

# Keeping You on Your Feet

## With Innovative Knee and Ankle Replacements

Knee or ankle arthritis can make it harder to work, play sports and enjoy an active lifestyle. But there's no need to retire to the couch or recliner. Innovations in knee and ankle replacements offer better pain relief, a faster recovery and more natural movement to keep patients on their feet.

**B**enefits of knee replacement include high patient satisfaction, improved function and even improved overall health, according to several studies, says Todd O. Davis, general manager and vice president, Global Knees, for Biomet Orthopedics. One study analyzing 134,458 osteoarthritic patients showed that patients who underwent a total knee replacement had a mortality risk about one-half that of patients who did not have the joint replaced, Davis says.

"We have long believed that total joint replacement generates health benefits beyond the direct treatment of osteoarthritis," Davis says.



### Partial Knee Replacements Offer More Natural Movement

Improvements in partial knee replacements mean many patients can now get relief from arthritis pain without undergoing the more-involved total knee replacement. "While the study did not look specifically at partial knee replacement, the results highlight the potential benefits of timely treatment for osteoarthritis of the knees," Davis says.

Studies show that 30% to 65% of patients receiving total knee replacements may be candidates for partial knee replacements instead, he says.

Partial knee replacements offer numerous benefits for those patients, according to Davis. Biomet's Oxford® Partial Knee removes 75% less bone and cartilage, is less painful, requires shorter hospital stays, enables a faster recovery and provides more natural movement compared to a total knee replacement, Davis says.

The Oxford® is the only partial knee with an artificial meniscal bearing designed to glide freely through the knee's range of motion—providing a more natural-feeling and -moving knee, according to Biomet. Results of a multicenter study showed that at a minimum of one year post-operation, patients with an Oxford® Partial Knee were 1.8 times more likely to report their knee felt normal and 2.7 times more likely to be satisfied with their ability to perform activities of daily living, Davis says. And if you never thought warranties would be offered with partial knee replacements, think again: Any Oxford® Partial Knee implanted in the United States on or after April 29, 2013, is covered by the industry's only lifetime warranty.

Because a partial knee replacement preserves the anterior cruciate ligament (ACL), the knee moves more naturally, Davis explains. Since the surgery is less invasive than a total knee replacement, some patients leave the hospital as soon as the day after surgery. Some Oxford® Partial Knee replacements are even done in an outpatient surgery setting, he adds.

The Oxford® Partial Knee replacement is intended for patients who have arthritis or avascular necrosis (bone loss) in the medial (center) portion of the knee with no active infections or ligament deficiency, Davis says. The Oxford® Partial Knee was originally developed more than 35 years ago in Oxford, U.K. Since then, continuous improvements have been made to both the device and the instruments that allow the surgeon to implant it, he says.

According to Davis, the Oxford® Partial Knee has been shown to have a 91% survival rate of 20 years. ■

Only an orthopedic surgeon can tell you if you're a candidate for joint replacement surgery and which implant is appropriate. Potential risks of joint replacement include, but are not limited to, loosening, dislocation, fracture, wear, and infection, any of which can require additional surgery. If you have questions regarding joint replacement or the Oxford® Partial Knee, please speak with an orthopedic surgeon and see the full patient risk information on [www.Biomet.com](http://www.Biomet.com).



To find an Oxford®-trained surgeon in your area, visit [www.oxfordknee.com](http://www.oxfordknee.com) or call 800-390-5067.

# Total Ankle Replacement Offers Pain Relief and Better Movement

Arthritis in the ankles is less common than arthritis in the knees, but the pain and loss of function is just as debilitating to quality of life, says Dr. James W. Brodsky, Clinical Professor of Orthopaedic Surgery at UT Southwestern and Director of the Foot and Ankle Surgery Fellowship at Baylor University Medical Center in Dallas. The good news is that people living with ankle arthritis now have more options for pain relief and improved mobility.

In comparison to the more traditional treatment of ankle fusion, a total ankle replacement offers pain relief and a more naturally functioning ankle, says Dr. James A. Nunley, Chairman Emeritus of Orthopaedic Surgery and Director of Foot and Ankle Surgery at Duke University Medical Center. As the FDA approves more prosthetic ankles, the number of total ankle replacements is growing significantly. In 2011, the number of total ankle replacements in the U.S. reached 3,320, up from 870 in 2006, according to the American Academy of Orthopaedic Surgeons.

“Total ankle replacement provides equivalent pain relief but is superior to ankle fusion because it provides better function,” Nunley says.

One of Nunley’s patients, a fellow physician, had ankle fusion years ago on one ankle and then the FDA-approved STAR™ (Scandinavian Total Ankle Replacement), manufactured by Small Bone Innovations, last year. “There is a dramatic difference,” Nunley says. “The pain is better. The function is better. Overall, stride length, speed of walking and agility of walking are superior compared to ankle fusion.”

STAR has been used since 1987 in Europe. It was first used in the U.S. in 1998 as a custom implant, and the FDA approved it in 2009 after a nine-year study, Brodsky reports. STAR is the most studied total ankle replacement in use, Nunley says.

STAR also offers advances compared to other prosthetic ankles. It is the only three-piece prosthetic ankle in the U.S., and the only one the FDA has approved for implantation without using bone cement, Brodsky says.

The critical third piece is a mobile, high-density polyethylene bearing between the two metallic surfaces, Brodsky says. Because the bearing is not affixed to either metal piece, it has greater freedom of motion to slide and rotate in addition to providing the hinge-like motion of the ankle joint. The mobile bearing also makes it easier for the surgeon to align the ankle correctly, Nunley adds.

Instead of using bone cement, the surgeon presses the prosthetic ankle directly into the bone. That eliminates the worry of the cement’s loosening and preserves more of the patient’s bone in case additional surgery is



STAR™ ankle  
(Scandinavian Total Ankle Replacement)

required later, notes Brodsky.

Before getting his STAR ankles in 2004 and 2011, engineer and construction manager Glenn A. Warren was forced to use crutches and live with pain ranking a 10 on a scale of one to 10—not an easy task on construction sites. “Following ankle replacement and a period of recovery and physical therapy, I have been able to resume my normal activities,” says Warren, mediator of an ankle replacement support group.

To extend the life of the prosthetic ankle, patients do have to focus on low-impact sports such as golf, hiking, biking and light doubles tennis, Brodsky and Nunley say.

“I have self-restricted high-impact activities and sports, but I am able to hike, swim and, most important, participate in activities with my family and work,” Warren says. “As an engineer, I spent considerable time evaluating the alternatives. I consider the design of the STAR to be durable and functionally a close analog to the natural joint.” ■

Important safety information: Ankle replacement is not for everyone. There are potential risks. Recovery takes time and success depends on factors like age, weight and activity level. Only a trained foot and ankle surgeon can tell if ankle replacement is right for you.

**SBI**  
SMALL BONE INNOVATIONS, INC.

Learn more at [staranklereplacement.com](http://staranklereplacement.com)