

ROSA[®] Knee System

ACCURACY AND REPRODUCIBILITY VERSUS CONVENTIONAL INSTRUMENTATION



100% of cases within 3°
of the targeted HKA.

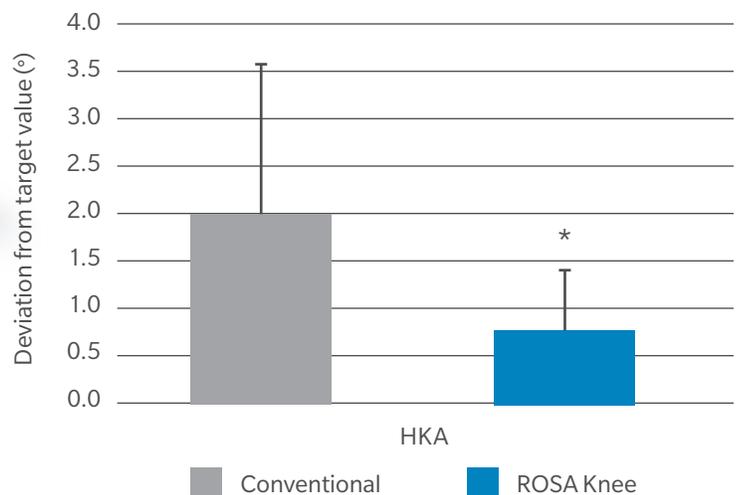
In a recent cadaveric study¹, the ROSA Knee System was found to produce more accurate and more reproducible final limb alignment (HKA: Hip-Knee-Ankle angle) and results demonstrated a higher level of accuracy and less alignment outliers in bone resections compared to a conventional procedure (sample size of 20/14 for conventional/ ROSA Knee cases).

Final Limb Alignment (HKA)

ROSA Knee cases resulted in significantly more accurate and more reproducible HKA than conventional instrumentation.

- Significantly more accurate final limb alignment for ROSA Knee cases: $0.8^\circ \pm 0.6^\circ$ (mean \pm standard deviation).
- Less outliers for ROSA Knee cases:
 - 100% of cases within 3° of the targeted neutral alignment.
 - 93% of cases within 2° of the targeted neutral alignment.

Significantly Better Accuracy of Final Limb Alignment (HKA) for ROSA Knee Cases



* $p < 0.05$

In both groups, the accuracy was determined as the average difference (absolute values) between the intra-operative validation values and target values.

Bone Resections

ROSA Knee cases resulted in significantly more accurate and more reproducible bone resections than conventional instrumentation.

MORE ACCURATE
and **MORE REPRODUCIBLE**
BONE RESECTIONS than
conventional instrumentation.

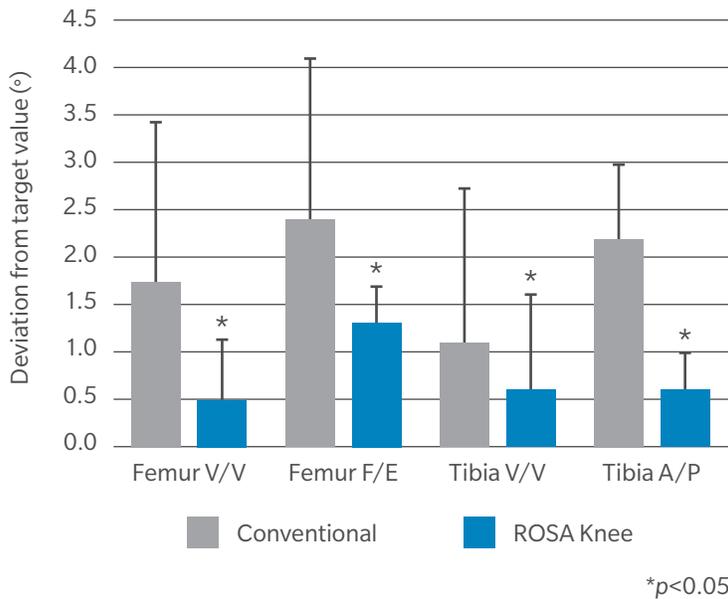
Bone Resection Angles

- More accurate bone resection angles for ROSA Knee cases: accuracy below $0.6^\circ \pm 0.4^\circ$ for all resections (except Femur F/E).
- Fewer outliers for ROSA Knee cases for all bone resection angles.

Bone Resection Levels

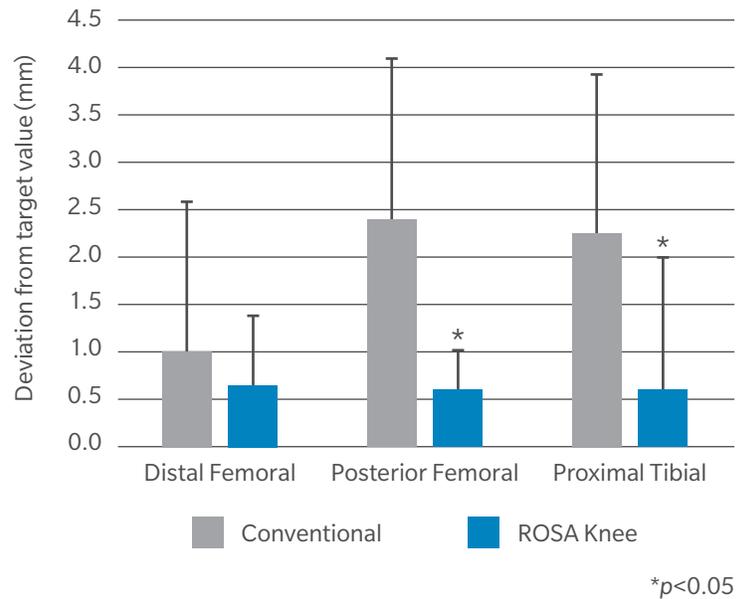
- More accurate bone resection levels for ROSA Knee cases: accuracy below $0.7 \text{ mm} \pm 0.7 \text{ mm}$ for all resections.
- Fewer outliers for ROSA Knee cases for all bone resection levels (except Distal Femoral).

Significantly Better Accuracy of All Bone Resection Angles for ROSA Knee Cases



In both groups, the accuracy was determined as the average difference (absolute values) between the intra-operative validation values and target values.

Significantly Better Accuracy of Bone Resection Levels for ROSA Knee Cases (except Distal Femoral)



In both groups, the accuracy was determined as the average difference (absolute values) between the intra-operative caliper measurement values and target values.

References

1. Seidenstein A, Birmingham M, Foran J, Ogden S. Better accuracy and reproducibility of a new robotically-assisted system for total knee arthroplasty compared to conventional instrumentation: a cadaveric study. *Knee Surg Sports Traumatol Arthrosc.* 2020 May 24. doi: 10.1007/s00167-020-06038-w. Epub ahead of print. PMID: 32448945.

Cadaveric studies are not necessarily indicative of clinical performance. Study was funded by Zimmer Biomet and utilized at least three Zimmer Biomet implant systems.

All content herein is protected by copyright, trademarks and other intellectual property rights, as applicable, owned by or licensed to Zimmer Biomet or its affiliates unless otherwise indicated, and must not be redistributed, duplicated or disclosed, in whole or in part, without the express written consent of Zimmer Biomet.

This material is intended for health care professionals. Distribution to any other recipient is prohibited. For indications, contraindications, warnings, precautions, potential adverse effects and patient counseling information, see the package insert or contact your local representative; visit www.zimmerbiomet.com for additional product information. Check for country product clearances and reference product specific instructions for use.

