

HEALTHY LIVING

# CORI Technology

“Revolutionary Next Step” in robotic-assisted joint replacement

A new hand-held robotic-assisted surgical system at Jupiter Medical Center is revolutionizing knee replacement surgery. The new Smith & Nephew CORI Surgical System enables doctors to personalize the fit of every knee based on each patient’s unique anatomy.



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Dr. Andrew Noble, a board-certified and fellowship-trained hip and knee replacement surgeon affiliated with Jupiter Medical Center, describes the CORI as a 3-D modeling system that creates a unique, real-time image of each patient’s knee. This allows surgeons to shape a new joint and align bones and tissues accurately without the need for a pre-surgical MRI or CT scan.

CORI leverages a portable, hand-held surgical device for precise control, specificity and agility during a knee replacement procedure. It joins Stryker Mako SmartRobotics and DePuy Velys Robotic-Assisted Solution systems already used in the hospital’s surgical arena for orthopedic and joint replacement surgeries.

“As a surgeon, it’s great to have the ability to do surgeries at a hospital where we have three different robotic systems for knee replacements,” says Dr. Noble. “We have the capability to decide which robot



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is best in each surgeon’s hands, based on their training and their preferences. That speaks volumes about Jupiter Medical Center’s position at the forefront of investing in technology.”

Dr. Nobel says the CORI allows for real-time planning in the operating suite for personalized surgery bone-shaping features so that the components of the new artificial knee are individually measured, shaped and crafted.

“It’s almost like being a fine cabinet maker or craftsman,” says Dr. Noble, who

notes that robotic orthopedic surgery was not available during his medical training. “As we’ve increased our skills with knee replacements, we understand it’s not just about cutting the ends of the bone and installing these new knees. Your ligaments, muscles and tendons play an important role in how your knee moves, bends and stabilizes the leg. This is where the robot fits in: creating a personalized plan for each patient’s anatomy.”

Surgeons receive data from six different angles that each new knee is optimal-

ly positioned for the patient’s bone structure, balance, stability and flexibility.

“It’s hard to do this manually, but on the computer, we can dial this in and plan for nuances in small increments of movement to match each patient’s knee kinematics and replicate what the natural knee does,” Dr. Noble says. “We can then use all of this data to design how we’re going to replace the knee with a new joint replicating how each patient’s knee normally moves.”

Before the introduction of robotic-assisted orthopedic surgery, knee replacement specialists would cut the patient’s bones above and below the deteriorated knee at pre-specified angles and then either manually release or tighten the surrounding ligaments and tissues to make the new artificial joint fit.

“I’ve been performing knee replacements now for 17 years, and I’ve witnessed the ongoing technology revolution in robotic-assisted orthopedic surgery,” notes Dr. Noble. “We’ve blended the technology now to replicate what a replacement knee is supposed to do for the patient. It’s still artificial, but it gives the patient a sense of a normal knee for movement, flexibility and stability.”

For information about orthopedic knee surgery options, call The Anderson Family Orthopedic and Spine Center of Excellence at Jupiter Medical Center and contact the Orthopedic Navigator at 561-263-3633. ■

## Conquering Joint Pain with Robotic Precision and Surgical Excellence

### Robotic-assisted Joint Replacement Surgery

With hip or knee pain, everyday activities may be difficult and painful to perform. At the Center for Joint & Spine Care at Palm Beach Gardens Medical Center we offer innovative solutions to relieve joint pain including many minimally invasive robotic-assisted joint replacement options.

With a fleet of surgical robots to choose from, including the ROSA® Knee System, Mako SmartRobotics™, CORI™ Surgical System, and NAVIO™ Surgical System, your surgeon will create a personalized joint replacement surgical plan designed for greater precision and fewer incisions, along with less pain and a quicker recovery.

#### Benefits may include:

- Less Pain
- Quicker Recovery
- Shorter Hospital Stay
- Less Blood Loss



Total Hip & Knee Replacement Certification



Scan the QR code or call 855.773.3693 to speak to our Orthopedic Service Line Director.



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