

# Total Knee Replacement Implant

Total knee replacement candidates never had a choice before—it was either live with pain or have surgery with an implant that compromised healthy ligaments. Not anymore. Today, when faced with the need for a total knee replacement, patients have a new option: the ligament-preserving total knee replacement implant.

The knee is comprised of the lower end of the thighbone (femur), the upper end of the shinbone (tibia), and the kneecap (patella). The ends where these three bones meet are covered in cartilage to protect the surface and enable them to move easily against each other, while the synovial membrane releases fluid that lubricates the cartilage, reducing friction. Between the femur and the tibia lies the menisci which act as shock absorbers and cushion the joint. And large ligaments (posterior and anterior cruciate) run diagonally in the center of the knee to hold the femur and tibia together and provide rotational stability to the knee.

In a normal, healthy knee, all of these components work in harmony. But when disease or injury disrupts this harmony, the result is pain, muscle weakness and reduced function. It may be hard to perform simple activities, such as walking or climbing stairs, and there may even be pain while sitting or lying down. When nonsurgical treatments like medications, therapy and walking supports no longer ease the pain, a total knee replacement may be necessary to relieve pain and resume normal activities.

During total knee replacement surgery, the orthopedic surgeon removes damaged cartilage surfaces at the ends of the femur and tibia, along with a small amount of underlying bone. The removed cartilage and bones are replaced with artificial implants that recreate the surface of the three bones. Ligaments, including the anterior cruciate ligament (ACL) are removed and a medical-grade plastic spacer is inserted between the implants to create a smooth gliding surface. The implants are designed to restore function and eliminate as much discomfort as possible, but with the removal of the ligaments, stability and control are compromised.

The ligaments of the knee, and particularly the ACL, play a crucial role in knee movement and stability. When professional athletes damage their ACL, they get it repaired to get them back in the game. Most total knee replacements require surgeons to remove the ACL, even when it's still healthy, thus patients must rely on implant design to provide knee stability. But why remove healthy ligaments if you don't have to?

The new ligament-preserving total knee replacement implant is designed to work with a person's natural anatomy. Patients can lose the pain and discomfort resulting from their damaged knee while retaining their healthy ligaments, so they can continue to enjoy their active Southwest Florida lifestyle.

Candidates for the ligament-preserving implant include individuals with osteoarthritis, rheumatoid arthritis, traumatic arthritis, correction of deformity, and revision of a previous joint replacement procedure. If you're considering total knee replacement, ask yourself one important question: Why have your ACL removed if you don't have to? Keep your healthy ligaments and get connected to a whole new life with the ligament-preserving total knee replacement implant.