

# M.D. NEWS

Special Feature

A man with dark hair and a goatee, wearing blue scrubs over a white shirt and a gold chain, stands with his arms crossed in an office setting. A framed certificate is visible on the wall behind him.

**‘Custom Fit’ Total Knee Replacement — Less Pain and Faster Healing for Patients**

## Dr. Sacheen Mehta is an orthopaedic surgeon at Richardson Regional Medical Center and Baylor Regional Medical Center at Plano. He is one of the first surgeons in the Dallas/Fort Worth area to perform a groundbreaking technique called the OtisKnee.


Until recently, 68-year-old Garland resident Patsy Dillon suffered from constant knee pain. “Years of standing on a hard concrete floor really took a toll on my knees,” Dillon said. “I was bone on bone for many of those years.” Joint damage caused by osteoarthritis, compounded with an auto accident and years of job-related knee stress sidelined this active adult. Dillon said the pain was so intense that it forced her into an early retirement from retail sales.

That is when Dillon’s internist referred her to Sacheen Mehta, M.D. Dr. Mehta is an orthopaedic surgeon at Richardson Regional Medical Center and Baylor Regional Medical Center at Plano. He is one of the first surgeons in the Dallas/Fort Worth area to perform a groundbreaking technique called the OtisKnee.

The OtisKnee uses a “custom-fit” knee implant and restores the damaged joint to its prearthritic state. The OtisKnee system allows Dr. Mehta to fine tune the size and placement of the implant to each individual’s anatomy. “Based on the results so far, this is the biggest advancement in joint replacement I’ve seen in years,” said Dr. Mehta.

“The OtisKnee replacement is unlike many one-size-fits-all traditional surgeries,” said Dr. Mehta. “Since every patient is different and the custom fit of the OtisKnee accounts for these variables, some additional presurgical planning is required.” But, according to Dr. Mehta, “The results are impressive.”

The OtisKnee Custom Fit Total Knee replacement procedure starts with an MRI three or four weeks before the planned surgery. This MRI precisely details the knee joint, providing data so the computer can generate a 3-D image of the damage and then project how to return it to its normal nonarthritic state.



Custom cutting guides are created to assist in the placement of very precise bone cuts that are specific to the surgical requirement of the patient’s new implant.

The American Academy of Orthopaedic Surgeons show that about 300,000 knee replacements are performed each year in the United States. Currently, more than 7,000 OtisKnee procedures have been completed by over 400 U.S. surgeons since its limited launch in June of 2007. Dr. Mehta is one of only two doctors in the DFW market currently using OtisKnee.

Next, custom cutting guides created from the precision 3-D image assist in the placement of very precise bone cuts specific to the surgical requirement of the patient's new implant and eliminating the need for any exterior alignment devices. Cutting less bone and sparing ligaments preserves a more "natural"-feeling knee based on the patient's normal knee function. "Prior to the availability of this technology, surgeons relied on experience and intra-operative judgment to correctly size and place the implant," said Dr. Mehta.

Since the cutting guides and specified implants are preplanned prior to surgery, Dr. Mehta can work

**T**he OtisKnee custom fit total knee replacement procedure starts with an MRI four weeks before the planned surgery. This MRI precisely details the knee joint, providing data so the computer can generate a 3-D image of the damaged knee joint and then return it to its normal nonarthritic state.

Sacheen Mehta, M.D., graduated from the University of Missouri, Kansas City School of Medicine and served his residency and internship at Ochsner Clinic Foundation in New Orleans. His fellowship was at Cincinnati Sportsmedicine and Orthopaedic Center in Cincinnati, OH. He is married and has three children.

**"These cutting guides show me exactly where to make bone cuts so that the knee placement is customized for each patient." — Dr. Mehta**



**I** feel great! It was nothing compared to what I thought it would be.

— Patsy Dillon

accurately and quickly during surgery. “The cutting guides show me exactly where to make bone cuts so that the knee placement is customized for each patient,” said Dr. Mehta. “This means a smaller incision, less soft tissue disruption and less blood loss during surgery, further reducing the patient’s post-op recovery.”

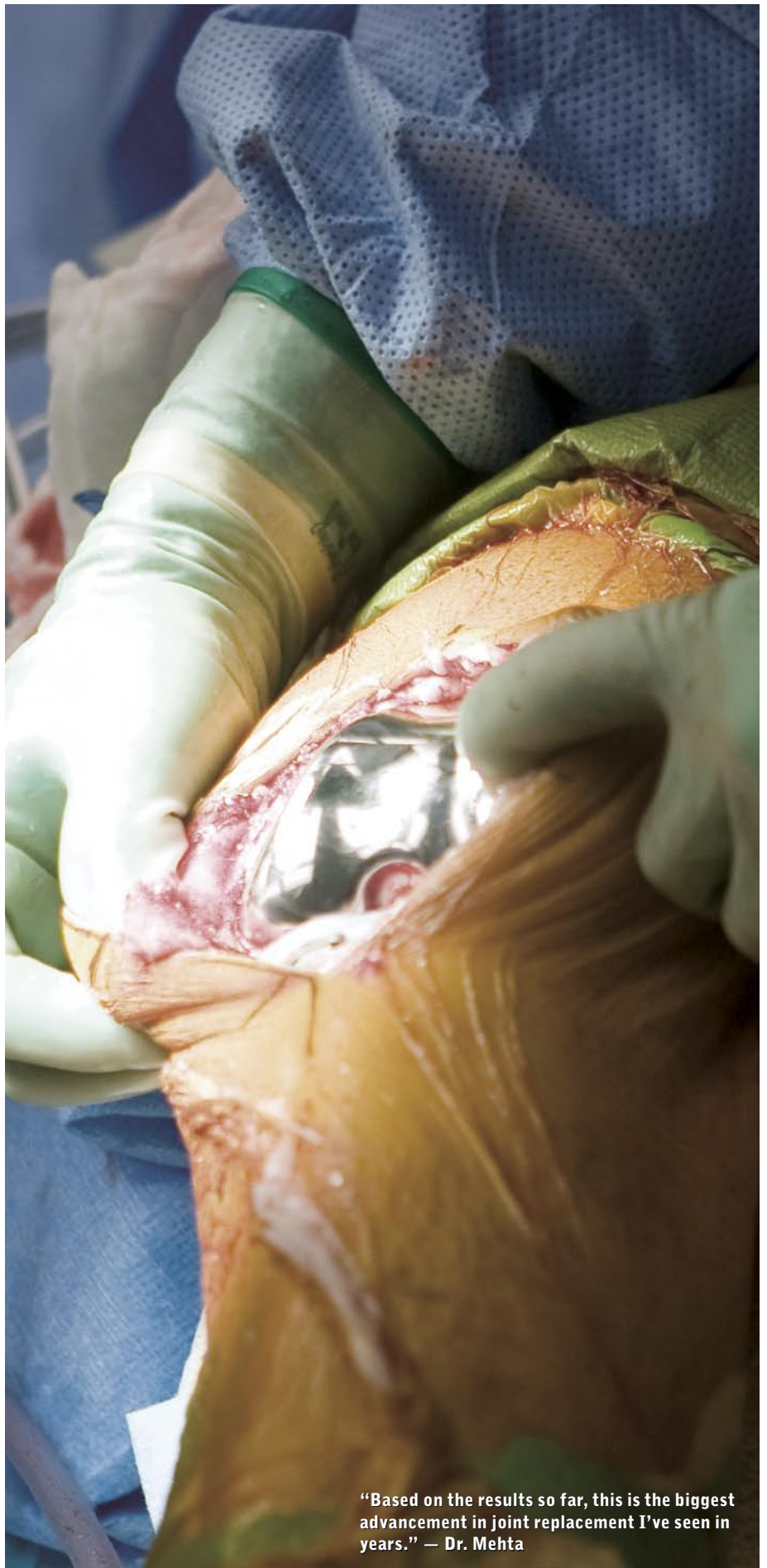
Surgery time has also reduced from 70 minutes to about 40 minutes. That means less time under anesthesia for the patient. Even more remarkable is that the patients are recovering twice as fast as before. This means shorter hospital stays, less physical therapy and a quicker return to normal routines than with traditional knee replacement surgery.

Dillon only stayed in the hospital for three days.

“I was able to walk 200 feet the next day and 1,700 feet the second day,” said Dillon. “Dr. Mehta sent me home from the hospital a day early since I was doing so well.” Now, almost a year later, she is walking her dog and climbing stairs pain free. “I feel great! It [the surgery] was nothing compared to what I thought it would be,” Dillon said. “I lead an exercise class for some of my neighbors several times a week. I stay pretty active now.”

*Dr. Satchen Mehta’s office is located at 1120 W. Campbell Road, Suite 109 in Richardson. His office number is (214) 575-2663. His website is <http://orthodoc.aaos.org/SportsMedicine/>.*

*For more information on the OtisKnee, visit [www.otismed.com](http://www.otismed.com). ■*



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