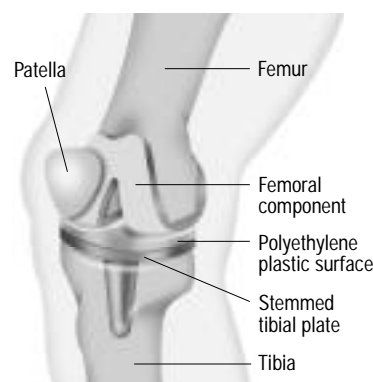


# Total Joint Replacement Surgery in the 21st Century

This ad series presents current, reliable information on the latest advances in total joint replacement, to help guide patients in making important healthcare decisions. It is provided by Dr. Peter M. Bonutti, MD, FACS, FAANA.

## New "Limited-Incision" Total Knee Replacement Offers Important Advantages

Total joint replacement was one of the most significant advances in orthopaedic surgery in the 20th Century, and enabled millions of patients suffering from severe joint pain and stiffness to return to active and rewarding lives. In total knee replacement (TKR), diseased or damaged bone and cartilage in the knee joint is removed and replaced with an artificial joint called a prosthesis.



Performed since the 1960s, TKR is one of the safest and most successful types of surgery. Now, a breakthrough surgical technique has been developed for TKR in Effingham, IL, at The Bonutti Clinic – the L-I Approach or Limited-Incision Total Knee Replacement. This procedure adapts the latest advances in minimally invasive arthroscopic surgery and instrumentation to TKR. I want to stress that limited-incision TKR is a total knee replacement (not a partial or unicompartmental knee replacement), and it promises to make TKR in the 21st Century safer and more effective than ever.

### Joints – The Body's Natural Hinges

Joints are connecting points in your body where two separate bones meet, and they enable your skeleton to rotate or swivel. The ends of the bones are connected by thick bands of tissue called ligaments. For example, the knee joint is formed by the upper end of the shinbone (or tibia) and the lower end of the thighbone (or femur). *Cartilage*, a smooth, plastic-like tissue, coats the ends of some bones and lines the joint sockets to prevent the bones from rubbing against each other. A delicate membrane called the *synovium* produces a lubricant to reduce friction and wear in the joint. Normally, all parts of the joint work together, and the joint moves easily without pain.

### Conventional TKR

In total knee replacement, the prosthesis is composed of metal, to replace diseased bone, and of polyethylene (a durable, plastic articulating surface), to replace diseased cartilage. One part is attached to the end of the thighbone where diseased bone has been removed, and another is anchored to the shinbone. The standard TKR procedure takes about 2 hours. An 8- to 12-inch incision is made in the knee area, cutting through muscles and tendons and pushing them aside to expose the joint. After the prosthesis is in place, the muscles and tendons are reconstructed and the incision is closed. Frequently, it takes several months to recover from the large incision and muscle disruption.

### Advanced Limited-Incision TKR

The L-I Approach total knee replacement procedure utilizes a different leg position and streamlined instruments and techniques that I have developed and patented. The same high-quality, time-proven TKR prosthesis components are used and are held in place with cement. The actual removal and replacement of the damaged joint is also similar, but the surgical incision is *only 3 to 4 inches long*. The incision is actually *smaller than the joint implant* itself. In addition, the surgeon does not have to disturb as many muscles and tendons, for a more natural reconstruction and a quicker rehabilitation.



Pattern of surgical staples in this x-ray shows that incision is smaller than knee implant

Our advanced, minimally invasive L-I Approach total knee replacement procedure takes only 1 hour and results in many advantages for the patient, including:

- Shorter time in surgery
- Decreased tissue and muscle trauma
- Less blood loss
- Fewer complications
- Quicker time to recovery
- Reduced risk of infection
- Less postoperative pain
- Far less scarring
- Faster, easier rehabilitation
- Better motion

### World Renowned TKR Expert Endorsed Our New Procedure

Dr. Kenneth A. Krackow, a board-certified orthopaedic surgeon and Chief of Orthopaedics at Buffalo General Hospital in Buffalo, NY, recently visited our clinic to study the L-I Approach total knee replacement procedure. Dr. Krackow is respected worldwide for his research and development of dozens of surgical techniques, devices, and instruments that have advanced TKR surgery. Dr. Krackow was intrigued by what he saw during the procedure, and he took written and verbal notes as well as digital photos of the technique. He recognized the benefits to patients of this minimally invasive TKR procedure and plans to use it in his own practice.



Dr. Krackow (left) observes Dr. Bonutti (center) perform L-I Approach™ TKR procedure

**The Bonutti Clinic in Effingham, IL, is the first and one of the only facilities in the world where the L-I Approach total knee replacement procedure is now taught and performed.**

**To reach Dr. Peter Bonutti, please call: (217) 342-3400**



**Peter M. Bonutti, MD, FACS, FAANA**  
Specializing in Joint Replacement (including limited-incision TKR); Surgery of the Hip, Knee & Shoulder; Arthroscopic Surgery; and Sports Medicine

### Meet Dr. Bonutti

Dr. Peter M. Bonutti, a board-certified orthopaedic surgeon and founder of the Bonutti Clinic in Effingham, IL, has dedicated his career to advancing orthopaedic technology and techniques. He pioneered limited-incision TKR in Effingham, developing and patenting his advanced techniques and streamlined instruments. He is now beginning to teach other surgeons this procedure so that more patients can benefit from it.

An award-winning and widely published surgeon, scholar, lecturer, researcher, and inventor, Dr. Bonutti holds more than 110 U.S. patents on medical devices and procedures. Some of his patents are for procedures and instrumentation that he has developed to improve precision in minimally invasive total hip and knee replacement (L-I Approach). In fact, one of the world's leading joint replacement manufacturers consulted with Dr. Bonutti when designing and developing its advanced joint prostheses and instruments.

Dr. Bonutti is a Fellow of the American College of Surgeons, the Arthroscopy Association of North America, and the American Academy of Orthopaedic Surgeons.

He is also a Clinical Associate Professor at the University of Arkansas and Team Orthopaedist for Eastern Illinois University's athletic teams.

Dr. Bonutti prides himself on providing the highest quality and highly personal care to each of his patients, who come to his clinic from both the United States and abroad.