HELPING HAND™

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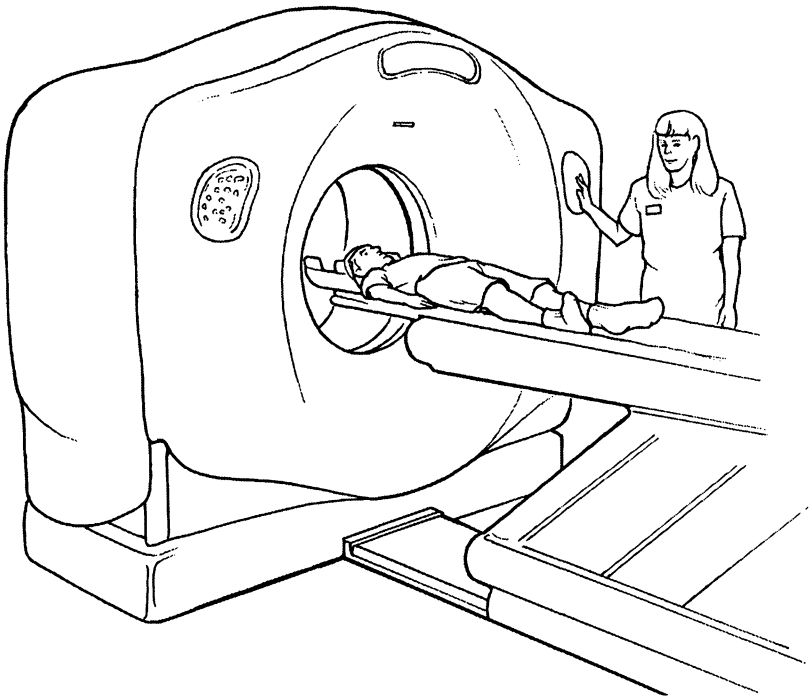
Children's™
INSTITUTE FOR
PEDIATRIC EDUCATION
Supporting The Mission of Children's Hospital, Inc., Columbus, Ohio

OSTEOGENIC SARCOMA

Osteogenic sarcoma is a cancerous tumor of the bone. This type of tumor usually occurs in adolescents and young adults. The tumor is most commonly located near the end of the long bones. More than 50 percent occur near the knee. The next most common site is the upper arm bone near the shoulder. It can also occur in other bones such as ribs, and pelvic bones (Picture 2, page 2). The cause of osteogenic sarcoma is not known. It is rarely hereditary and it is not contagious.

SIGNS AND SYMPTOMS

Often the earliest sign of osteogenic sarcoma is pain. Swelling, warmth, and redness may occur in the area over the affected bone.



Picture 1 Having a CT scan.

DIAGNOSIS

An X-ray of the bone may suggest osteogenic sarcoma, but a biopsy is needed to make a definite diagnosis. A MRI test (Magnetic Resonance Imaging) will be done to evaluate the extent of the disease. A surgeon will do the biopsy in the Operating Room. (A biopsy is a sampling of the tissue of the affected bone.) A pathologist will then look at the tissue under a microscope.

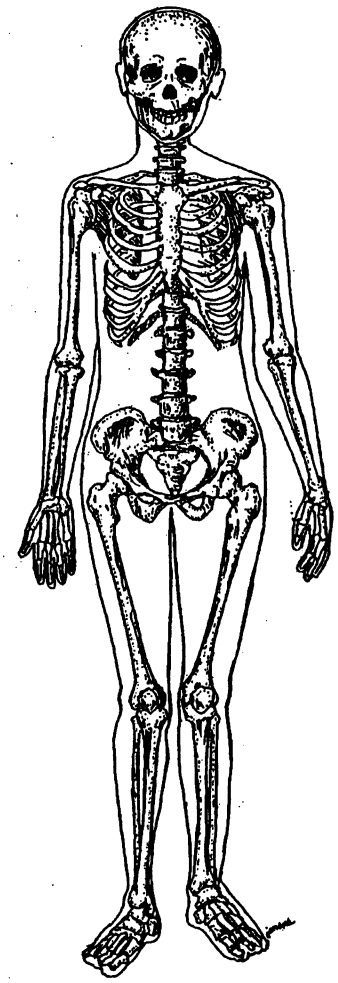
Because osteogenic sarcoma can spread to other parts of the body (metastasis), a careful look for this spread is made before any further surgery or treatment is done. A chest X-ray and chest computed tomography (CT scan) will be done to check for spread to the lungs. A bone scan is done to look for tumors in any other bones.

TREATMENT

Most of the time, the first treatment for osteogenic sarcoma is chemotherapy. The type, amount, and frequency of the chemotherapy are decided by the oncologist (cancer doctor). The goal of chemotherapy is to reduce the size of the tumor.

The next treatment step is surgery. The type of surgery depends on the tumor. An MRI test is repeated before surgery to help the surgeons plan their treatment. A piece of the bone may be removed, or a large part of bone may be removed and replaced with bone taken from another part of the body (such as the hip) or with a metal rod. This is called "limb sparing."

Another possible surgery is amputation (removing) of the affected leg or arm. An amputation of the affected limb may be done instead of limb sparing, or when limb sparing is not possible because of the size and location of the tumor. Your surgeon will discuss surgery options with you.



Picture 2 The skeletal system inside the body.

FOLLOW-UP CARE

- You will have follow-up appointments with a hematologist who will monitor your child's progress.
- X-rays and CT scans are done from time to time to check for spread of disease.

If you have any questions or concerns, be sure to talk with your doctor or nurse.