

Naitive® and Heraeus Medical Collaborate to Characterize Bone Health and Fixation Methods in THA and TKA Patients

(London, UK) October 23, 2025. Naitive® Technologies, a medical technology company developing AI-driven software to reimagine orthopedic care, today announced a new research collaboration with Heraeus Medical, a global leader in the field of bone cements and biomaterials for surgical orthopedics and trauma surgery, and Sah Orthopaedic Associates, a leading orthopedic practice in northern California, known for its patient-first, research-driven care.

The project will use Naitive's flagship technology, OsteoSight™, to estimate the prevalence of low bone mineral density (BMD) in patients with an AP hip or pelvic X-ray who have undergone primary elective total hip arthroplasty (THA) or total knee arthroplasty (TKA) at Sah Orthopaedic Associates. The research study will also assess the proportion of patients with low BMD, as estimated by OsteoSight, who received cementless fixation. The analysis will provide a data-driven analysis of current fixation patterns among patients with a range of bone quality.

Low BMD is highly prevalent among patients undergoing joint replacement surgery[1], yet preoperative bone health assessment remains rare, despite its significant impact on surgical outcomes. In primary elective THA and TKA, implant fixation method can influence complication rates, particularly in patients with poor bone health. In the US, uncemented fixation is the most common approach for primary elective THA and is growing in popularity for primary elective TKA. However, evidence suggests that patients with low BMD may benefit from cemented fixation, to reduce the risk of intraoperative and post operative periprosthetic fracture, implant loosening, and early revision.

"With an established history in joint fixation, we're looking to explore how bone health and fixation choices intersect in real-world settings," said Dr. Andrew Williamson, President of Heraeus Medical. "Characterizing bone density helps us understand where cemented fixation with PALACOS® technology benefits patients with compromised bone quality."

Dr. Alexander Sah, Co-Director of the Institute for Joint Restoration in Fremont, CA, said "We're excited to be leading the clinical component of this collaboration. By contributing real-world clinical data from our joint replacement patients, we can help characterize variability in bone health among patients. Understanding these patterns is essential to optimizing surgical planning and improving long-term outcomes."

OsteoSight, which received FDA 510(k) regulatory clearance in September 2025, opportunistically analyzes routine hip and pelvic X-rays in patients 50 years and older and identifies those cases at risk for low BMD. It can be embedded into routine orthopedic clinical workflows without changing existing imaging protocols.

“We’re proud to be working alongside Heraeus and Sah Orthopaedics on this project,” said Dr. Will Briggs, CEO of Naitive. “OsteoSight is redefining how we care for bone health in the orthopedic workflow. When combined with the deep clinical and surgical expertise of our partners, it creates an opportunity to better understand and ultimately improve outcomes in joint replacement.”

About Naitive Technologies

Naitive is a medical technology company developing AI-driven software to reimagine orthopedic care. We are dedicated to solving urgent challenges in musculoskeletal health by building intelligent, pathway-driven technologies that help orthopedic providers surface at-risk patients, convert them to treatment, and coordinate their care – ensuring that every high-risk patient is identified early, treated appropriately, and supported throughout their journey.

OsteoSight™, our flagship technology, enables opportunistic assessment of low bone mineral density (BMD) from routine X-rays, seamlessly embedding bone health into the orthopedic care pathway. By driving earlier intervention, enabling more informed surgical planning, and addressing the urgent need to reduce osteoporotic fractures, OsteoSight exemplifies our mission to redefine how care is delivered – making better outcomes and stronger health systems a reality.

Built on academic leadership from Oxford and Cambridge and in collaboration with world-leading healthcare systems, Naitive is powering the future of orthopedic care.

Discover more at naitive.com.

About Heraeus Medical

Heraeus Medical is a leader in the field of bone cements and biomaterials for surgical orthopedics and trauma surgery. In this way, the company makes a decisive contribution to supporting the surgeon and the surgical team to improving the surgical outcome. The core product PALACOS® is considered the gold standard among bone cements and has proven itself in clinical use with over 40 million procedures worldwide. Heraeus Medical is regularly recognized for its sustainability efforts and innovation initiatives. In 2024, the company once again received EcoVadis Gold status, and in 2025 for the third consecutive time the award as one of Germany's most innovative companies in the field of medical technology.

www.heraeus-medical.com

About Sah Orthopaedic Associates

Sah Orthopaedic Associates is committed to delivering the highest quality joint replacement care possible, in the most compassionate way possible. The team performs the most hip and knee replacement surgeries in northern California while

providing patients with the most personalized and individualized care available. The practice's comprehensive program is based on five pillars including: unique personalization, cutting-edge techniques and protocols, research and education, an integrated team approach, and an award-winning Institute for Joint Restoration facility.

www.sahortho.com

References:

[1] <https://pubmed.ncbi.nlm.nih.gov/24085661/>

Disclaimer: This article is for informational purposes only and does not constitute medical advice. Consult with a qualified healthcare professional for any medical concerns or treatment options related to osteoporosis.