

Incidence Rate Trends

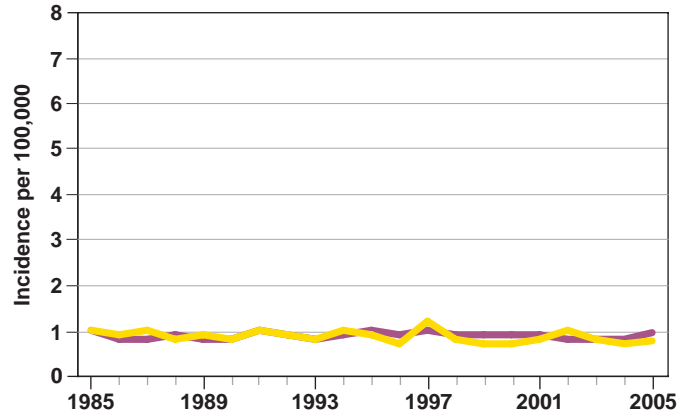
Sarcomas are a diverse group of malignant tumors that develop from fat, muscles, nerves, joints, blood vessels, bones, and deep skin tissues. Sarcomas are difficult to differentiate from other malignancies when they are found within organs; thus, they are frequently misdiagnosed and highly underreported. As a result, although the incidence estimates presented here include the best available data, they are probably low. Because sarcomas often afflict people in the prime of life, the number of years of life lost is substantial despite the relatively low incidence. It is estimated that approximately 1,270 Americans will be diagnosed with sarcoma and 5,150 will die from the disease in 2008.

Soft tissue sarcoma¹ and osteosarcoma (bone sarcoma) incidence rates have remained relatively constant over the past 30 years; however, soft tissue sarcoma is more deadly due to the lack of detectable symptoms at early disease stages. Several subtypes of osteosarcoma and soft tissue sarcoma exist; the exact number of Americans with each sarcoma subtype is unknown.

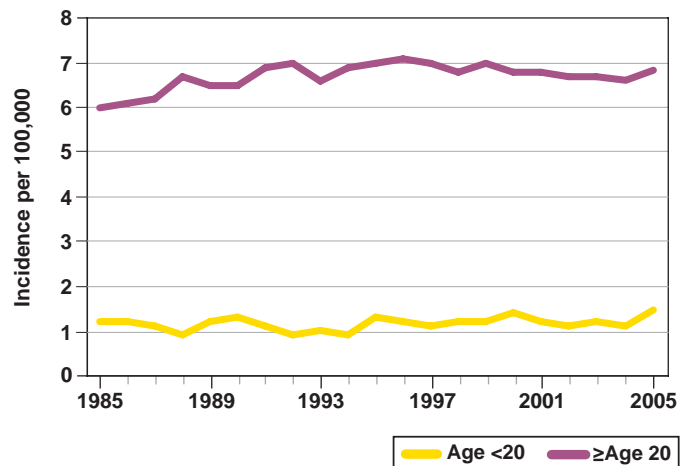
Source for incidence data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at <http://seer.cancer.gov/>.

¹Does not include Kaposi sarcoma, which is addressed in a separate Snapshot.

U.S. Bone Sarcoma Incidence by Age



U.S. Soft Tissue Sarcoma Incidence by Age



Trends in NCI Funding for Sarcoma Research

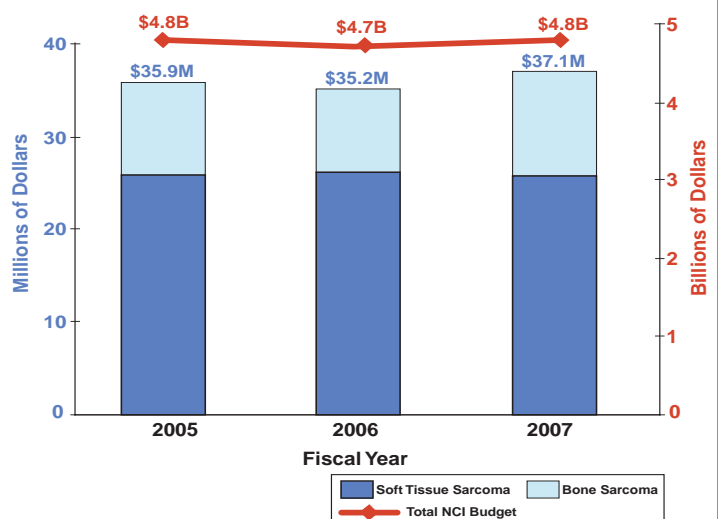
Funding data for sarcoma has only been collected since 2005. The National Cancer Institute's (NCI's) investment² in sarcoma research³ increased from \$35.9 million in fiscal year 2005 to \$37.1 million in fiscal year 2007.

Source: NCI Office of Budget and Finance (<http://obf.cancer.gov/>).

²The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health, see <http://www.nih.gov/about/>.

³Does not include Kaposi sarcoma, which is addressed in a separate Snapshot.

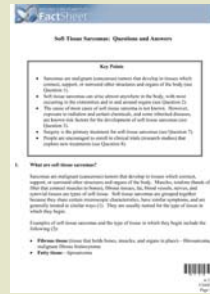
NCI Sarcoma Research Investment



Examples of NCI Activities Relevant to Sarcoma

- The **Community Clinical Oncology Program (CCOP)** and the **Minority-Based Community Clinical Oncology Program (MB-CCOP)** are comprehensive clinical trial mechanisms that disseminate the latest cancer prevention and treatment research findings to the community. Several CCOP and MB-CCOP groups currently participate in sarcoma clinical trials. <http://prevention.cancer.gov/programs-resources/programs/ccop>
- The **Sarcoma Progress Review Group (PRG)** and the **Adolescent and Young Adult Oncology (AYAO) PRG**, two panels of prominent scientists and patient advocates, assessed the state of the science and identified future research priorities for sarcoma and other understudied cancers in adolescents and young adults. <http://planning.cancer.gov/pdf/prgreports/2004sarcoma.pdf> and http://planning.cancer.gov/disease/AYAO_PRG_Report_2006_FINAL.pdf
- NCI's **Strategic Partnering to Evaluate Cancer Signatures (SPECS)** program explores how information from molecular studies can be used to improve the care and outcomes of cancer patients. One SPECS project is refining and validating molecular signatures to provide a more accurate diagnosis of childhood sarcomas and predict their clinical behavior. <http://cancerdiagnosis.nci.nih.gov/specs/index.htm>
- The **Prevention Agents Program** provides scientific and administrative oversight for chemoprevention agent development from preclinical research to early Phase I studies. The program is currently supporting research on several agents for potential chemopreventive efficacy in sarcoma. <http://prevention.cancer.gov/programs-resources/groups/cad/programs/agents>

Questions and Answers on Soft Tissue Sarcoma



For additional information on soft tissue sarcoma, including suspected risk factors, possible causes, and NCI research studies, see NCI's Fact Sheet on soft tissue sarcoma.

<http://www.cancer.gov/cancertopics/factsheet/Sites-Types/soft-tissue-sarcoma>

Information specialists can also answer your questions about cancer at 1-800-4-CANCER

- NCI's **Drug Development Group (DDG)** supports the oversight and preclinical/clinical development of therapeutics, including potential agents for the treatment of sarcoma. <http://dtp.nci.nih.gov/docs/ddg/ddg%5Fcurrent.html>
- The **International Ewing Sarcoma Study** is a clinical trial of a promising new agent against this disease. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_031808/page3
- The **Soft-Tissue Sarcoma Home Page**, **Bone Cancer Home Page**, **Uterine Sarcoma Home Page**, and **Ewing Family of Tumors Home Page** provide up-to-date information on treatment, prevention, genetics, screening, and testing for various types of sarcoma. <http://www.cancer.gov/cancerinfo/types/soft-tissue-sarcoma/> and <http://www.cancer.gov/cancerinfo/types/bone/> and <http://www.cancer.gov/cancerinfo/types/uterinesarcoma/> and <http://www.cancer.gov/cancerinfo/types/ewing/>

Selected Advances in Sarcoma Research

- A recent study identified a potential mechanism to explain the resistance of Ewing sarcoma to a protein that could be useful in fighting cancer. The study further provides a possible method for overcoming this resistance. <http://www.cancer.gov/newscenter/pressreleases/EwingsTRAIL>
- Investigators have learned that imatinib increases recurrence-free survival when it is given after the complete resection of primary gastrointestinal stromal tumor (GIST). <http://www.asco.org/portal/site/ASCO/menuitem.34d60f5624ba07fd506fe310ee37a01d?vgnextoid=76f8201eb61a7010VgnVCM10000ed730ad1RC>

[RD&vmview=abst_detail_view&confID=47&abstractID=100001#](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_072407/page4#b)

- Researchers used a fluorescent bioconjugate, referred to as a "tumor paint," to target sarcoma and other cancer cells with high resolution. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_072407/page4#b
- A combination of the experimental drug mifamurtide with chemotherapy improves survival in patients with osteosarcoma compared to chemotherapy alone. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_021908/page3