

# Tackling Sarcomas

## Specialty Teams Treat Children's Bone Cancer



Amy Williams M.D., medical director,  
Pediatric Orthopedic Center,  
Miller Children's & Women's  
Hospital Long Beach

"There are kids who don't complain of pain, or play through pain. The difference is that pain associated with sarcoma does not go away."

When it comes to bone cancer and kids, a diagnosis can be tricky – yet treatment is extremely effective.

Parents of children who have cancerous bone tumors are best served by the Pediatric Orthopedic Center care team, which collaborates seamlessly with the Jonathan Jaques Children's Cancer Center (JJCCC) at Miller Children's & Women's Hospital Long Beach.

A unique children's hospital brings these specialists together to make up a multi-disciplinary care team that cares for children with cancer throughout their journey. "The benefit of having the entire team work out of Miller Children's is that we can work together on care," says Amy Williams, M.D., pediatric orthopedic surgeon specializing in musculoskeletal oncology at Miller Children's. "If you don't have that cohesion, the child will suffer." Team members are blended from both the Pediatric Orthopedic Center and JJCCC to give patients and their families access to experts including pediatric oncologists, physical therapists, dietitians, psychologists, social workers and more. The combined team offers patients the highest level of expertise and the best possible outcomes.

Diagnosing bone cancer in children can be tricky, Dr. Williams explains. "It's tough because symptoms are vague, usually identified as pain that doesn't go away with the usual treatment. The child rests, takes over-the-counter pain medication and avoids overuse but the apparent injury isn't healing."

Malignant bone tumors are soft tissue masses that often cause abnormal swelling, she notes. "There are kids who don't complain of pain, or play through pain," says

Dr. Williams. "The difference is that pain associated with sarcoma does not go away."

For the most part, she continues, physicians recognize the red flags and X-rays provide more information.

Bone cancers are a subtype of a group of cancers known as sarcomas. Sarcomas are cancers that start in bone, muscle, connective tissue, blood vessels or fat, and can be found anywhere in the body. The two most typical cancers treated by the Miller Children's are:

- **Osteosarcoma:** Also known as osteogenic sarcoma, it's the most common type of bone cancer. It usually begins in bone cells in the arms, legs or pelvis. It occurs most frequently in patients between the ages of 10 and 30.
- **Ewing tumor:** Also known as Ewing's sarcoma, it typically starts in the bones but also can start in other tissues and muscles. It is the third most-common form of primary bone cancer. It occurs most frequently in children and teenagers.

Treatment for children with bone cancer is different than for adults, Dr. Williams says, in part because children respond better to treatment. "The treatment plans for adults and children are similar: They receive chemotherapy for a certain amount of time, then have surgery to remove the tumor and reconstruction, then more chemo to clean up. Children's chemo response is faster and better." Treatment usually takes a year, and outcomes show a 75-80 percent five-year survival rate.

Dr. Williams is a 2009 graduate of the University of Miami Miller School of Medicine, where she was part of the Medical Scholars Program. She completed training in University of Southern California's Orthopaedic Surgery Residency Program in 2014.

She completed fellowships in both pediatric orthopedic surgery and musculoskeletal oncology at Seattle Children's Hospital and the University of Washington Medical Center. Her dual fellowship training places Dr. Williams among a select national group of orthopedic surgeons who specialize in both fields.

"To treat patients effectively, we treat the whole child," Dr. Williams says. "It's really important to have open lines of communication. It makes it easier on the patient and family and is far more streamlined."

Treatment isn't just the surgery or the chemo, she continues. "Postoperatively, there are other issues for kids who have bone cancer. The more the specialists work together the better the treatment goes."

Collaborative treatment means that Dr. Williams has ready access to physical therapy notes and open communications with every other care team member.

"We are here for whatever the patient needs," Dr. Williams declares.

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Zachary, 15-years-old,  
Miller Children's  
Bone Tumor Patient

Our specialty:  
**Orthopedics**

Zachary's specialty:  
**Volleyball Ace**

Our specialists are the leaders  
in children's health care.

For months, Zachary was experiencing hip pain. An x-ray revealed a bone tumor and Zachary was referred to Dr. Amy Williams at Miller Children's & Women's Hospital Long Beach, who diagnosed him with Ewing's sarcoma. Dr. Williams is one of the only doctors in California who specializes in both pediatric orthopedics and bone tumors. Dr. Williams performed a limb salvage surgery to completely remove the cancerous tumor while preserving Zachary's leg. After chemotherapy, radiation and rehabilitation guided by Miller Children's, today, Zachary is standing tall.

*From tip-top head to itty bitty toes, Miller Children's is the leader in getting kids better.*

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