Wellington, FL. Review provided by VeriMed Healthcare Network. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team. Editorial update 08/29/2024.

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