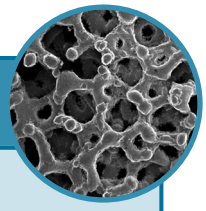
Why choose LEGION◊ CONCELOC◊ Cementless Total Knee System (TKS)?

Stable fixation at 2 years,[1] which is predictive of long-term stability[2]



- Stable fixation of the tibial baseplate has been achieved by 6 months and is sustained through 2 years,[1] which is predictive of long-term stability[2]
- The tibial baseplate comprises of CONCELOC Technology, a fully randomised porous structure that mimics cancellous bone to allow biological in-growth[3,4]

LEGION medial stabilised inserts are designed to optimise kinematics and stability

LEGION medial stabilized inserts are designed to improve kinematics and maintain stability, with or without the posterior cruciate ligament*

Personalise TKA with CORI◊ Surgical System

- CORI Surgical System enables each TKA to be personalised to surgeon preferences and individual patient anatomy, including real-time planning and gap assessment
- Randomised controlled trials have shown Smith+Nephew robotic-assisted TKA outperformed conventional methods for accuracy of limb and implant alignment, and soft tissue handling[5–7]

Smith+Nephew

LEGION◊ CONCELOC◊ Cementless TKS demonstrates stable fixation and high survivorship at 2 years

Evidence from clinical studies has shown:

- **Stable fixation** through 2 years[1]
- **98.5% survivorship**[8] (2 Years)
- Significantly **improved PROMs** (1-year follow-up; versus pre-operative scores, p<0.001)[9]

These new studies build on the **proven clinical history of CONCELOC technology**†

Tibial baseplate migration using radiostereometric analysis[1]

Number of patients: 30
Patient age (years, mean): 66
BMI (kg/m^2, mean): 30.6

Primary outcome:
Change in maximum total point motion (MTPM) of the tibial baseplate

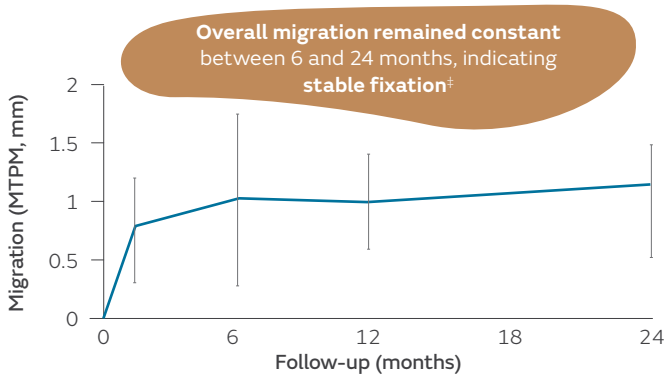


Figure 1. Tibial baseplate migration (mean MTPM) up to 24 months

LEGION CONCELOC TKS demonstrated **stable fixation** by 6 months, which remained constant through 2 years,[1] a result that is predictive of long-term stability[2]

Outcomes from clinical studies[8,9]

Retrospective single-centre study of 135 patients aged 58 years (mean)[8]

98.5% survivorship§[8] (2 Years)

LEGION CONCELOC TKS demonstrated high 2-year survivorship,[8] with patient-reported outcomes showing early improvements that were sustained through 1 year compared to pre-operative scores.[9]

Prospective multi-centre study (interim analysis) of 153 patients aged 63 years (mean)[9]

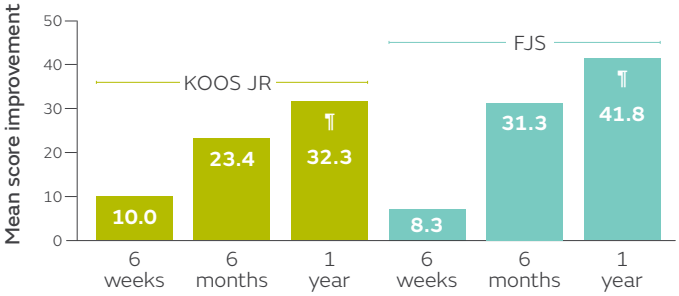


Figure 2. Mean change in KOOS JR and FJS through one-year

*Compared to existing LEGION inserts. †Over seven years of clinical history based on Smith+Nephew's REDAPT◊ Revision Hip System.[10] ‡Stable fixation was defined as <0.2mm change in mean MTPM. §Two patients had revision surgery (1.5% patients [2/135]): one for anterior knee pain and one for aseptic loosening. ¶p<0.001.

Abbreviations: FJS = Forgotten Joint Score; KOOS JR = Knee Injury and Osteoarthritis Outcome Score for Joint Replacement; MTPM = maximum total point motion; OKS = Oxford Knee Score; PROMS = patient-reported outcome measures; TKS = total knee system.

References: 1. Naudie DR, Lanting B, Bohm ER, Turgeon T, Teeter M, Gascoyne T. Multi-center RSA study of a novel cementless total knee replacement. Presented at: COA/CORS/CORA 2025 Annual Meeting, June 11–14, 2025; Vancouver, Canada. **2.** Laende EK, Richardson CG, Dunbar MJ. Predictive value of short-term migration in determining long-term stable fixation in cemented and cementless total knee arthroplasties. *Bone Joint J.* 2019;101-B(7 Supple C):55–60. **3.** Smith+Nephew 2017. Technical Memo TM-17-031. **4.** Smith+Nephew 2015. Orthopaedic Research Report OR-14-091A. **5.** Thiengwittayaporn S, Uthaitas P, Senwiruch C, et al. Imageless robotic assisted total knee arthroplasty accurately restores the radiological alignment with a short learning curve: a randomized controlled trial. *Int Orthop.* 2021;45(11):2851–2858. **6.** Bollars P, Nathwani D, Albelooshi A, et al. Imageless handheld robotic-assisted total knee arthroplasty showed better clinical outcomes than conventional total knee arthroplasty: A randomized controlled trial with preliminary results at 1-year follow up. *Knee.* 2025;56:232–240. **7.** Bollars P, Janssen D, Weerdt WD, et al. Improved accuracy of implant placement with an imageless handheld robotic system compared to conventional instrumentation in patients undergoing total knee arthroplasty: a prospective randomized controlled trial using CT-based assessment of radiological outcomes. *Knee Surg Sports Traumatol Arthrosc.* 2023;31(12):5446–5452. **8.** Antonioli S, Alpert Z, Waren D, et al. Clinical and patient reported outcomes of a novel fully cementless system following total knee arthroplasty. Poster presented at: Orthopaedic Research Society 2025 Annual Meeting, February 7–11, 2025; Phoenix, AZ, USA. **9.** Prinos A, Cardillo C, Greenky S, et al. Short-term outcomes following total knee arthroplasty with a novel fully cementless system. Poster presented at: Orthopaedic Research Society 2024 Annual Meeting, February 2–6, 2024; Long Beach, CA, USA. **10.** Moriarti P, Vles G, Haddad F, Konan S. Early clinical and radiological outcomes of a new tapered fluted titanium monobloc revision stem in hip arthroplasty. *Arch Orthop Trauma Surg.* 2021;141(6):1065–1071.

Smith & Nephew, Inc. 1450 Brooks Road Memphis, TN 38116 USA.
43286 V2 12/25. Published December 2025.

Developed by Evidence Communications, Global Clinical & Medical Affairs, www.smith-nephew.com