



Augmented Reality Enters a new Phase: Michigan Surgeon Performs First U.S. Knee Replacement Using Pixee's Knee+ NexSight Smart Glasses

May 2026 - BLOOMFIELD HILLS, Mich. Orthopedic Specialists of Oakland County (OSOC) announced today that Dr. Safa S. Kassab has become the first surgeon in the United States to perform a total knee replacement using Pixee Medical's Knee+ NexSight augmented reality (AR) glasses — a wearable heads-up display that delivers real-time surgical guidance directly into the surgeon's field of vision inside the operating room.

The milestone marks a significant advancement in surgical precision technology and reinforces Dr. Kassab's position at the forefront of augmented reality-assisted orthopedic surgery. Dr. Kassab has performed more Pixee AR-guided knee replacement procedures than any surgeon in the world, accumulating unmatched experience with the platform since its introduction.

"Augmented reality in the operating room is not a distant concept — it is here, and it is transforming the outcomes we can achieve for our patients," said Dr. Kassab. "The Knee+ NexSight glasses allow me to keep my eyes on the patient while receiving precise, real-time navigational data in my line of sight. It represents a new standard for how knee replacement surgery can be performed, and I am proud that our patients in Michigan are the first in the country to benefit from this technology."

The Pixee new AR platform functions as an optical heads-up display, overlaying critical navigational information including bone alignment, implant positioning, and surgical landmarks directly into the surgeon's visual field without requiring them to look away from the operative site. Unlike conventional navigation systems that rely on external monitors, the new platform keeps the surgeon's attention focused and workflow uninterrupted. Critically, the surgeon remains in complete control at every step. The augmented reality system informs without intervening, a distinction that sets this technology apart from robotic and automated surgical systems.

"This FDA clearance is a key milestone in Pixee's mission to support orthopedic surgeons with efficient, accurate, and cost-effective solutions," said Sébastien Henry, CEO of Pixee Medical. "Knee+ NexSight was built specifically for the ASC environment, where TKA is increasingly being performed. We are honored that Dr. Kassab and his team completed the first U.S. case with us."

Dr. Kassab's patients have already experienced the impact of augmented reality-guided surgery firsthand. One of his patients described his results after undergoing an AR-guided knee replacement: "My results were amazing. A friend of mine near Atlanta, Georgia, also needs surgery, and I have encouraged him to consider this technology."





The introduction of the Knee+NexSight latest upgrades builds on a track record that OSOC has established as a regional and national leader in augmented reality orthopedics. Dr. Kassab and the OSOC team have invested extensively in surgeon training, patient education, and outcomes tracking to ensure that advanced technology translates into meaningful clinical benefit.

Orthopedic Specialists of Oakland County serves patients throughout Metro Detroit and Southeast Michigan. The practice is located at 44038 Woodward Ave., Suite 200, Bloomfield Hills, Michigan, and can be reached at (248) 335-2977 or via osoc.com.

ABOUT ORTHOPEDIC SPECIALISTS OF OAKLAND COUNTY

Orthopedic Specialists of Oakland County (OSOC) is a leading orthopedic practice serving Metro Detroit and Southeast Michigan. Founded by Dr. Safa S. Kassab, MD, OSOC specializes in joint replacement, sports medicine, spine and minimally invasive orthopedic procedures. Dr. Kassab is one of the nation's foremost authorities on augmented reality-assisted total knee arthroplasty and has performed more Pixee AR-guided cases than any surgeon globally. OSOC is committed to delivering the most advanced, evidence-based surgical care available. For more information, visit osoc.com

About Pixee Medical

Pixee Medical develops augmented reality solutions for implant placement that offer orthopedic surgeons cutting-edge and clinically proven tools for precise and efficient surgery. Its first generation of products has already been used in over 10,000 procedures in more than 20 countries, demonstrating its positive impact on surgical practices worldwide. To learn more, visit pixee-medical.com

DISCLOSURE

Dr. Kassab serves as a paid consultant to Pixee Medical.

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