

LEADING THE WAY

Mount Sinai Medical Center integrates medical and technological advancement with a smart-knee implants.

BY CHARLOTTE TRATTNER

Innovation is at the forefront of modern-day medicine, seamlessly uniting technology with healthcare. When it comes to orthopedic surgery, Mount Sinai Medical Center leads this innovation, offering the world's first and only smart-knee implant.

Performed by Dr. Karim G. Sabeh, the director of Adult Reconstruction and Arthroplasty and an assistant professor of orthopedic surgery at the Columbia University Division of Orthopedic Surgery at Mount Sinai Medical Center, this bionic innovation, created by Zimmer Biomet, is the latest technology in knee replacement surgery.

"Integrating smart implant technology for the first time ever in joint replacement surgery is a huge step forward in advancing the field, and the sky is the limit as to what we will be able to do with this technology as it evolves and gets more sophisticated," Sabeh explains.

As the world's only FDA-approved smart-knee implant, the device measures range of motion, step count, walking speed, and other movement metrics. While the device wirelessly transmits the data to the patient's personal account, it does not have a monitor location or GPS. The data is then securely

delivered to a HIPAA-compliant, cloud-based platform, which the patient or the physician can access.

Taking the guesswork out of monitoring a patient's progress with rehabilitation and recovery, the device will also enable increased patient

engagement with their doctor through constant connection to their care team. Linked to the remote care platform, MyMobility, the technological implant sends personalized reports while also assisting with the recovery process, minimizing surgical complications.

"We can improve clinical outcome, detect early complications, better diagnostic data as we study gait kinematics and understand it better... to help us understand why someone's knee is hurting," Sabeh adds. *4300 Alton Rd., Miami Beach, msmc.com*

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Zimmer Biomet's smart-knee