

New Knee Research Finds Exactech Technologies Improve Patient Outcomes

GAINESVILLE, Fla. (March 20, 2024) – [Exactech](#), a developer and producer of innovative implants, instrumentation, and smart technologies for joint replacement surgery, announced new research that reports surgeons using ExactechGPS® guided personalized surgery and its Newton® ligament-driven balancing technique experience clinically significant improvements on postoperative Knee Society Knee and Function scores when compared to traditional navigated gap balancing methods, according to a recent study published in the *Journal of Arthroplasty*.

“Optimizing soft tissue balance is critical to the success of total knee arthroplasty,” said James Huddleston, MD, of Stanford University. “Exactech’s ligament-driven technology provides full-range intraoperative balance data, allowing surgeons to create patient-centric plans with consideration for the ever-important mid-flexion stability. The results of this study are powerful in demonstrating the beauty of personalized knee arthroplasty and the importance of addressing instability and improved satisfaction.”

The study evaluated the clinical outcomes of a total of 200 patients who underwent computer-assisted cemented, posterior-stabilized TKA with gap balancing at 0 and 90° compared to patients with full-range gap balancing leveraging GPS and the Newton knee balancing technique. The results demonstrated that Exactech’s ligament-driven knee technology did not significantly increase operative time, and the patients, on average, experienced an eight-hour shorter hospital stay and yielded clinically significant improvements on Knee Society Knee and Function scores.

“This new independent study exemplifies the importance of personalized surgical planning based on reliable soft-tissue acquisition throughout the arc of motion and shows that even for the best surgeons the adoption of our advanced technologies may translate into clinically significant improvement in results,” said Laurent Angibaud, Exactech Vice President of Development, Advanced Surgical Technologies. “In contrast, other technologies that do not consider soft tissue as part of their surgical planning have shown that odds of revision in TKA for instability and pain were significantly higher than patients who had conventional TKA.”

Powered by [Active Intelligence®](#), Exactech’s ligament-driven balancing technology provides orthopaedic surgeons with dynamic soft tissue analytics, pre-resection operative insights and full-range personalized planning designed to help simplify, evaluate, and execute reproducible balanced total knee replacement surgery.

GPS and Newton are available to surgeons worldwide. For more information, visit www.newtonknee.com.



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About Exactech

Exactech is a global medical device company that develops and markets orthopaedic implant devices, related surgical instruments and the Active Intelligence® platform of smart technologies to hospitals and physicians. Headquartered in Gainesville, Fla., Exactech markets its products in the United States, in addition to more than 30 markets in Europe, Latin America, Asia and the Pacific. Visit www.exac.com for more information and connect with us on [LinkedIn](#), [X](#), [Instagram](#), [YouTube](#) and [Vumedi](#). *With Exactech by your side, you've got EXACTLY what you need.*

References:

1. **Kirchner MD et al.** Robotic-assisted TKA is Not Associated With Decreased Odds of Early Revision: An Analysis of the American Joint Replacement Registry. *Clin Orthop Relat Res* (2024) 482:303-310.
2. **Angibaud L et al.** Reliability of laxity acquisitions under controlled load environment during navigated TKA. *EPiC Series in Health Sciences. Proceedings of The 20th Annual Meeting of the International Society for Computer Assisted Orthopaedic Surgery*, 2022;5:15-18.

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