



Life-Changing Surgery Restores Childhood Dreams

By Kimberly Marselas

As a child, Rachael Foote had to sit out as her friends played tag and hide-and-peek. She could only watch from the audience as they began to explore ballet and jazz dance.

But today, after innovative treatment repaired a deformed hip caused by childhood disease, Rachael is taking center stage. ▶



"Now, I can take any dance class I want," says the Woodbine teenager. "My surgeries have changed my life."

Rachael suffered from Perthes disease, where the ball of her hip lost its blood supply, died and collapsed. Though the body removes the dead bone in Perthes patients, the remaining hip bone and cartilage aren't strong enough to support new bone that grows. The result is a stiff, often painful condition that can become debilitating.

For Rachael, the pain began when she was 5 and quickly led to her parents pushing her in a stroller or wheelchair.

"It really stole her childhood," says Rachael's mom, Sandi Foote. "There was no running, no jumping, no childhood games. I was constantly telling her 'You can't do this. You can't do that.'"

That was until Rachael came to the Rubin Institute for Advanced Orthopedics at Sinai Hospital. There, Shawn C. Standard, M.D., head of pediatric orthopedics at the International Center for Limb Lengthening, offers a fairly unique treatment plan for children struggling with the effects of Perthes disease.

Most patients begin with a two- to four-week stretching program that may restore some range of motion.

"There's always a chance, so you give the child the chance," says Standard. "More typically, the child will then need to undergo a soft-tissue release, which is releasing the tight muscles."

In Rachael's case, she needed even more aggressive treatment. She was in the right place.

The International Center for Limb Lengthening's four surgeons, including Standard and Drs. John E. Herzenberg, Janet D. Conway and Bradley M. Lamm, are the country's most experienced deformity correction surgeons.

The center is internationally recognized for its innovative treatments for Perthes, as well as clubfoot, ankle joint

preservation and other deformities. Patients from all 50 states and more than 50 countries have traveled to the center for comprehensive orthopedic treatment.

Following a procedure developed at the center in 1990, Standard performed a core compression and a hip distraction on Rachael. During surgery, doctors pulled the hip back to its normal position in the joint. They applied an external fixator between the pelvis and the femur that permits hip motion while moving the bones apart.

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The result: the deformed femoral head (the ball of her hip) began to morph from a flattened ball to a round ball. Rachael had to wear the brace full-time for six weeks, followed by nighttime wear for a total of four months. Then it was on to an intense bout of physical therapy, including sessions in the pool, to improve her hip joint alignment and reverse more of the damage that Perthes had already done.

In the past, patients like Rachael would have been candidates for osteotomy, a surgery that requires doctors to cut the bone of the pelvis or the upper femur and bend it in to reorient the hip socket. But both methods have a high failure rate, especially in children older than 8 years.

The distraction method is now used regularly at the Rubin Institute; the success rate is greater than 90 percent in the most difficult cases. There's no damage to the leg or pelvis to treat Perthes, and the hip remains in place. Patients regain full motion and are able to flex, extend, abduct, adduct, and rotate internally and externally.

"As soon as the fixator comes off, they go back to full weight-bearing and range-of-motion, bike riding and swimming," Standard says.

After her surgery, Rachael trained for a 30-mile charity bike ride that benefited other children at the Rubin Institute through the Save-A-Limb Fund. She beat Standard to the finish line.

The Footes also joined an online support group for other patients with limb-growth anomalies, either on their legs or arms.

"Their child may not have had the exact same condition, but they understand just being a parent of a child that is having to undergo these medical treatments," says Standard.

Sandi says she had no qualms about letting her daughter have the advanced surgery. Standard showed the Footes models of the hip joint, as well as operative pictures of bones and fixators on other patients who'd previously had the procedure. He talked with Rachael, as well.

"He's very patient and he takes the time," Sandi says. "He makes sure all of your questions are answered before you leave that office."

Rachael also felt a part of the process, and is today glad that she opted for the distraction procedure.

"Not only [did the surgery] make my hips better and stronger, but it made me a better person," says Rachael, who performs with a dance ensemble. "I know not to take things for granted: things like tying your shoes, walking upstairs. Once you have something like that happen, it's life-changing." 🦸

For more information about the Rubin Institute for Advanced Orthopedics, visit www.lifebridgehealth.org.



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