✚ Evidence in focus

Smith+Nephew

New clinical evidence demonstrates excellent outcomes and survivorship of the JOURNEY◊ II Cruciate Retaining (CR) Knee System for TKA

Can asymmetry in total knee arthroplasty design lead to more normal-like post-operative kinematics? A multi-implant evaluation

Smith LA, LaCour MT, Cates HE, Komistek RD. *J Arthroplasty.* 2024;39(7):1699–1706.

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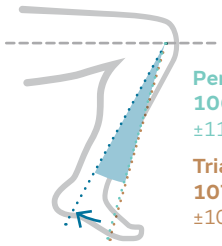
Single-surgeon, retrospective study comparing post-operative kinematics of three total knee replacements:

- Triathlon™ PCR (n=30) — no asymmetry
- Persona™ PCR (n=29) — some asymmetry*
- JOURNEY II CR (n=30) — most asymmetry†
- Normal knee (n=10; control)

Weight bearing deep knee bend under fluoroscopic surveillance ≥3 months after TKA

JOURNEY II CR had significantly greater range of motion than Persona™ PCR and Triathlon™ PCR



JOURNEY II CR
119.0°
±6.9°
(p<0.0001)

Persona™ PCR
106.9°
±11.2°

Triathlon™ PCR
107.8°
±10.6°

Range of motion in the normal knee controls was 139.0° ±13.8°; ±95% confidence interval reported

Kinematic patterns most like the normal knee

Compared with Persona™ PCR and Triathlon™ PCR and with increasing flexion, JOURNEY II CR resulted in:

- The most axial rotation
- The most posterior femoral rollback

Mid-term outcomes of a kinematically designed CR TKA

Katzman JL, Habibi AA, Cardillo C, Fernandez-Madrid I, Meftah M, Schwarzkopf R. *World J Orthop.* 2024;15(2):118–128.

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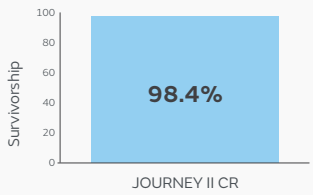
High mid-term survivorship with significantly improved KOOS JR and PROMIS scores

(at 6 months and 2 years follow up versus pre-op scores)

Multi-surgeon, retrospective study of JOURNEY II CR (n=255; mean follow up of 3.3 years [range, 2.2–6.6 years])



Significant improvements in **KOOS JR** and **PROMIS‡** scores
(at 6 months and 2 years follow up vs pre-op scores; p≤0.045)

Clinical and patient-reported outcomes of a kinematically designed CR TKA with a novel medial dished insert design

Katzman JL, Cardillo C, Haider MA, Ehlers M, Schwarzkopf R. Presented at ISTA 2024 — the 35th International Congress; August 28–31, 2024; Nashville, TN, USA.

High mid-term survivorship and significantly improved KOOS JR scores,§ with most patients discharged home after 1.3 days

Single-surgeon, retrospective study of JOURNEY II CR with Medial Dished (n=324; mean follow up of 3.3 years)

98.8% survivorship

Mean of **1.3 days** before hospital discharge

97.2% patients discharged home

Significant improvements in **KOOS JR** scores
(at 6 months and 2 years follow up vs pre-op scores; p<0.001)

We strive to bring Life Unlimited to patients, so we developed JOURNEY II TKA to help patients rediscover their normal knee¶[1–4]

Normal shapes:
Replicates asymmetric femoral and tibial profile[2,3,5,7]

Normal position:
Designed to restore native 3° joint line and anterior/posterior position

Normal motion:
Reproduces native femoral rollback and axial rotation‖[1–6,8,9]

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*Asymmetry in the condylar radii and bearing conformity. †Asymmetry in the anterior/posterior and superior/inferior direction for femoral and tibial components with anatomical alignment built into the design. ‡Pain Intensity, Pain Interference, Mobility, Physical Health. §At 6 months and 2 years follow up vs pre-op scores; p<0.001. ¶As observed in JOURNEY II Bicruciate Stabilised knee systems. ‖As observed in JOURNEY II Bicruciate Stabilised and JOURNEY II Cruciate Retaining knee systems.

Abbreviations: CR = Cruciate Retaining; KOOS JR = Knee Injury Osteoarthritis Outcome Survey, Joint Replacement; TKA = total knee arthroplasty; PCR = posterior cruciate-retaining; PROMIS = Patient-Reported Outcome Measurement Information System.

References: 1. Iriuchishima T, Ryu K. *J Knee Surg.* 2018;31(6):568–572. **2.** Murakami K, et al. *J Orthop.* 2018;15(2):650–654. **3.** Grieco TF, et al. *J Arthroplasty.* 2018;33(2):56–571. **4.** Murakami K, et al. *Int Orthop.* 2018;42(11):2573–2581. **5.** Smith LA, et al. *J Arthroplasty.* 2021;36:1445–1454. **6.** Carpenter RD, et al. *Knee.* 2009;16(5):332–336. **7.** Kaneko T, et al. *J Orthop.* 2017;14:201–206. **8.** Catani F, et al. *J Orthop Res.* 2009;27(12):1569–1575. **9.** Smith LA, et al. *J Arthroplasty.* 2024;39(7):1699–1706.

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