

St. Joseph Health Receives Mako SmartRobotics Surgical Robot

Bryan, TX, January 11, 2024 – St. Joseph Health Regional Hospital is the first hospital in the Brazos Valley to offer Mako SmartRobotics™. This advancement in joint replacement surgery transforms the way total and partial knee replacements are performed, by helping surgeons know more and cut less.^{1-5*}

Mako SmartRobotics™ combines three key components, 3D CT-based planning, AccuStop™ haptic technology and insightful data analytics, into one platform that has shown better outcomes for total and partial knee patients.⁶⁻⁸

“With the addition of the Mako Robot, we are continuing to expand and offer the latest opinion and innovation in joint replacement,” said Joseph Iero, MD, orthopedic surgeon at St. Joseph Health Regional Hospital. “It allows us to tailor joint replacement to the individual patient. This usually means less pain, shorter hospital stays, and hopefully an even quicker recovery. We are excited to bring this to the Brazos Valley.”

Total knee replacements in the United States are expected to increase 189% by 2030,⁹ yet studies have shown that approximately 20% of patients are dissatisfied after conventional surgery.¹⁰ Mako Total Knee combines Stryker’s advanced robotic technology with its clinically successful Triathlon Total Knee System, which enables surgeons to have a more predictable surgical experience with increased precision and accuracy.¹¹ In clinical studies, Mako Total Knee demonstrated the potential for patients to experience less pain, less need for opiate analgesics, less need for inpatient physical therapy, reduction in length of hospital stay, improved knee flexion and greater soft tissue protection in comparison to manual techniques.^{3,7}

“St. Joseph Health brought you Joint University and computer navigation, and now we are the first to bring robotics,” said Justin Brazeal, MD, orthopedic surgeon at St. Joseph Health Regional Hospital. “We have the longest running joint replacement center in Brazos Valley, and we are excited to now offer this specific service closer to home.”

Mako SmartRobotics™ for Partial Knee replacement is a treatment option designed to relieve the pain caused by joint degeneration due to osteoarthritis that has not yet progressed to all three compartments of the knee. During surgery, the surgeon guides the robotic arm during bone preparation to execute the predetermined surgical plan and position the implant. By selectively targeting only the part of the knee damaged by osteoarthritis, surgeons can resurface the diseased portion of the knee while helping to protect the healthy bone surrounding the knee joint.⁴ Studies have shown that robotic-arm assisted partial knee replacement, leads to greater accuracy of implant position to plan compared to manual partial knee replacement procedures.^{12,13}

“St. Joseph Health continues to be an innovator and leader in health care in the Brazos Valley,” said Kim Shaw, St. Joseph Health Market President and CEO. “We are proud of our long-standing robotics and image-based surgery navigation programs, and now we are so proud to be the first to bring orthopedic robotic surgery to the community. We look forward to our tradition of providing industry-leading health care practices, while also providing our patients with compassionate and comprehensive care.”

About St. Joseph Health: St. Joseph Health is a member of St. Luke’s Health and part of CommonSpirit Health, the largest Catholic health system and the second-largest nonprofit hospital chain in the United States. Since 1936, St. Joseph Health has been the Brazos Valley’s leader in providing high-quality, patient-centered health care. Our expansive network encompasses five hospitals, including St. Joseph Health Regional Hospital in Bryan, College Station Hospital, Madison Hospital, Grimes Hospital, and Burleson Hospital; two long term care facilities; an assisted living facility and multiple clinics. Regional Hospital is the highest-level trauma center in the Brazos Valley, ready to provide the most comprehensive and state-of-the-art trauma services, 24 hours a day, seven days a week. St. Joseph Health was the region’s first air medical service and the first in the region to be accredited as a Chest Pain Center and Primary Stroke Center. St. Joseph Health is an academic and clinical partner of Texas A&M Health Science Center, working together St. Joseph Health and the Texas A&M Health Network employ over 100 primary care physicians, specialists and advanced practice clinicians. To learn more, visit St-Joseph.org.

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*For the Mako Total Knee application, “cut less” refers to less soft tissue damage and greater bone preservation as compared to manual surgery.^{3,4} For the Mako Total Hip and Partial Knee applications, “cut less” refers to greater bone preservation as compared to manual surgery.^{1,2,5}

IMPORTANT INFORMATION

Hip & Knee Replacements

Hip joint replacement is intended for use in individuals with joint disease resulting from degenerative and rheumatoid arthritis, avascular necrosis, fracture of the neck of the femur or functional deformity of the hip.

Knee joint replacement is intended for use in individuals with joint disease resulting from degenerative, rheumatoid and post-traumatic arthritis, and for moderate deformity of the knee.

Joint replacement surgery is not appropriate for patients with certain types of infections, any mental or neuromuscular disorder which would create an unacceptable risk of prosthesis instability, prosthesis fixation failure or complications in postoperative care, compromised bone stock, skeletal immaturity, severe instability of the joint, or excessive body weight.

Like any surgery, joint replacement surgery has serious risks which include, but are not limited to, pain, infection, bone fracture, change in the treated leg length (hip), joint stiffness, hip joint fusion, amputation, peripheral neuropathies (nerve damage),

circulatory compromise (including deep vein thrombosis (blood clots in the legs)), genitourinary disorders (including kidney failure), gastrointestinal disorders (including paralytic ileus (loss of intestinal digestive movement)), vascular disorders (including thrombus (blood clots), blood loss, or changes in blood pressure or heart rhythm), bronchopulmonary disorders (including emboli, stroke or pneumonia), heart attack, and death.

Implant related risks which may lead to a revision of the implant include dislocation, loosening, fracture, nerve damage, heterotopic bone formation (abnormal bone growth in tissue), wear of the implant, metal and/or foreign body sensitivity, soft tissue imbalance, osteolysis (localized progressive bone loss), audible sounds during motion, and reaction to particle debris. Hip and knee implants may not provide the same feel or performance characteristics experienced with a normal healthy joint.

The information presented is for educational purposes only. Speak to your doctor to decide if joint replacement surgery is appropriate for you. Individual results vary and not all patients will return to the same activity level. The lifetime of any joint replacement is limited and depends on several factors like patient weight and activity level. Your doctor will counsel you about strategies to potentially prolong the lifetime of the device, including avoiding high impact activities, such as running, as well as maintaining a healthy weight. It is important to closely follow your doctor's instructions regarding post-surgery activity, treatment and follow-up care. Ask your doctor if a joint replacement is right for you.

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