

## New Study Demonstrates Superior Reproducibility Using Exactech Knee Balancing Technology

**GAINESVILLE, Fla. (Feb. 10, 2024)** – [Exactech](#), a global leader in medical technology, has announced the results of a new cadaveric study published in the *Journal of Experimental Orthopaedics (JEO)*. The study highlights the superior reliability and reproducibility of Exactech's knee balancing technology compared to conventional methods—a significant milestone in enhancing patient outcomes. Combined with ExactechGPS®, the Newton Knee technology offers dynamic soft tissue analytics, pre-resection operative insights and full-range personalized planning designed to simplify, evaluate and execute balanced total knee replacement surgery.

Conducted by researchers from Exactech and the University of Montpellier, France, the study compared Exactech's knee balancing technology to traditional manual gap measurement methods commonly used with competing systems, like robotics. Results demonstrated that Exactech's Newton Knee balancing technique consistently outperformed conventional methods in reliability, regardless of surgeon experience.

"This study confirms that Exactech's Newton Knee balancing system enables reliable and reproducible acquisitions of the medial and lateral space, offering significant value compared with conventional manual techniques, including with robotics," said Gérard Giordano, Head of the Orthopaedic Department at the Joseph Ducuing Hospital in Toulouse, France. "By enabling more accurate ligament balance assessments, the technology plays a crucial role in optimizing implant placement and improving functional outcomes, contributing significantly to the progress of personalized surgical planning."

Key findings include:

- Surgeons using the Newton technique achieved higher reliability compared to manual methods
- Reproducibility was unaffected by surgeon experience, addressing discrepancies often observed between junior and senior surgeons
- Gap measurement differences between techniques became more pronounced with increased knee flexion, showcasing the consistency of Newton technology along the full arc of motion

"Exactech empowers surgeons with real-time, personalized data with our robust platform of advanced technologies," said Laurent Angibaud, Exactech's Vice President of Development, Advanced Surgical Technologies. "This research highlights the transformative potential of Exactech's guided, personalized balancing technology to set a new standard for precision and improved outcomes in total knee replacement surgery."

GPS and the Newton knee balancing technique are critical components of Exactech's Active Intelligence® ecosystem of smart solutions designed to provide surgeons with real-time insights and cost-effective solutions for improved patient outcomes. Both technologies are available to surgeons worldwide.

For more information, visit [www.exac.com/exactech-knee-high-technology/](http://www.exac.com/exactech-knee-high-technology/).

Reference:

1. **Boux de Casson, F. et al.** Navigated instrumentation and ligament tensioning device enhances initial gap acquisition during total knee arthroplasty procedure: A cadaveric study. *Journal of Experimental Orthopaedics*, Oct. 2024.
2. **Valtanen RS et al.** Improved Clinical Outcomes with Dynamic, Force-Controlled, Gap-Balancing in Posterior-Stabilized Total Knee Arthroplasty. *J. Arthroplasty*. 2024.

**About Exactech**

Exactech is a global medical technology leader that empowers orthopaedic surgeons with innovative implants, surgical instruments and the Active Intelligence® (AI) ecosystem of smart technologies to give patients EXACTLY what they need to regain mobility. Visit [www.exac.com](http://www.exac.com) for more information and connect with us on [LinkedIn](#), [Vumedi](#), [YouTube](#), [Instagram](#) and [X](#).

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