"But immediately after the surgery, they got me up to walk, and I did it. It was like a lifelong problem was gone in an instant."

Edward Guerrero had gotten used to the rude comments and stares. He suffered from extremely bowed legs, a condition known as genu varum. Taunts of other children had driven him to tears as a boy.

To his great surprise, double knee replacement surgery at age 56 changed his life.

"Growing up, it was tough," he said. The teasing pushed him to prove he was equal to, and even better than, the other kids in physical activities. He ran, played sports and excelled so no one could say he was handicapped.

In the Air Force, he met every physical requirement. But there was pain. His legs caused problems with his back alignment and put unusual pressure on his knees that, over time, deteriorated the cartilage.

"After high school, I didn't realize the more I exercised, the more damage I was doing," he said. Eventually, pain forced him to seek a waiver from the service's physical requirement. After 1995, he stopped high-impact exercise. He stayed fit with cardio workouts and was deployed overseas three times. But when he left the Air Force in 2001, he could no longer run or jump due to the pain.

Temporary Relief

In 2010, Edward became diversity director for Maricopa County. But merely standing during presentations was a struggle. The little relief he got from doctors and pain-management specialists was always temporary.

By 2012, at age 56, he had severe osteoarthritis in his knees. For his back pain, he saw a chiropractor as often as three times a week.

Finally, he visited orthopedic surgeon Steven R. Kassman, MD. "Dr. Kassman said I definitely needed my knees replaced," Edward said. "They were bone on bone.

"It was obvious that his deformity had taken a serious toll on his knees," Dr. Kassman said. Fifty-six is young for a total knee replacement, but bad alignment from the genu varum condition meant stress was not distributed evenly across his knees. As he got older, they wore prematurely."

Surgery Also Straightened Legs

Edward was delighted when he learned the double knee replacement surgery (see sidebar) would straighten his legs, too. They now look normal for the first time in his life. The operation couldn't have come at a better time — Edward had been facing life in a wheelchair due to pain.

"It wasn't unusual for me to sleep all day on Saturday because of how tired I would get just doing administrative work in an office," he said. "I could not stand for more than 20 minutes without my knees getting so swollen I could barely walk.

"But immediately after the surgery," he continued, "they got me up to walk, and I did it. It was like a lifelong problem was gone in an instant."

Edward spent four days in recovery in the orthopedic unit at John C. Lincoln Deer Valley Hospital. The first day, he could walk with the aid of a walker.

"I was very leery at first," he said. "I had two brand new knees, and I had no idea what was going to happen. That ortho floor is a really big place. They were shocked that I walked the entire way around it."
He also used the unit's Secure-Track, a 110-foot monorail ceiling track that runs the length of the back hall. Strapped into the system, Edward was able to put weight on his legs. "Yet I had no fear of falling. It's great," he said.

**Five Stars**

"Out of five stars, I'd give it a five," he said of the Deer Valley Hospital.
"I felt like they cared about me, not just as a number but as a person."

"As total knee replacements go, it was a pretty standard procedure," Dr. Kassman said. "But because of how badly bowed his legs were, the change is dramatic. His legs turned out nicely, and I'm very happy with his progress."

Edward is much more effusive. "It's changed my life. I feel really blessed. Everyone tells me I look so much happier. My quality of life is so much better. I feel like I'm 15 years younger."

**A Precise Fit**

For Edward Guerrero's knee replacements, orthopedic surgeon Steven R. Kassman, MD, used an advanced technology that:
- Produces patient-customized "cutting blocks" from pre-operative MRI images of the patient's knees prior to the surgery.
- Uses the MRI images to create maps of the patient's knee and limb alignment.
- Allows precise sizing of the components, aligned to the mechanical axis of the knee. This provides significant improvement in the final fitting and alignment of limbs in such surgeries.

During the surgery, the plastic blocks fit over the end of the thigh and shin bones and serve as templates for making cuts in the bone for the new knee components.

Those components are universally metal-on-plastic. The ones used for Edward have a special coating that reduces friction and improves the longevity of the new knee. The manufacturer expects them to last 30 years, not the more standard 15.