



TECHNOLOGICAL ADVANCES

Local orthopedic group brings cutting edge technology, techniques to Southeast Texas

Surgeons at Beaumont Bone & Joint Institute, CHRISTUS Orthopedic Specialty Center partners, are using cutting-edge technology and techniques to improve patient outcomes and reduce recovery times for some of the most commonly required procedures, knee and hip replacements.

Dr. Stephen Hall and his Beaumont Bone & Joint partners are trained to perform Mako Robotic-Arm Assisted Surgery, utilizing a technologically advanced tool that Hall says works well for total knee replacements and is his new go-to for partial knee replacements, also known as unicompartmentals.

“For me, the robot is the only way to go for a unicompartmental knee replacement,” he shared. “Those can be difficult to do. Total knee replacements are not actually very difficult to do and get good results with it. Everybody in the practice gets good results with total knee replacements. We all do them on a regular basis. However, the unicompartmental can be a little tricky.

“With the robot making these cuts, it’s easier. I was a big skeptic, but after I did my first one and took the x-ray in the recovery room, I told myself I am never doing another one without this. It’s very efficient, and it really works well for that.”

As we age, some people develop osteoarthritis (OA), or degenerative arthritis, that may cause joint pain, and could require a surgical solution. Hall says when patients present to his office with joint pain, he asks them about their medical history and performs a number of tests. If he determines they require a partial or total knee replacement, he then offers them some options, like whether or not they would like the Mako used in their procedure. If so, they go for a special CAT scan and that data is fed into the computer. Total knee replacement is when the knee is completely replaced, including the kneecap underneath, while, usually, the partial knee replacements are on one side of the knee.

“During surgery, when you open the knee, you plot points on the knee that the robot can see,” Hall described. “The robot is able to see and calculate the cuts. The points are dictated by the computer and

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the program. What the robot's trying to do is see the knee, so you take this little pointer that has an array on it that the robot sees, and you point all these things out. So, it's able to see everything."

The robot quickly plots out 30-45 points on the knee and calculates what is needed for the knee replacement. The robot balances the knee before the surgeon ever even makes an incision. The programmed robot then cuts the bone precisely where required and removes it so

the surgeon can complete the procedure.

The components used to replace the knee are the same as those used in regular surgeries where the Mako is not utilized, Hall explained.

"It's not a robotic knee. You're not going to be the \$6 million man after this," said Hall. "That's a very common misconception. Everybody thinks with a robot knee, you are putting different components in. It's the exact same components that we've used in the past. The components are not designed by the robot. They are measured by the robot. The measurements for the part are done by the robot so that you put in the correct sizes."

According to Hall, the Mako is not new technology, but it is new to the area.

"Several surgical robot assistants are on the market, but MAKO is the grandfather of them all," said Hall. "It's been around for a while. It's the most tried and true technology of its kind on the market."

Hall himself has already utilized the Mako for a partial knee replacement, which he added is an uncommon procedure as he sees total knee replacements



Dr. Stephen Hall



best in quality care for their clients. There is no referral necessary to schedule an appointment, but some insurance companies may require referrals. Call Beaumont Bone & Joint to learn more or to make an appointment. They can be reached at the Beaumont office at (409) 838-0346, the Mid-County office at (409) 729-5633, or in Port Arthur at (409) 983-5178. For more information, visit the website at beaumontbone.com.

About the partnership

The partnership between CHRISTUS Orthopedic Specialty Center and the Beaumont Bone & Joint Institute means no more driving miles away to see an orthopedic specialist or waiting weeks for treatment. They now offer same day or next day appointments with one of their board-certified, fellowship-trained orthopedists who are with you from start to finish. The orthopedic specialists provide a full range of care with access to the most advanced imaging and surgical technology in the region.

much more often.

“We don’t see the need for a unicompartmental replacement very often, but a patient came in and was the perfect candidate for it. He needed it.

“Surgically and radiographically, his results looked great after the procedure. Then I saw him in the office, and he was doing very well very quickly. So, there are several confirming points there – the x-ray, how he is feeling, what I saw as far as the time it took to do the procedure. It was all very good.”

Hall says the procedure took about an hour, which is about the same time it would have taken without the Mako robot’s assistance, but because of the robot’s accuracy and excellent results, “If this takes a little longer, I’m OK with it... I was really pleased with it. It’s been a significant boon to the practice.”

“There is another advantage to the robot,” he added. “When we do an alignment for a normal knee we put a rod into the femur. When we put the rod into the femur, that can cause a lot of bleeding and swelling of the knee. So, there’s some advantage of not having

the rod in the femur for your alignment because you don’t have this hole in the femur causing swelling into your knee.”

Hall does general orthopedic surgery, with spinal surgery being the exception, and has done numerous hip replacements, as well as knee. He said he and his colleagues at Beaumont Bone & Joint Institute have also recently been trained to perform anterior hip replacement, which have become very popular, he described.

“One of the main things people are requesting nowadays is anterior hip replacements,” he shared. “A lot of people are going to Houston for it. We’re doing it here, and it’s available here. It’s a different approach to hip replacement. Instead of going through muscles, you go from the front... The recovery is much more rapid. People are going home the next day. They’re very happy with the results. They’ve been very good.

“We trained in Houston where everyone was going for it. After doing a few, I was no longer skeptical because the results were so good. The patients are up and moving

the same afternoon as their surgery. We have them walking the halls that afternoon. All of our anterior hip replacement patients have gone home the same day.”

With multiple surgeons trained to use the high-tech Mako and in the newest hip replacement techniques, Beaumont Bone & Joint Institute is poised to provide the

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