

Script – Print – Get a leg up on orthopedic surgery

Two of the biggest concerns orthopedic surgeons hear from their patients who suffer knee or hip issues are ongoing pain and lifestyle disruptions.

“A typical patient has pain in their knee or hip every single day,” says Connor Kasik, DO, an orthopedic surgeon who works at OSF HealthCare Saint Elizabeth Medical Center in Ottawa, Illinois. “The pain interferes with their activities of daily living. They can't perform activities without the pain and it's debilitating enough that they look for surgical intervention to help them out.”

At OSF Saint Elizabeth, advanced robotic-arm assisted joint replacement technology has become a game-changer for both patients and their care team.

The system is a Stryker Mako SmartRobotics system. This technology allows orthopedic surgeons to personalize partial knee, total knee and hip replacement procedure for patients. Doctors say the biggest advantages to using this system are better outcomes, improved accuracy and a quicker recovery for the patient.

OSF Saint Elizabeth began utilizing the Mako robotic system last year, joining other OSF hospitals that offer the technology.

“It is mostly older people that we see, however, we can see arthritis in younger patients if they have prior injuries that have caused any type of post traumatic arthritis,” says Dr. Kasik. “But it's mostly older people with wear and tear arthritis that has occurred throughout the years.”

Robert Mitchell, DO, has been an orthopedic surgeon for nearly 30 years and provides care at OSF Saint Elizabeth.

“I saw the original evolution of total knees and total hips when it was done the old traditional method and I call that like old school carpentry where we use cutting blocks and cutting jigs and we're doing all our measurements by eyeball,” says Dr. Mitchell. “Now we've taken it a step further with computerization of total hips and total knees. Scientifically, we know how the implant should be positioned, and we've taken a lot of the (potential) human error out of putting the new implant in the human body.”

Many people opt for surgery after conservative treatment has proven unsuccessful. He says they've tried cortisone injections and other treatments but remain in constant pain.

According to Dr. Mitchell, the first step with the Mako system starts with a CT scan of your knee or hip joint, which is loaded into the Mako software and used to develop a 3D virtual model of your specific anatomy. The virtual model created from the CT scan helps the surgeon create a patient-specific surgical plan.

In the operating room, the surgeon guides Mako's robotic arm to remove arthritic bone and cartilage from the knee or hip. After the removal of the diseased bone, the implant is placed into the joint.

“This Mako robotic assisted surgery allows us to use those 3D images and we can move implants around, we can position it better,” says Dr. Mitchell. “Especially for total knees, we can actually move the knee virtually and see how well it's going to move before we make any bone cuts, or we implant it.”

The greatest benefit for patients is a quicker recovery. Most people go home the next day, with some even discharged on day of surgery. Patients will continue their recovery with physical therapy and follow-

up appointments with their physician.

"There's less post operative pain, their recovery is faster and their range of motion is improved," says Dr. Kasik. "They get back to work at around six weeks, depending on the type of work they do. And then after about three months, they're feeling great and back doing their normal activities."

Seeing patients back on their feet is rewarding for the surgeons, as well.

"Being an orthopedic surgeon, one of the things that gives me joy and satisfaction is seeing someone walk in, either without a cane or without a walker," says Dr. Mitchell. "The biggest thing is having them tell me that their pain is gone, that they can now walk pain free. They can do things they couldn't do before – the simple things in life, like going to the grocery store or going to church. Doing things in their house pain free."

To learn more about the Mako Robotic Arm Assisted Surgical System, visit [OSF HealthCare](#).