EVOLUTION®
MEDIAL-PIVOT KNEE SYSTEM

INNOVATION THAT LASTS

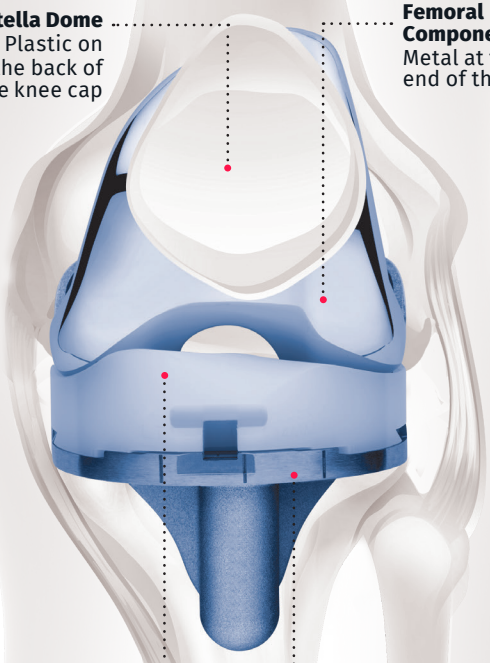
MicroPort Orthopedics

KNEE PAIN?

Osteoarthritis is a relatively common condition that affects nearly 350 million people worldwide.[1] With this condition, the cartilage in the joint breaks down and thins, causing the bones in the joint to rub together. Osteoarthritis is especially common in the knee joint as it carries most of the body's weight. Symptoms include pain, swelling, and changes in appearance and function of the joint — which can contribute to loss of motion.

If other treatments such as medication, therapy, or injections have proven ineffective, a total knee replacement may be the best way to get your life back.

ARTIFICIAL KNEE



Patella Dome
Plastic on the back of the knee cap

Femoral Component
Metal at the end of thigh

Tibial Insert
Plastic replaces menisci

Tibial Tray
Metal on top of shin

WHY TOTAL KNEE REPLACEMENT?

Your knee joint is protected by cartilage that covers the end of the thigh bone (femur), top of the shin bone (tibia), and the knee cap (patella), helping the components to move smoothly against each other. However, when this cartilage wears down and the bones begin to rub together, it can cause severe knee pain that reduces the function and stability of your knee.

The goal of total knee replacement surgery is to replace this damaged bone and cartilage with smooth metal and high-grade polyethylene.

These new surfaces are designed to replicate the function and feeling of a healthy knee while also preventing the pain caused by damaged bones rubbing together. Total knee replacement is one of the most successful treatments to restore knee function and stop pain.

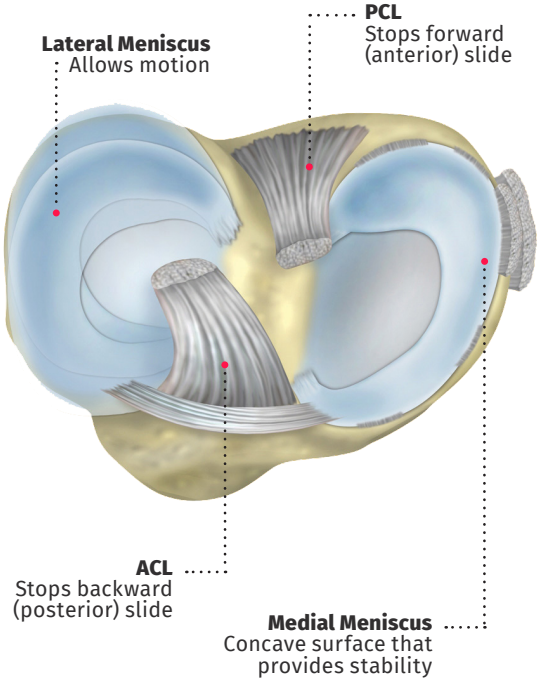
Full Function, Faster®

At MicroPort Orthopedics, we are never standing still. We know that knee implants are constantly being improved just as medical procedures themselves evolve with each passing day. We not only embrace this constant advance in medicine, we celebrate it in our work. With a focus on innovation, combined with our demonstrated capability to deliver the resources of an industry leader, MicroPort Orthopedics is helping patients worldwide achieve full function faster each and every day.

PROBLEM WITH TRADITIONAL DESIGNS

A normal knee pivots on its inner (medial) side. When the knee bends, the outer (lateral) side rolls back, while the medial side pivots in one place.

Traditional implants only swing back and forth and also are shown to decrease stability by sliding forward during everyday activities.[2-3]



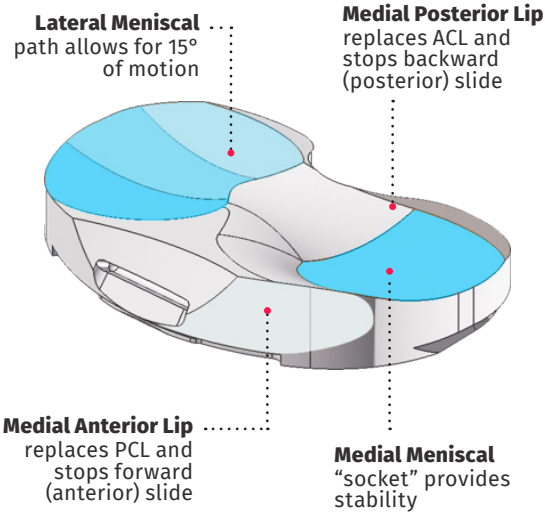
EVOLUTION®
MEDIAL-PIVOT KNEE SYSTEM

The MicroPort Evolution® Medial-Pivot Knee System was designed to address the limitations of traditional knee replacements, providing patients with an implant that moves like a healthy knee..

MEDIAL-PIVOT DESIGN PRINCIPLES

The Evolution® Medial-Pivot Knee's unique design replicates the simple pivoting motion found in a natural knee, reproducing the bending, rotating, and twisting of a healthy knee.

This ball-in-socket design maximizes stability throughout range of motion, allowing you to walk down stairs and complete other daily activities with complete trust and confidence in your knee replacement.



TRUTHS ABOUT THE MEDIAL-PIVOT KNEE SYSTEM

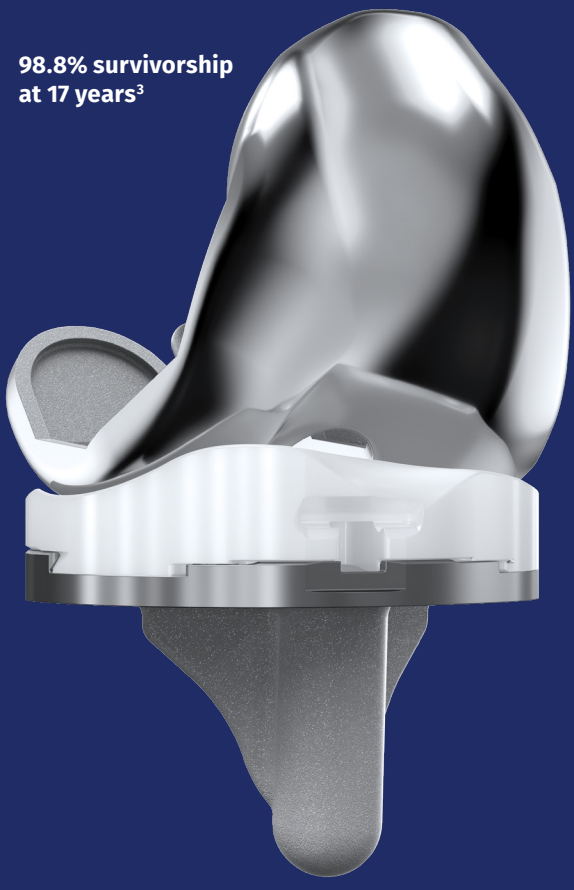
Enhanced upper leg muscle (quadriceps) efficiency

Maximizes stability for better activity like going up and down stairs or hiking

Patients are less aware of their knee replacement vs traditional designs[9]

Replicates natural knee motion[2]

98.8% survivorship at 17 years[3]



95% *PATIENT SATISFACTION AT 17 YEARS*[8]

VS 80% PATIENT SATISFACTION WITH TRADITIONAL KNEE DESIGNS

SATISFACTION WITH THE MEDIAL-PIVOT KNEE[8]

The Medial-Pivot Knee System has demonstrated higher patient preference when compared to other knee replacement designs on the market, including Posterior Stabilized (PS), Cruciate Retaining (CR), and Mobile-Bearing (MB).[6]

Individual results and activity levels after surgery vary and depend on many factors including age, weight and prior activity level. There are risks and recovery times associated with surgery and there are certain individuals who should not undergo surgery.

VISIT US ONLINE TO LEARN MORE

MicroPort Orthopedics has decades of experience producing revolutionary products that improve the lives of patients like you.

To learn more about the Evolution® Medial-Pivot Knee System visit us at **microportortho.com**, where you can see more patient stories, browse our products, and also find an Evolution® Medial-Pivot Knee surgeon near you.

FREQUENTLY ASKED QUESTIONS

WHEN IS KNEE SURGERY APPROPRIATE?

Only you and your doctor can determine the correct course of treatment for you and your condition. Surgery should be considered when knee pain significantly impacts the activity and quality of your life and other alternatives have proven ineffective.

WHAT DIFFERENTIATES THE MICROPORT MEDIAL-PIVOT DESIGN FROM OTHER IMPLANT DESIGNS?

Many total knee implants on the market are based on a philosophy that the knee moves like a hinge, swinging only back and forth. But, of course, the knee does not simply swing only back and forth; it also pivots and rotates. The Evolution® Medial-Pivot Knee was designed to more closely mimic the natural knee's motion.

HOW LONG DOES A KNEE IMPLANT LAST?

Unfortunately, there is no easy answer to this question other than "it depends." Other factors that may increase the risk of device failure include weight, activity level, and occupation. Knee implants may need to be replaced at some point in the future.

IMPORTANT INFORMATION AND PRECAUTIONS

Advances in knee implant replacement have given surgeons the ability to assist patients in restoring mobility, correcting deformity and reducing pain. While the implants used are largely successful in attaining these goals, it must be recognized that they are manufactured from metal and plastic. Knee replacement systems cannot be expected to withstand activity levels and loads as would normal healthy bone.

TO DETERMINE IF YOU ARE A CANDIDATE FOR KNEE REPLACEMENT:

Discuss your condition with your surgeon. MicroPort Orthopedics total knee replacements are intended to treat severe pain or significant disability resulting from one or more of the following conditions:

- Deterioration of the knee joint cartilage (osteoarthritis)
- Inflammation in the lining of the knee joint (rheumatoid arthritis)
- Physical injury to the knee joint resulting in arthritis (traumatic arthritis)
- Moderate knock-knees (valgus), bowleggedness (varus), or bending (flexion) deformities
- Correction of problems caused by previously failed surgeries

KNEE REPLACEMENT IS NOT APPROPRIATE IF:

- You have an infection
- You do not have enough bone or the bone is not strong enough to support the prosthesis
- You have known metal/plastic allergies
- Your knee is severely unstable, possibly due to unstable knee ligaments
- You have one of several conditions known as neuromuscular disease (cases where there is inadequate neuromuscular status)

The indications and contraindications herein are not intended to be an exhaustive list. Additional considerations that may impact the outcome include the patient's weight, occupation, or level of activity. Consult with your physician to determine the correct treatment for you.

For more information, please visit **www.microportortho.com**

References

1. Arthritis and Total Knee Arthroplasty: Knee Implant Procedures http://seniors-health-medicare.suite101.com/article.cfm/arthritis_and_total_knee_arthroplasty#ixzz0gHPzocel Mark McBride, MD ; Prakash Thulasimani. Nov 3, 2009. Accessed: Feb. 22, 2010.
2. Dennis DA, Komistek RD, Mahfouz MR, Haas BD, Stiehl JB. Multicenter determination of in vivo kinematics after total knee arthroplasty. Clin Orthop Relat Res. 2003
3. Schmidt R, Komistek RD, Blaha JD, Penenberg BL, Maloney WJ. Fluoroscopic analyses of cruciate-retaining and medial pivot knee implants. Nov;(416):37-57.
4. Firestone T. Surgical management of symptomatic instability following failed primary total knee replacement. J Bone Joint Surg; 2006, 83(4): 80-4
5. Blaha D. Kinematics of the knee and total knee prosthesis design. J Bone Joint Surg Br 2002 Vol. 84-Bno. SUPP I 75-i-76
6. Pritchett JW. Patients prefer a bicruciate-retaining or the medial pivot total knee prosthesis. J Arthroplasty. 2011; 26(2): 224-8.
7. Karachalios Th, Varitimidis S, Bargiotas K, Hantes M, Roidis N, Malizos K.N. An 11- to 15-year clinical outcome study of the Advance Medial Pivot total knee arthroplasty. Bone Joint J 2016;98-B:1050-5.
8. Macheras, G.A.; Galanakos, S.P.; Leptsos, P.; Anastasopoulos, P.P.; Papadakis, S. A. A long term clinical outcome of the Medial Pivot Knee Arthroplasty System. The Knee 24 (2017): 447-453.
9. Bianchi, et all. “Medial pivot vs posterior stabilized total knee arthroplasty designs: a gait analysis study”. Med Glas (Zenica), 2021 Feb 1;18(1)

WHAT SURGEONS ARE SAYING ABOUT MICROPORT ORTHOPEDICS' MEDIAL-PIVOT KNEE SYSTEM

"For me, the 25 year anniversary for the Medial-Pivot Knee is basically a validation that this new technology is actually effective, and has longevity. It's proven itself over the 25 years."

– Dr. David Backstein, Toronto, ON*

"Why is this design better than another design? The reason why I think this design is better is because I think it truly reproduces the normal kinematics of a knee, with having the stability of the Medial-Pivot design."

– Dr. Andrew Ajluni, Detroit, MI*

"For patients, the return of range of motion is much faster, they get much better motion, they get it quicker. They're out of the hospital sooner, their pain is better. And they seem to get back to the activities that they want to do at a much quicker rate."

– Dr. Joseph Assini, Englewood, CO*

*These surgeons are paid consultants for MicroPort Orthopedics. The opinions expressed are theirs alone and do not necessarily reflect the opinions of MicroPort Orthopedics Inc.

MicroPort Orthopedics

MicroPort Orthopedics Inc.
5677 Airline Road
Arlington, TN USA 38002
866 872 0211

microportortho.com

The CE-Marking of Conformity is applied per catalog number and appears on the outer package label, if applicable.