



[Home](#) → [Medical Encyclopedia](#) → Ewing sarcoma

URL of this page: //medlineplus.gov/ency/article/001302.htm

Ewing sarcoma

Ewing sarcoma is a malignant bone tumor that forms in the bone or soft tissue around it. It affects mostly teens and young adults.

Causes

Ewing sarcoma can occur anytime during childhood and young adulthood. But it usually develops during puberty, when bones are growing rapidly. It is more common in White children than in Black or Asian children.

The tumor may start anywhere in the body. Most often, it starts in the long bones of the arms and legs, the pelvis, or the chest. It can also develop in the skull or the flat bones of the trunk.

The tumor often spreads (metastasizes) to the lungs and other bones. At the time of diagnosis, spread is seen in about one third of children with Ewing sarcoma.

In rare cases, Ewing sarcoma occurs in adults.

Symptoms

There are few symptoms. The most common is pain and sometimes swelling at the site of the tumor.

Because the tumor weakens the bone, children may also break a bone at the site of the tumor after a minor injury.

Fever may also be present.

Exams and Tests

If a tumor is suspected, tests to locate the primary tumor and any spread (metastasis) often include:

- Bone scan
- Chest x-ray
- CT scan of the chest
- MRI of the tumor
- X-ray of the tumor

A biopsy of the tumor will be done. Different tests are done on this tissue to help determine how aggressive the cancer is and what treatment may be best.

Treatment

Treatment often includes a combination of:

- Chemotherapy
- Radiation therapy
- Surgery to remove the primary tumor

Treatment depends on the following:

- Stage of the cancer
- Age and sex of the person
- Results of the tests on the biopsy sample

Support Groups

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

Outlook (Prognosis)

Before treatment, outlook depends on:

- Whether the tumor has spread to distant parts of the body
- Where in the body the tumor started
- How large the tumor is when it's diagnosed
- Whether the lactate dehydrogenase (LDH) level in the blood is higher than normal
- Whether the tumor has certain gene changes
- Whether the child is younger than 15 years
- Child's sex
- Whether the child has had treatment for a different cancer before Ewing sarcoma
- Whether the tumor has just been diagnosed or has come back

The best chance for cure is with a combination of treatments that includes chemotherapy plus radiation or surgery.

Possible Complications

The treatments needed to fight this disease may have many complications. Discuss these with your health care provider.

When to Contact a Medical Professional

Contact your provider if your child has any of the symptoms of Ewing sarcoma. An early diagnosis can increase the possibility of a favorable outcome.

Alternative Names

Bone cancer - Ewing sarcoma; Ewing family of tumors; Primitive neuroectodermal tumors (PNET); Bone neoplasm - Ewing sarcoma; Ewing's sarcoma

References

Heck RK, Toy PC. Malignant tumors of bone. In: Azar FM, Beaty JH, eds. *Campbell's Operative Orthopaedics*. 14th ed. Philadelphia, PA: Elsevier; 2021:chap 27.

National Cancer Institute website. Ewing sarcoma and undifferentiated small round cell sarcomas of bone and soft tissue treatment (PDQ) - health professional version.

www.cancer.gov/types/bone/hp/ewing-treatment-pdq [https://www.cancer.gov/types/bone/hp/ewing-treatment-pdq]. Updated April 19, 2024. Accessed May 15, 2024.

National Comprehensive Cancer Network website. NCCN clinical practice guidelines in oncology (NCCN guidelines): Bone cancer. Version 2.2024.

www.nccn.org/professionals/physician_gls/pdf/bone.pdf [https://www.nccn.org/professionals/physician_gls/pdf/bone.pdf]

. Updated March 12, 2024. Accessed May 15, 2024.

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.

Learn how to cite this page



CERTIFIED
Health Content Provider
06/01/2028

A.D.A.M., Inc. is accredited by URAC, for Health Content Provider (www.urac.org). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#), and [privacy policy](#).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Links to other sites are provided for information only – they do not constitute endorsements of those other sites. No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, timeliness, or correctness of any translations made by a third-party service of the information provided herein into any other language. © 1997-2025 A.D.A.M., a business unit of Ebix, Inc. Any duplication or distribution of the information contained herein is strictly prohibited.

