Tumor Care

Our musculoskeletal oncology specialists treat patients diagnosed with a wide variety of orthopedic oncologic problems. We are nationally recognized for our expertise in the treatment of these conditions.

OUR TEAM

Our fellowship-trained orthopedic oncologists work closely with fellowship-trained radiologists, pathologists, adult and pediatric oncologists, and radiation oncologists to create individualized care plans that aggressively treat cancer while ensuring the highest quality of life for each patient.

TREATMENT APPROACH

In collaboration with Barnes-Jewish Hospital and the Siteman Cancer Center, we diagnose and treat patients of all ages with benign, malignant, and metastatic diseases of the musculoskeletal system.

Benign tumors include:
- Osteochondromas and other cartilage lesions
- Bone cysts
- Giant cell tumors
- Nerve sheath tumors

Malignant tumors include:
- Osteosarcoma
- Ewing's sarcoma
- Chondrosarcoma
- Soft tissue sarcomas of the extremities, chest wall, and sacrum

Chordomas and other complex sacral tumors are treated with a multidisciplinary approach, including spine surgeons and colorectal surgeons, to maximize oncologic and functional results. From a surgical standpoint, the goal is to completely remove the tumor, while persevering and maximizing extremity function. In nearly all patients with benign tumors, this can be accomplished while maintaining a functional extremity, even in patients with primary malignancy. Because of our extensive experience in limb salvage techniques, we are able to avoid amputation in more than 90 percent of surgical cases. Specific techniques used in limb reconstruction after tumor removal include:
- Large fragment allograft reconstruction
- Metallic endoprosthetic bone and joint reconstruction
- Vascularized fibular graft reconstruction

We offer expandable endoprosthetic implants for growing children and adolescents to optimize limb length equality. In the event that amputation is required to control a tumor, we have the skill and experience to perform these procedures safely and effectively, even in technically demanding areas like hemipelvectomies and forequarter amputations. We also coordinate prosthetic fitting and rehabilitation, from pre-operative consultation to post-operative therapy. For all patients, rehabilitation starts as soon as possible after surgery. Inpatient rehabilitation focuses on teaching patients how to move and function safely with reconstructed limbs and continues on an outpatient basis.

Advanced Techniques

More than 90% of patients who undergo surgery avoid amputation because of our extensive experience in limb salvage techniques.

Many options are available for the growing child or adolescent, including expandable endoprosthetic implants.
SPECIALIZED SERVICES

Sarcoma Program
Our musculoskeletal oncology specialists are part of the Siteman Cancer Center’s sarcoma program, which is one of the largest sarcoma programs in the Midwest. While the prevalence of sarcoma is less than one percent of the general population, these tumors are not rare to the multidisciplinary team at Siteman. Our team sees hundreds of new patients a year and offers a full array of treatments and clinical trials to treat these rare tumors.

RESEARCH AND CLINICAL TRIALS
We are nationally recognized for orthopedic research and premier clinical care. Our research program is consistently a top-funded orthopaedic program in the United States by the National Institutes of Health.¹ For information on current research and clinical trials available, please visit our website at: ortho.wustl.edu.

COMMONLY TREATED CONDITIONS

- Benign Primary Bone Tumors
- Malignant Primary Bone Tumors
  - Osteosarcoma
  - Ewing’s Sarcoma
  - Chondrosarcoma
- Benign Soft Tissue Tumors
- Malignant Soft Tissue Tumors
- Metastatic Lesions to the Bone

¹ Blue Ridge Institute for Medical Research