



## Back in Action: Innovations in Spine Care

By **Kim Ranegar Times Correspondent** | Posted: **Monday, August 29, 2011 12:00 am**

It might be a sharp stab. It might be a dull ache. But sooner or later, eight out of 10 of us will have back pain, according to the National Institutes of Health. Yet, don't assume an aching back will bring you to your knees or extensive surgery is inevitable. Today's innovations in spine care offer many options for pain management and minimally invasive techniques that can have you back on your feet faster than imagined just a decade ago.

"In fact, less than 5 percent of patients with back pain will need surgery," said Dr. Nick Nenadovich, an orthopedic spine surgeon with Lakeshore Bone & Joint Institute. "These days we have a lot of modalities to treat back pain without surgery."

Innovations in spine treatment begin with tools for diagnosing back problems. "Often finding the exact source of the pain can be very difficult," said Dr. Shaun Kondamuri, an interventional spine specialist and director of Midwest Interventional Spine Specialists. "Just this morning we helped pinpoint the problem with a patient by using a selective nerve route block as a diagnostic procedure. Using X-ray guidance, we're able to very precisely put a local anesthetic on just one nerve. If 100 percent of the patient's pain goes away, then we know that's the source of the pain. It's a big deal to know exactly."

Discography is being used more frequently as a diagnostic tool to determine precisely where pain originates.

"Sometimes you'll see a patient and anatomically two or three discs may appear to be bad on an MRI. Yet maybe only one is causing pain. We can use discography to answer questions about which disc or discs are the source of the pain and which may need surgery," Kondamuri said.

Discography involves injecting a contrast dye into the center of a disc or discs using fluoroscopy to provide real-time moving images. If a disc is abnormal, the contrast liquid may spread from the tear, revealing the precise area of damage. "We're using discography much more over the last five years. Rush and University of Chicago both send patients to us for help in diagnosis," Kondamuri said.

Another nonsurgical innovation is the use of spinal cord stimulators, implanted into the back, to alleviate chronic back pain.

"The stimulator changes the signal, modifying the painful signal the patient feels in their brain. It actually intercepts the signal and replaces the painful sensation with a pleasant sensation," Kondamuri said.

A recent patient came to Kondamuri after trying many other options, with no relief.

"Here's a young man who is now disabled. He's not able to work or really do anything because of back and leg pain," Kondamuri said. A spinal cord stimulator was able to remove his pain. "Now he's getting more fit and will be able to be back into a normal job. He won't be an iron worker, but he can walk and lift 30 to 50 pounds. His outlook is really improved."

Though the stimulators don't change a person's actual anatomy, the ability to reduce pain can change a patient's outlook dramatically, allowing them to resume active lives, Kondamuri said.

For patients whose best option is surgery, there is good news about innovations in minimally invasive spine surgery. Using new technology and knowledge of the spine, minimally invasive techniques mean less damage to surrounding soft tissues, less pain, smaller incisions, quicker recovery and improved function.

As an orthopedic surgeon, Nenadovich can use these new techniques to offer relief to patients locally. In coming weeks, he'll be among the first surgeons in the Midwest to perform a new fusion technique at the lowest section of the spine. A new instrument and surgical plate are making the procedure possible. The new procedure is particularly promising because it requires a smaller incision and fewer screws than traditional techniques and promises a much faster recovery time because it preserves more of the surrounding muscle tissue, Nenadovich said.

"The recovery time for this new procedure is typically shorter by at least 50 percent. So if a typical recovery for old-fashioned fusion is in the ballpark of six months, now we're at three months," he said.

Kondamuri and Nenadovich want to dispel the myth that you must go to a large teaching hospital for the latest, most innovative care. Both have been trained at top schools — Kondamuri did his fellowship in pain management at Yale and Nenadovich did his residency at the University of Chicago and fellowship at State University of New York's Upstate Medical Center.

"We can offer the same individualized care here that you can get in Chicago or beyond. We've been trained at top hospitals. We can do anything that you'll find in a university setting," Kondamuri said.