

eMP™

Evolution®
Medial-Pivot Knee System
The ACL-PCL Substituting Knee

Key Aspects





MicroPort's eMP™ Knee System

On average, nearly 20% of patients are unhappy with their total knee replacement. According to the literature, the leading causes of dissatisfaction are residual pain, functional issues, and early implant failure.¹ The eMP™ Knee System aims to answer these traditional implant limitations, by providing an implant that delivers...



Flexion Stability

Anatomic Motion

Wear-Limiting Design

Flexion Stability

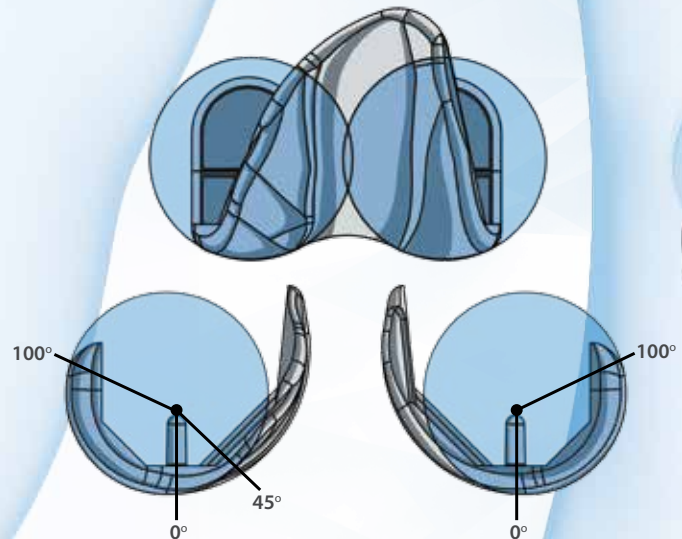
Patients desire a natural feeling implant with high postoperative satisfaction. Traditional knee replacements have been shown to exhibit anterior-posterior translation which decreases stability and causes early revisions.²⁻³ Through its design, the eMP™ Knee System has been formulated to maximize stability throughout all phases of flexion.

High Conformity

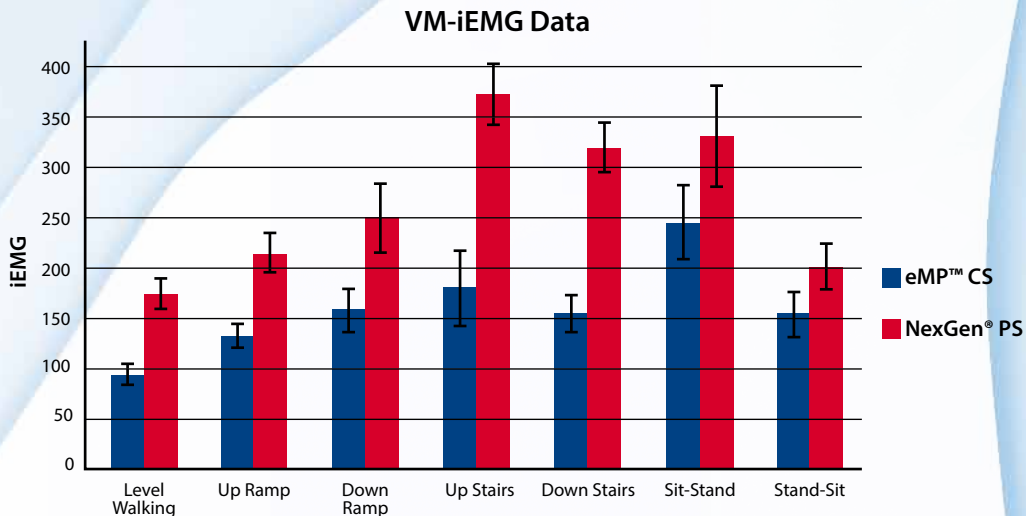


Medial section of the eMP™
Cruciate-Substituting Knee flexed at 30°

Constant Radius



Enhanced Quad Efficiency

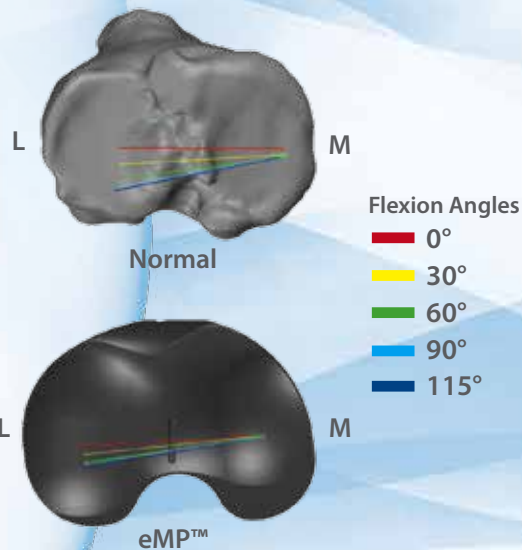


The eMP™ Knee System utilizes lower vastus medialis activation strength than the Zimmer® NexGen® PS Knee.⁸

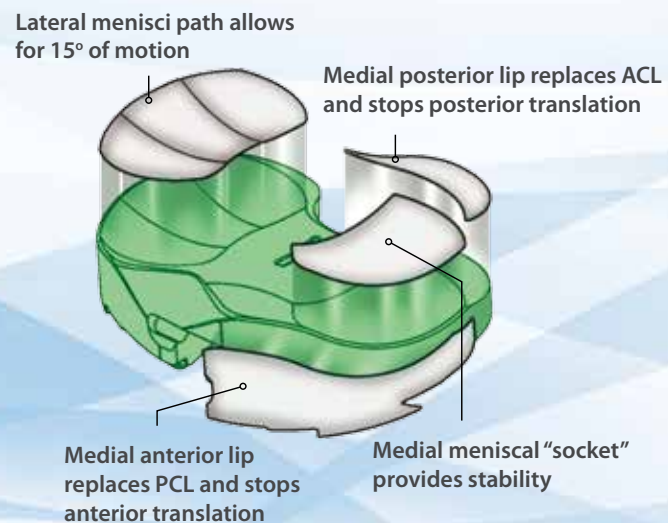
Anatomic Motion

With the demands of today, patients need an implant that feels normal and behaves naturally. Traditional knee replacements do not possess the design features similar to that of the normal knee, and thus will not behave like the normal knee. The eMP™ Knee System features a global sizing profile and design elements that drive natural function and normal feeling.

Natural Function



Normal Feeling



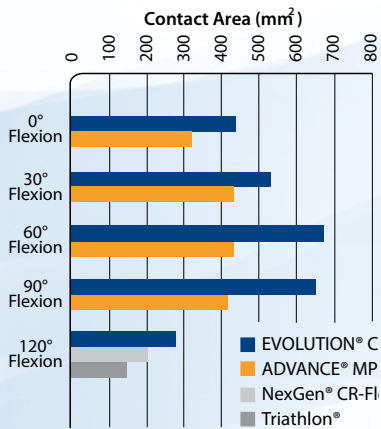
Global Sizing Profile



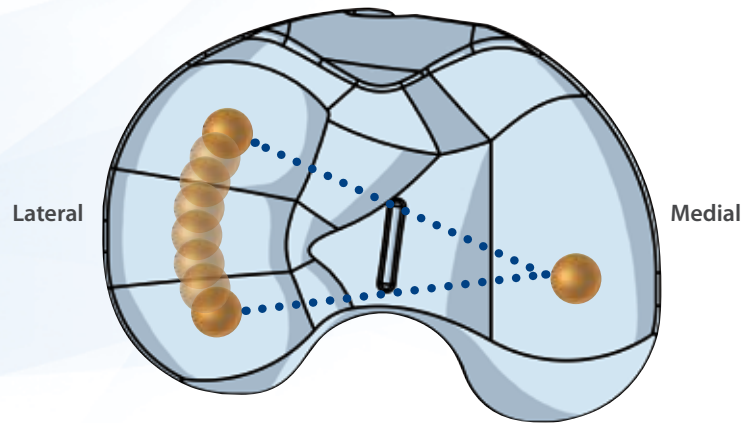
Wear-Limiting Design

If contact area is maximized, compressive and shear forces are minimized resulting in longer implant survivorship.¹ By incorporating high tibiofemoral conformity, contact area is maximized and contact stresses are minimized. The eMP™ Knee System provides high contact throughout range of motion (ROM) to minimize contact stresses.¹⁵⁻¹⁷

Minimized Contact Stresses

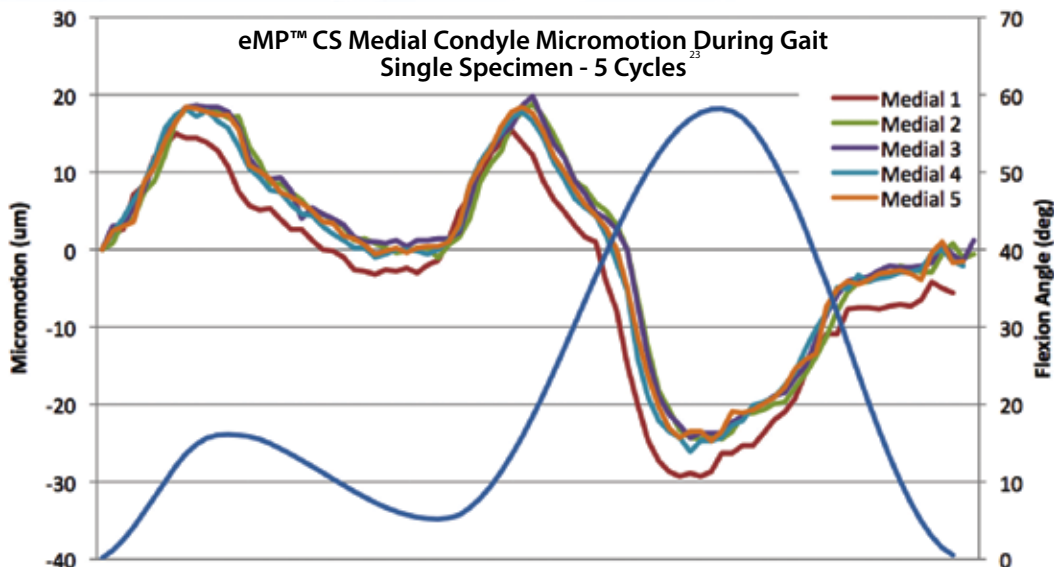


Repeatable Motion



The contact area for the eMP™ Knee System was found to be higher from 0° to 120° flexion when compared to published results from Stryker and Zimmer.¹⁸⁻¹⁹

Low Micromotion



The eMP™ Knee System has been shown to have 40% less micromotion than the Zimmer NexGen.²³

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