



“It’s a life-changing surgery that helps people relieve pain, stay active and feel good about themselves.”

~John Klimkiewicz, M.D., orthopaedic surgeon

Pre- and post-operative X-rays of Ratha Ea, patient

# TRANSFORMING LEGS—AND LIVES

## Alternative to knee replacement corrects alignment

A young woman embarrassed by her severely bowed legs. A marathon runner who wants to avoid knee replacements. An aggressive weekend athlete with painful arthritis. All have found a solution through high tibial osteotomy surgery, a minimally-invasive procedure to change the alignment of knees and straighten legs.

“This procedure eliminates deformity, which leads to arthritis and pain,” explains John Klimkiewicz, M.D., a Sibley orthopaedic surgeon who has performed more than 1,000 high tibial osteotomy surgeries and drawn patients from around the world. The surgery focuses on knee preservation as an alternative to knee replacement. When legs are bowed slightly or severely, all the pressure and weight is put on one side of the knee, causing the joint to break down. High tibial osteotomy surgery changes patients’ biomechanics by straightening their legs to distribute stress more equally.

In some cases, bowed legs are a genetic deformity. For others, strenuous sports or previous unsuccessful surgery to remove knee cartilage has led to bowed legs and, ultimately, arthritis.

Dr. Klimkiewicz makes a one- to two-inch incision on the tibia, the bone connecting the knee with the ankle bones. The incision, based on angles measured from pre-operative X-rays, is made on one side of the bone, leaving the other side intact. The bone is opened like a triangle; the greater the degree of deformity, the greater the base of the triangle. A plate and screws are inserted and packed with synthetic bone, which will heal on its own. “This surgery can be performed on both legs at the same time, or one leg at a time with several months between procedures,” Dr. Klimkiewicz notes. “Recovery takes about four to six months. Patients usually spend one night in the hospital. After two to three weeks on crutches, they can use an exercise bike, and after eight weeks, start using an elliptical machine.



Ratha Ea, patient, with John Klimkiewicz, M.D., orthopaedic surgeon, at Washington Orthopaedics and Sports Medicine (WOSM)

After rehabilitation, there are really no limitations, since the bone has been cut and re-set in a more optimal position. Even very serious athletes can return to their previous level of activity.”

“I feel like a completely new person.”

~Ratha Ea, patient

“This procedure can have both immediate and long-term effects on patients’ lives,” says Dr. Klimkiewicz. “People whose deformity causes low self-esteem and joint pain feel relief right away. And the surgery can prevent or delay arthritis and the need for knee replacements in the future.”

## A PATIENT’S STORY

“When I was six years old, I saw a family photo and noticed I was the only one who didn’t have normal legs like everyone else,” said Ratha Ea, patient. “Growing up, I always had low self-esteem. I’d wear loose pants and long dresses to hide my bowed legs. Once I was at a farmer’s market, and a guy pointed out my legs and laughed at me. I didn’t know how to react, I felt numb. My legs never hurt, I just didn’t like the way they looked. But now, I realize that having the surgery was as important to my future health as to my appearance.

I was nervous, but I read so much about Dr. Klimkiewicz and felt so comfortable at my appointments that I knew he was the best. So in my early thirties, I had the procedure on my right leg, and then two and a half months later, on my left leg. Overall, recovery wasn’t bad. Medication controlled my pain, and I was back at work in a couple of weeks. I also did all of my physical therapy,” said Ea.

“A year later, she’s doing everything she wants, and by preventing her joints from breaking down, she’ll hopefully never need knee replacement at all,” says Dr. Klimkiewicz. Ea agrees. “I’m so happy I did it. I’m back to normal—jogging and working out every day. Best of all, I’m so much more confident. I put on skinny jeans, short skirts and heels and feel like everybody else. It changed my life. I’ve become a different person.”