

Osteosarcoma for the Pediatric Patient

What is osteosarcoma?

Osteosarcoma is a type of cancer that develops from bone cells. It frequently starts in the ends of the long bones but can be found in other bones as well. The most common sites are the distal femur (the thighbone just above the knee), the proximal tibia (the shinbone just below the knee), and the proximal humerus (the arm just below the shoulder). Osteosarcoma can spread to almost any organ or tissue in the body, but if it spreads it usually spreads to the lungs first.

Osteosarcoma most often occurs in children and young adults between 10 and 20 years of age who are undergoing a growth spurt. It is frequently diagnosed when there has been trauma to the affected area, but there is no known relationship between the trauma or a person's stage of growth and the risk of developing osteosarcoma. The probability of other family members developing osteosarcoma is probably the same as for the general population (very low risk).

What are the symptoms of osteosarcoma?

There may be swelling and pain in the bone around the tumor. Activity may cause the pain to increase. If the tumor is in the hip or leg area, the child may limp.

How is osteosarcoma diagnosed and treated?

If your child has symptoms of osteosarcoma, the doctor may order several diagnostic tests, including a biopsy of the tumor, x-rays, a CT scan, an MRI, and a bone scan. These tests will help determine the size and location of the tumor and whether it has spread to another part of the body. This is called staging. It is important to know the stage of the disease so that the doctor can plan the most appropriate treatment.

Two types of therapy are commonly used to treat osteosarcoma: surgery (limb salvage or amputation) and chemotherapy. Chemotherapy is usually given for several months prior to surgery and then again after surgery. The type of surgery chosen depends upon the size and location of the tumor, and age of your child.