



The Future of Knee Surgery is Now

Orthopaedic Hospital of Wisconsin patients have access to a more personalized, cutting-edge knee replacement surgery that may offer less pain, a shorter recovery, and greater patient satisfaction.



For many years, the only way for orthopaedic surgeons to help sufferers of knee pain or arthritis was through a traditional knee replacement—an operation that relies on skilled surgeon assessment and a jig on the bone's external surface to guide a surgeon's instruments. After more than two decades of performing thousands of successful traditional knee and hip replacements, doctors at Orthopaedic Hospital of Wisconsin (OHOW) recognized a need to expand offerings to its patients. With 20% of patients nationwide experiencing some level of dissatisfaction after knee replacement surgery, a commitment was made to explore more options for OHOW patients.

"Surgery done the traditional way can either be well positioned or off target due to human error," says Jesse Bauwens, M.D.

The team at OHOW invested in an innovative technology that seeks reliable outcomes through robotic arm-assisted surgery with Mako SmartRobotics™.

Mako's robot-assisted technology removes human error from the equation by using 3D Computer Tomography (CT)-based planning to help determine the best angles to cut a bone before the surgeon even picks up the blade. "It's a more accurate procedure that's also more reliable," says Dr. Bauwens, noting that over one million Mako-assisted total knee replacements have been completed since the technology was introduced.

Performing both hip and knee replacements, Dr. Bauwens has been

instrumental in bringing innovative technology to OHOW. First introduced to Mako in 2018 during his fellowship training at the University of Louisville, he is excited to continue to grow the program at OHOW since it began offering Mako-assisted knee replacements in 2024.

Surgery for the Future

Before a patient enters the surgical suite, the OHOW team has begun the procedure with a CT scan. "This allows us to have a 3D view of the knee and create a personalized surgical plan for each individual patient," says Dr. Bauwens.

The key word is personalized, which ultimately leads to quicker recovery times, decreased length of hospital stay, less pain, and better range of motion. It also offers surgeons more options for personalization in the operating room, anticipating solutions for situations that they may encounter in real time. In the end, adds Dr. Bauwens, gaining detailed information via Mako's 3D CT-based planning is a win-win for doctors and patients alike.

"It gives us a more accurate position for knee replacement, which ultimately leads to a more durable, longer-lasting knee for our patients," he says.

The addition of successful, cutting-edge technology is nothing new for OHOW, which prides itself on offering patients the most up-to-date, high-level care achievable. In fact, says Dr. Bauwens, Mako technology will likely be increasingly adapted in other healthcare settings moving forward.

"It's a wonderful technology that will help deliver better care to knee replacement patients going forward," Dr. Bauwens concludes. "I'm excited to give patients a more accurate, reliable surgical outcome."

