

Spine Surgery



March 2017

News from
Lourdes Health System

Today



Pre-planning, Robotics Take Guesswork Out of Spine Surgery

Spinal fusions have always come with a certain amount of risk and considerable recovery time, as well as radiation exposure in the operating room. Applying the advantages of stereotaxis, three-dimensional imaging, computer pre-planning and robotics, Lourdes orthopedists are significantly overcoming those concerns. As the first surgeons in South Jersey to use the Mazor guidance system, they are providing spine surgery with smaller incisions, shorter operative times, less X-rays, briefer hospitalization, reduced pain, faster recovery and lower complication rates.

“Spinal surgery has little room for error,” said orthopedic surgeon Jeffrey R. Gleimer, DO, who is leading use of the system at Lourdes Medical Center of Burlington County. “Increased accuracy is especially critical when you are millimeters away from nerves, major blood vessels and other vital structures. This type of technology allows surgeons to operate more effectively and safely.”

Model, Synch, then Operate—for Less Invasiveness

With Mazor Robotics’ latest system:

- The team plans the spine surgery using a 3-D model based on the patient’s CT scans.
- The surgeons rigidly attach a mounting platform with coordinated reference points to the patient’s spine. The system then matches the pre-operative plan with OR X-ray images of the patient’s spine.
- Once this sync is complete, the system guides a robotic arm along the spine to help the surgeon pinpoint placement of tools and screws with less disruption of soft tissue to reach these locations.



Advanced 3-D pre-planning permits minimally invasive robot-guided spine surgery.



The Mazor mounting platform guides spine surgeons to millimeter accuracy.

“This robotic system takes complications such as infection and surgical errors down to a near negligible rate,” says Dr. Gleimer, who trained at the Southern California Orthopedic Institute in Los Angeles with some of the nation’s leading spine surgeons.

Foresight to Shift to a New Era in Spine Planning

The Lourdes spinal surgery team uses the Mazor system at Lourdes Medical Center of Burlington County (*see page 2*) for a range of procedures beyond thoracic and lumbar spinal fusion, including biopsies and reconstructions for scoliosis and spondylolisthesis. The team also notes that the system provides for: increased accuracy of screw and other hardware placement, compared to freehand spine surgery; patient mobility the day of surgery, and hospitalization of only a few days; a small fraction of the previous radiation exposure for OR team and patients; and a recovery time of just a few weeks rather than months.

“The cost of this surgery is comparable to conventional surgery, but the system is a significant investment for a medical center,” said Dr. Gleimer. “Mazor was looking for a hospital that was ready to take its spinal program to the next level, and Lourdes had the foresight to see that the technology was worth it and make the commitment.”

Lourdes Concentrates Orthopedic Surgery at Willingboro Hospital

Lourdes' new capabilities in robotic, minimally invasive spine surgery are an aspect of its overall expansion of orthopedic services. To enhance the surgical aspects of these services, the system will now concentrate inpatient orthopedic care at Lourdes Medical Center of Burlington County in Willingboro, NJ. The newly designated Orthopedic Surgery Center at the hospital will bring surgical procedures to a single operating room facility, and inpatient care—including for acute injuries—to a single orthopedics-only unit.

"In my experience, concentrating staff and facility resources in this way makes for better patient care and outcomes," said Sean McMillan, DO, chief of Orthopedic Sports Medicine at Lourdes Medical Center of Burlington County.



Lourdes orthopedic surgeon Kristen Herbst, DO, performs a knee procedure at the new Orthopedic Surgery Center.

The staff focuses on returning the post-surgical function of patients as promptly as is prudently and safely possible. For example, a certain amount of immobilization is necessary for healing and stabilization after a spinal fusion, even when pedicle screws are used instead of bone grafts. But with a knowledgeable, experienced orthopedic staff managing this transition, patients can stand and move on the first day after surgery and continue the steps and instructions on mobilization over the initial days at home.

The care system at Lourdes Burlington is likewise set up for more convenience for patients undergoing same-day surgery. Patient flow and recovery space is designed for orthopedic care, and dedicated orthopedic nursing serves both inpatient and outpatient procedures.

Patient-oriented features at the center also include an ongoing series of educational sessions about joint replacement and other orthopedic surgical topics. Meanwhile, Lourdes is collaborating with new physician practices to complement its orthopedic surgery team in providing top-notch orthopedic care to the community.

"Patients have an expectation for this kind of specialized care and unit," said Dr. McMillan, who notes that the emphasis that a center such as this can place on post-operative care makes for that faster return to function that patients are looking for. "This is the way things need to be done, and Lourdes is ahead with this kind of care." 

A publication of: Lourdes Health System

1600 Haddon Avenue • Camden, NJ 08103 • www.lourdesnet.org

1-888-LOURDES (1-888-568-7337)

AVP, Communications: Carol Lynn Daly

Publications Manager: Josh Bernstein • Writer: Russ Allen