Covenant Health's Orthopedics Services has reached a new level in surgical precision with the acquisition of the RIO® Robotic Arm Interactive Orthopedic System from MAKO Surgical Corp. This pioneering technology enables Covenant Health orthopedic surgeons to perform MAKOplasty® robotic-arm assisted partial knee replacement and total hip replacement surgery with consistent, reproducible surgical precision. Covenant Health is the first hospital in West Texas to offer this highly advanced robotic-arm assisted surgical technology.

MAKOplasty® potentially offers the following benefits to patients:

- Improved surgical outcomes
- Improved accuracy and alignment of implants
- Sparing of healthy bone
MAKOPLASTY® PARTIAL KNEE REPLACEMENT

MAKOplasty® partial knee replacement is a treatment option for adults living with arthritis in either the medial, patellofemoral or lateral compartments of the knee. It can also be performed as a bicompartamental procedure on both the medial and patellofemoral portions of the knee.

As a potential treatment alternative to total knee arthroplasty (TKA) or manual partial knee replacement, MAKOplasty® partial knee replacement results in:

- A more rapid return to daily lifestyle and activities when compared to TKA
- Greater accuracy of implant positioning than what is achieved using conventional instrumentation
- A more natural feeling knee following surgery when compared to TKA

By integrating robotic arm technology into the operating room, patients experience improved outcomes through increased accuracy in implant placement and alignment.

MAKOPLASTY® TOTAL HIP ARTHROPLASTY

MAKOplasty® Total Hip Arthroplasty is performed using the RIO® robotic arm system and is indicated for patients suffering with arthritic or degenerative joint disease.

This procedure is designed to bring a new level of reproducible precision to total hip surgery. Accurate alignment and positioning of hip implants are critical factors in hip replacement procedures.

Unfortunately, acetabular cup placement can be challenging using traditional manual techniques. Massachusetts General Hospital recently reported in Clinical Orthopaedics and Related Research that of 1,823 hip replacement patients treated during a sustained period of study, only 50 percent had acetabular cups positioned in the desired range.

The RIO® system provides patient-specific, three-dimensional modeling for pre-surgical planning based on a pre-operative CT scan of the patient’s hip. During surgery, the system provides real-time data to help the surgeon place the implants within +/- 5 degrees for inclination and version and +/- 2mm for center of rotation. St. Joseph Hospital orthopedic surgeons use the robotic arm – which provides tactile, visual and auditory guidance – for acetabular reaming and cup impaction, which can enable a new level of accuracy for cup placement.

WORKING TOGETHER WITH REFERRING PHYSICIANS

The Covenant Health Orthopedics Services utilizes a comprehensive team approach in providing optimal care for your patients. This commitment to patient care and to partnering with referring physicians has resulted in national acclaim for the Orthopedics Services. For more information on MAKOplasty® or to refer a patient for a diagnostic evaluation, please call (806)725-0514 or visit www.covenanthealth.org/mako.