State of-the-art imaging system provides safer, more precise spinal surgery at Bridgeport Hospital

Patients with spinal injuries are receiving safer, more precise surgical treatment, thanks to the new O-arm/Stealth Station Navigation system at Bridgeport Hospital, one of the first hospitals in Connecticut to use the state-of-the-art imaging system.

The system is a major advancement over previous technology in that it provides real-time 3D images of the surgical site—including surgical instruments—as procedures are taking place. As the name suggests, the donut-shaped O-arm can rotate around the patient, providing images from many angles. Computer-assisted surgery ensures safety and accuracy by:

- guiding surgeons through the safest route to the surgical site
- giving surgeons a broader, multi-angle view of the site and
- confirming the placement of instruments and hardware (such as pedicle screws in the spine) during surgery in real time

The system can also take images from traditional sources such as X-rays, CT scans, MRIs and ultrasounds and transform them into 3D images to use with the real-time guidance images taken in the operating room during the procedure.

After falling and injuring himself, Joseph Camillo of Milford had four fractures in his neck repaired by Bridgeport Hospital Chief of Neurosurgery Kenneth Lipow, MD, in July, using the O-arm system. The injury left Camillo without the ability to move his head, right arm, right leg and both hands.

“This was a potentially fatal injury,” Dr. Lipow explains. “The location of the uppermost fractures was very close to the arteries that feed the brain stem. Repairing the fractures without the precision guidance of the O-arm/Stealth Station would’ve been nearly impossible and extremely risky.”

(more)
Fortunately for Camillo, the surgical procedure was successful. It saved his life and he began physical therapy with improved ability to move his head, right arm, right leg and both hands.

Chantel DiJulio of Trumbull picked up a bag of wood chips in her yard and woke up the next day in “excruciating” pain. An MRI revealed multiple herniations (bulges) in her spinal discs and severe narrowing of the spinal canal.

“I couldn’t even bend down to use the sink,” DiJulio says.

Guided by the O-arm/Stealth Station system, orthopedic spinal surgeon John Awad, MD, performed a new type of less invasive spinal procedure to address her symptoms.

“The sophisticated guidance capabilities of the O-arm/Stealth Station system help us perform spinal surgeries with greater precision than ever before,” says Dr. Awad. “Not only are the procedures safer for the patient, we now have the ability to do less invasive procedures, which minimizes post-operative pain and increases the rate of recovery.

“I feel wonderful now,” says DiJulio, whose treatment is continuing with physical therapy. “The surgery has made a tremendous difference.”

For more information about, or a referral to, a Bridgeport Hospital-affiliated neurosurgeon or orthopedic surgeon, call 1-888-357-2396.

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