

## Pediatric Primary Malignant Bone Tumor

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### Abstract

Primary bone tumors are the sixth most common neoplasm occurring in children and constitute approximately 6% of all childhood malignancies with a peak incidence in 15- to 19-year-old individuals. These lesions are the third most common tumors in adolescents and young adults (exceeded only by leukemia and lymphoma) common complaints are intermittent to constant mild to severe pain, constitutional symptoms (fever, weight loss). Swelling, erythema in the affected extremity; fracture and lesions may be found incidentally on radiographs obtained for other reasons. Radiographic distinction are poorly circumscribed mass with cortical disruption; multiple layers of poorly organized periosteal new bone (eg, and quot; onionskin and quot; appearance of Ewing's sarcoma); slow-growing lesions will have moth-eaten lucencies, while faster-growing lesions will have permeative destruction Osteosarcoma and small round cell tumor such as Ewing sarcoma and lymphoma are the most common malignant bone tumors in this age group. Although the overall incidence of osteosarcoma is higher than Ewing sarcoma in adolescents younger than 20 years, Ewing sarcoma is more common in children younger than 10 years of age. MRI or CT to determine extent of skeletal involvement and biopsy is necessary for definitive histologic diagnosis. LDH can be used as a marker in order to detect response to therapy as well as for recurrence in Ewing sarcoma; and elevated serum alkaline phosphatase in osteosarcoma.

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