ARE PATIENTS COMPLETELY SATISFIED AFTER TOTAL KNEE ARTHROPLASTY? CAN TKA PATIENTS GO DANCING, GOLFING OR ASCEND AND DESCEND STAIRS WITH CONFIDENCE? ARE THEY ABLE TO FORGET THEIR TOTAL KNEE REPLACEMENT?

1 out of 4 patients are not satisfied with conventional Total Knee Arthroplasty

Patients expectations are not always met following TKA

A forgotten Hip is much more common than a forgotten Knee

Mid-flexion instability can compromise the outcome of traditional knee designs

Many PS knees are stable only after 70° - 80° of flexion

Anterior knee pain and swelling may be associated with instability.

STABILITY IN TKA IMPROVES PATIENT SATISFACTION

More stable knees are preferred by over 76% of patients:

- It feels more normal
- It is stronger on stairs
- Superior single-leg weight bearing
- It feels more stable (during flexion and overall)
- Fewer clunks, pops and clicks

GMK® SPHERE

Based on the studies on knee anatomy and kinematics performed by Prof. Michael Freeman and Prof. Vera Pinskirova, the GMK® Sphere is an innovative total knee implant designed to deliver maximum functional stability with the goal of increasing TKA patient satisfaction during activities of daily living and decreasing post-operative knee pain.

RESPONSIBLE INNOVATION

Medacta® is committed to providing innovative and safe solutions for patients with an evidence-based approach. GMK® Sphere was tested over 3 years prior to launch through an intensive evaluation programme including in vitro and in vivo trials and laboratory tests.

University of Nebraska Medical Center - TKA Wear Test

Endolab GmbH - TKA Wear Test

GMK® Sphere wear results compared with the mean value of all fixed bearing TKA implants tested by Endolab

KEY FEATURES

STABILITY

GMK® Sphere features a fully congruent medial compartment providing:
- High stability throughout ROM
- No paradoxical motion between femur and tibia
- No implant-related "mid-flexion" instability

NATURAL KINEMATICS

GMK® Sphere can replicate the natural kinematics of the healthy knee:
- Stability throughout the ROM in the medial compartment
- Freedom of movement in lateral compartment
- Permits patient-appropriate motion rather than imposing an average

ANATOMICAL FIT

Extensive anthropometric research on a unique, global database containing more than 15,000 CT and MRI scans of knees validated the:
- Range of 13 femoral profiles with 2 mm increments which best fit a broad spectrum of anatomic profiles
- Anatomically shaped tibial baseplate
- Range of inserts with 1 mm increments to reproduce natural ligament balance and improve stability throughout ROM

PATELLAR TRACKING DESIGNED TO ADDRESS ANTERIOR KNEE PAIN

GMK® Sphere replicates natural lateralized patella tracking and reduces patello-femoral joint pressure:
- Trochlea groove lateralized by 2 mm to enable natural patella tracking
- Flattened medial trochlear wall prevents patella-femoral overstuffing minimizing retinacular tension
- Anatomic patellar implant with medialized dome increases contact surface, reduces stress on polyethylene and improves stability

MINIMIZED WEAR RATE

GMK® Sphere maximizes femorotibial contact area to minimize polyethylene wear.