

Total Knee System Product overview





Originality | Stability | History

Originally implanted in 1988, Rotaglide+ was the first total knee design to adopt a true mobile bearing philosophy. The implant features a rotating and translating tibial insert providing enhanced joint stability and minimal polyethylene wear.

The original and only true mobile bearing knee

Rotaglide+[™]

Originality

The first true mobile bearing design, Rotaglide+ features spherical posterior femoral condyles and highly conforming tibial inserts.

The insert mobility and high conformity allow the Rotaglide+ to maintain large contact areas throughout the range of motion, resulting in low volumetric wear rates and improved implant longevity.

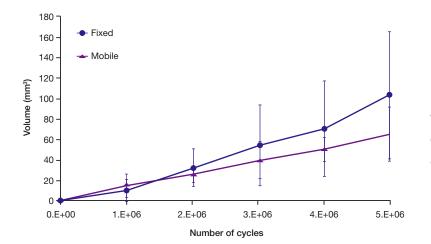


Figure 1. Mean cumulative volumetric wear with 95% confidence limits for the fixed and mobile bearing knees¹.

4 Corin

Inspired by motion

Recent kinematic studies have suggested that the natural femur may pivot medially or laterally during gait and non-ambulatory activities^{2,3}.

The symmetrical design of the Rotaglide+ insert allows up to 5mm translation and ±20° rotation, accommodating varying centres of rotation about both the medial and lateral femoral condyles.

Rotaglide bearing mobility allows selfalignment of the tibial insert in vivo which has been shown to reduce patellofemoral stresses⁴ and minimize anterior knee pain⁵.



Rotaglide+[™]

Stability

Featuring spherical posterior femoral condyles the Rotaglide+ allows for a single flexion-extension axis reducing mid-flexion instability and maintaining ligament isometry^{6,7}.

A posteriorly located centre of rotation lengthens the quadriceps moment arm, reducing quadriceps effort required post total knee arthroplasty and accelerating patient rehabilitation^{6,7}.



With the patient in mind

A 10° posterior slope built into the distal femoral and tibial implant design allows for proximal bone conservation.

The anatomic tibial slope directs forces through the tibial baseplate during heel-strike, minimising the risk of bearing dislocation.

10°



10°

Rotaglide+[™]

History

First implanted in 1988, the Rotaglide+ knee has shown excellent clinical survivorship of 94.37% at 18 years⁸.

Two decades of world leading innovation

8 Corin

An unparalleled success story

The bone conserving implant design is ideal for the young active patient:

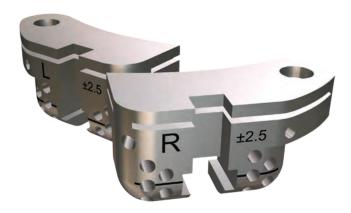
Rotaglide+ has shown an outstanding clinical survivorship of 96% in patients with an average age of 50 years⁹.





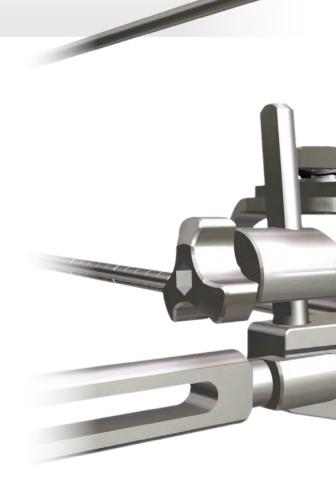
RTK+ Replicate Instrumentation

Optimised cutting block profiles allow easy visibility whilst minimising patella impingement and avoiding soft tissue damage.





Unrestrictive, guided resection allows for accurate and reliable bone cuts.



Accuracy | Simplicity | Flexibility

Driven twist pins and convergent pin-holes provide secure fixation for reproducible cuts with confidence.

Power pinning system and quick release guide allow rapid instrument positioning.

An easy anterior referencing approach prevents femoral notching.

References:

- 1. Data in file Corin Group, 2002.
- 2. Koo S, Andriacchi TP. The knee joint center of rotation is predominantly on the lateral side during normal walking. J Biomech 2008;41(6):1269-73.
- 3. Hill PF, Vedi V, Williams A, Iwaki H, Pinskerova V, Freeman MAR. Tibiofemoral movement 2: the loaded and unloaded living knee studied by MRI. J Bone Joint Surg [Br] 2000;82-B:1196-8.
- 4. Skwara A, Tibesku CO, Ostermeier S, Stukenborg-Colsman C, Fuchs-Winkelmann S. Differences in patellofemoral contact stresses between mobile-bearing and fixedbearing total knee arthroplasties: a dynamic in vitro measurement. Arch Orthop Trauma Surg 2008 Sep;30.
- 5. Breugem SJ, Sierevelt IN, Schafroth MU, Blankevoort L, Schaap GR, van Dijk CN. Less anterior knee pain with a mobile-bearing prosthesis compared with a fixed bearing prosthesis. Clin Orthop Relat Res 2008 Aug;466(8):1959-65.
- 6. Mahoney OM, McClung CD, dela Rosa MA, Schmalzried TP. The effect of total knee arthroplasty design on extensor mechanism function. J Arthroplasty 2002 Jun;17(4):416-21.
- 7. Wang H, Simpson KJ, Ferrara MS, Chamnongkich S, Kinsey T, Mahoney OM. Biomechanical differences exhibited during sit-to-stand between total knee arthroplasty designs of varying radii. J Arthroplasty 2006 Dec;21(8):1193-9.
- 8. Metsovitis MD. 10 to 18 year follow up of the Rotaglide mobile knee prosthesis. Data in file Corin Group, 2009.
- 9. Morgan M, Brooks S, Nelson RA. Total knee arthroplasty in young active patients using a highly congruent fully mobile prosthesis. J Arthroplasty 2007 Jun;22(4):525-530.

The Corinium Centre Cirencester, GL7 1YJ t: +44(0)1285 659 866 f: +44(0)1285 658 960 e: info@coringroup.com

www.coringroup.com





Printed on 9lives 80 which contains 80% total recycled fibre and is produced at a mill which holds the ISO 14001 for Environmental Management Systems. The pulp is bleached using Elemental Chlorine Free processes.



©2009 Corin P No. 1893 Rev.1 06/2009 ECR 8837 0088 Rotaglide is a registered trademark of Corin