

Maury Regional offers robotic-arm surgeries for knees, hips

By James Bennett jbennett@cdh.net

Posted Oct 16, 2017 at 12:53 PM

Updated Oct 16, 2017 at 5:11 PM

More than 700 patients have knee or hip replacement surgeries at Maury Regional Medical Center each year.

The procedure will become more commonplace in the next decade, experts predict, with the preponderance of obesity and the impact of arthritis in Tennessee and other rural states.

The demand likely will double in Columbia and southern Middle Tennessee, putting an increased demand on doctors for speed and efficiency.

Thinking ahead and trying to stay competitive with other hospitals, Maury Regional has invested in new technology, with positive outcomes and even better accuracy in mind.

The hospital purchased two highly advanced robotic surgical devices from medical supply company Stryker earlier this year. The Mako robotic arm systems arrived in Maury Regional's operating room this month at a cost of \$1.3 million.

Orthopedic surgeons Scott McCall and W. Cason Shirley of the Mid-Tennessee Bone & Joint Clinic performed their first two surgeries with devices in Columbia on Oct. 9. The surgeon-controlled robotic arm enables accurate alignment and placement of hip and knee implants.

"Both of the surgeries went really well," Shirley said in an interview with *The Daily Herald* last week. "We have more scheduled in the coming weeks, so we're getting ramped up quickly."

Just about everyone who's a candidate for knee or hip replacement surgery can be treated using the robotic arm.

"With Mako, we can provide each patient with a personalized surgical experience based on their specific diagnosis and anatomy," McCall said. "Using a virtual 3D model, Mako allows surgeons to create each patient's surgical plan pre-operatively before entering the operating room."

Shirley added: "During surgery, we can validate that plan and make any other necessary adjustments to tailor it precisely to what the patient needs. It's exciting to be able to offer this transformative technology across the joint replacement service line to perform total knee, total hip and partial knee replacements."

A combination of factors leads to knee or hip replacements, Shirley said. Arthritis seems to be a common denominator in many.

"There's a multitude of factors," Shirley said. "Arthritis can cause deterioration in patients to the point where they need a joint replacement. Some of it is activity replayed, a traumatic injury to a joint [from sports or an accident]. A big component is genetics."

Pain typically brings patients into the office for exams. Doctors look into their medical history and perform physical exams as part of treatment.

"We try to find out the kind of pain they have been having," Shirley said. "We look into their limitations. We look into other treatments they have had."

"We can start with simple X-rays of the joints," he added. "We typically can identify arthritis from X-rays. We usually don't need MRIs, CT scans or advance imaging to identify arthritis."

Living longer and having a better quality of life also factor into decisions to have joint replacements.

"Patients tell us their priorities are pain relief and quality of life," Shirley said. "They want to move independently without devices to assist them."

There's no age cutoff for the surgery. Doctors look more at each patient's health individually.

"The average recovery time for a knee replacement surgery is six to eight weeks," McCall said. "A physically demanding job might require three months."

"For a hip, it's slightly quicker than that," he added. "A hip is easier to get over than a knee. The knees are harder to recover from because there's more range of motion to regain."

Surgeons control the robot and what's happening throughout the operation. Doctors at Maury Regional have been looking at the technology and training on it for about six months.

"The procedure is not radically different than what we've done before," McCall said. "The surgeon is not sitting in a back room, with joysticks, doing surgery outside of the operating room. The robot sets the plan specific to the patient, and you can make small variations to maximize ligament replacement. The robot can make cuts a human cannot do."

Three different kinds of surgeries will be impacted by the robotic surgery — total knee, partial knee and total hip procedures.

“We are proud to offer this highly advanced technology in our area,” Maury Regional CEO Alan Watson said. “The addition of two Mako systems to our orthopedic service line further demonstrates our commitment to provide the community with outstanding health care.”

Maury Regional recently was named High Performing Hospital for 2017-2018 for hip and replacement surgery by *U.S. News & World Report*. CareChex.com recognized Maury Regional as the No. 1 hospital in Tennessee and in the 10 percent in the national for medical Excellency in joint replacement and orthopedic care for 2017.

“This shows we are offering cutting-edge technology in Columbia,” Tennessee,” McCall said. “You don’t have to go to Memphis, Nashville or the Mayo Clinic to get it.”



James Bennett is editor of The Daily Herald. His column blends exclusive reporting, old-school journalistic storytelling and original commentary on whatever catches his fancy or yours. He was a 2017 Tennessee Press Association first-place award winner for editorial writing and public service. Contact him at jbennett@c-dh.net.



SIGN UP FOR DAILY E-MAIL

Wake up to the day's top news, delivered to your inbox

