

Evidence in focus

Publication summary

Nodzo SR, et al. *Tech Orthop* (2018)*

smith&nephew

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JOURNEY[°] II BCS is associated with significantly improved flexion and patient-reported outcomes compared with posterior-stabilized (PS) total knee arthroplasty (TKA)

JOURNEY II BCS demonstrated 23° more flexion than PS TKA at 1 year follow up



Study design

- A retrospective analysis of 200 patients (mean age, 51 years; males, 87; females, 113) who underwent primary TKA by a single surgeon, 2013-2014
 - Computer-navigated guides were used to minimize surgical alignment error
 - First 100 patients received JOURNEY II BCS
 - Next 100 patients received standard PS TKA
- Range of motion (ROM) and Knee Society Scores (KSS) were recorded pre-TKA and post-TKA (6 weeks and 1 year)



Key results

- Compared with patients receiving standard PS TKA, patients with JOURNEY II BCS showed:
 - Significantly improved mean ROM at 1 year post-TKA (119° vs 96°; $p < 0.0001$; Figure 1)
 - Significantly improved mean KSS scores at 1 year post-TKA (89 vs 81; $p < 0.001$; Figure 2)

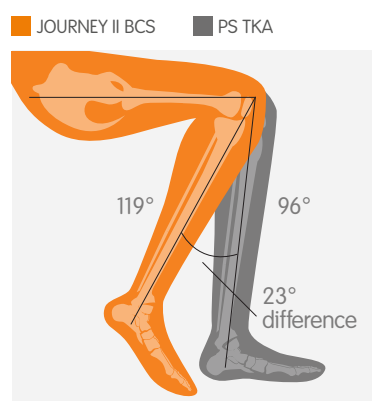


Figure 1. Mean ROM at 1 year post-TKA

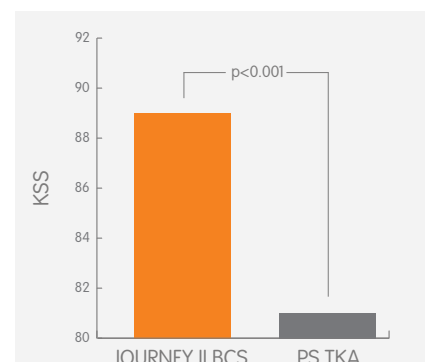


Figure 2. Mean KSS score at 1 year post-TKA



Conclusion

JOURNEY II BCS led to significant improvements in ROM and patient-reported outcomes at 1 year post-TKA, compared with standard PS TKA. The results suggests that the more anatomic design of the implant, which is intended to replicate a more normal knee position and kinematic patterns, may be responsible for the improved flexion and patient satisfaction, compared with PS TKA.



Study citation

*Nodzo, SR; Carroll KM, Mayman DJ. The Bicruciate Substituting Knee Design and Initial Experience. *Tech Orthop*. 2018;33:37-41.