

# The Spine Segment

Spring 2006



## Welcome

Welcome to the spring issue of spine news from the Indiana Spine Group's quarterly newsletter *The Spine Segment*. Each issue will provide you with a brief update on news, research and treatments related to the spine as well as any major news from Indiana Spine Group. If you are not yet a subscriber but wish to be, link to [subscribe me](#).

## Cutting Edge

### New FDA-Approved Spine Surgery for Lumbar Spinal Stenosis

In February 2006, Rick C. Sasso, M.D., was the first surgeon in Indianapolis to perform minimally invasive spine surgery for the treatment of lumbar spinal stenosis (LSS). The FDA recently approved the procedure, called X Stop®, which is described as "jacking up" the spine and providing fast relief for LSS.

The procedure involves surgically placing the X Stop, made of a titanium alloy, in the affected lumbar area of the spine. Once inserted, it decompresses the affected spinal canal area, which has narrowed as a result of LSS. The X Stop is designed to open up the canal and limit extension of the lumbar spine, taking pressure off of the nerves to the legs, thereby relieving symptoms.

"This new procedure fills a gap in the continuum of care that, until now, required my patients to make the leap from conservative therapies straight to invasive surgery," said Dr. Sasso, an orthopaedic spine surgeon with Indiana Spine Group.



*Rick C. Sasso, M.D.*

The current standard of surgical care for LSS is laminectomy, an invasive procedure that requires general anesthesia and removal of parts of the bone and tissue in the spinal canal. The X Stop procedure is a minimally invasive procedure with rapid patient recovery. It has been used in Japan and Europe since 2001 to successfully treat more than 4,000 patients.

## Understanding Spinal Tumors

### Metastatic Spinal Tumors Expected to Increase

In the United States, approximately 18,000 patients are diagnosed with spinal column tumors, or neoplasms, each year. Although primary spinal cord tumors are relatively rare, secondary spinal cord tumors are more common and are on the rise due to the prevalence of longer-term cancer survivors. It is estimated that up to 70% of cancer patients harbor secondary spinal disease. The most common cancer types

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to spread to the spine include lung, breast, renal, prostate and thyroid.

Metastatic bone lesions are most commonly located in the lumbar region. However, patients are most symptomatic in the thoracic region due to the size of the thoracic spinal canal. Multiple lesions are present in 40% to 70% of symptomatic patients.

Patients may present with:

- neck or back pain or pressure that may be worse at night or in the morning and does not improve with rest;
- neurological problems such as weakness in the arms or legs, decreased sensation or numbness, change in bowel or bladder habits or impotence;
- nausea/vomiting, fever or chills;
- spinal deformity; or
- weight loss or fatigue.

According to Kenneth L. Renkens, Jr., M.D., a spine surgeon with the Indiana Spine Group, the physician should rule out other possible disorders, such as fracture, sore muscle, bone bruise, herniated disc, MS, a viral infection, or other possible causes. "Particularly if the patient has had cancer, a prompt evaluation is crucial, and an MRI is considered the best tool for diagnosing a spinal cord tumor," Dr. Renkens adds.

A biopsy can diagnose the precise type of tumor, but may not be needed if the tumor is metastatic. Among primary malignant spinal tumors, there are multiple types, from slow growing to aggressive. Each type affects different genders and ages from young children to the elderly, with varying survival rates.

Treatment of a malignant spinal tumor generally involves surgical resection when possible, followed by radiation therapy, and possibly chemotherapy. Outcomes are affected by the primary cancer type, the number of lesions, the presence of spinal cord compression, the patient's general health and other factors. Research shows that patients expected to live longer than 12 weeks should be considered surgical candidates, especially if they have severe pain or spinal cord compression, says Dr. Renkens.



*Kenneth L. Renkens, Jr., M.D.*

**For more information on spinal tumors or to refer a patient for evaluation, call Indiana Spine Group at 317.228.7000.**

## **Research Update**

### **Studies for Patients with Degenerative Disc Disease**

Rick C. Sasso, M.D., along with Kenneth Renkens, M.D., and Thomas M. Reilly, M.D., are participating in two new clinical trials for patients with degenerative disc disease (DDD). These trials are currently accepting new patients.

The first trial will use the FlexiCore® Intervertebral Disc to replace a degenerated disc in the lumbar spine. It is intended to permit motion of the treated segment, improve

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function and reduce back pain associated with degenerative disc disease (DDD).

**Criteria:** Patients diagnosed with DDD at segments between L1-L5/S1 that meet specific inclusion criteria will be randomized to receive the artificial disc or control. The second trial will use the Cervicore™ Intervertebral Disc Replacement to replace a degenerated disc in the cervical spine. This device is intended to permit motion of the treated segment and improve function.

**Criteria:** Patients diagnosed with cervical DDD that requires surgical treatment for symptoms and/or signs of cervical radiculopathy and/or myelopathy with or without axial neck pain. Patients must meet specific inclusion criteria and will be randomized to receive the artificial disc or control.

**For more information on these clinical trials, call Indiana Spine Group at 317.228.7000.**

## Spine Health Tips

### Vacation Time Can Lead to Back Injuries

Help your patients to avoid back and neck injuries as they prepare for vacations. Here are some luggage lifting and carrying suggestions:

- Do not over pack or carry bulky luggage. Pack fewer things in smaller bags and, if flying, check them.
- Find sturdy, light, easy-to-carry pieces. Wheeled luggage with handles is ideal.
- Carry pieces in both hands to balance weight. If carrying a heavy backpack, switch shoulders often. Backpacks should have two padded, adjustable straps.
- Do not twist when lifting or carrying luggage. Take your time, and don't carry for long distances.
- If lifting bags into an overhead compartment, first lift onto the top of the seat. Then with both hands, carefully lift into the bin.
- Get help with bags, if necessary, rather than risk injury.

## Fact Sheet

### Smoking and Spine Health - Reversing the Damage

If you have patients who smoke and who have back pain or other bone health issues, the following information may finally convince them to stop smoking and begin to reverse the damage that has been done. As a bonus, patients who are undergoing surgery can significantly improve their chances of a successful outcome if they stop smoking. Link to our [fact sheet](#), with research-based data that you can provide to your patients.

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## Pain Management Update

### Spinal Cord Stimulation: An Implantable System

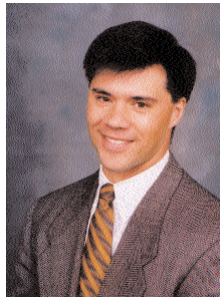
Do you have chronic pain patients for whom traditional pain therapies, physical therapy or even surgery, have not alleviated their pain? Indiana Spine Group interventional pain management specialist Jonathan P. Gentile, II, M.D., says that spinal cord stimulation (SCS) may be an effective next stop. Patients can use the device temporarily during a trial period to determine if it will be successful at blocking some or most of their pain.

Through SCS therapy, the device essentially uses electrical signals to block the pain signals moving up the spinal cord, says Dr. Gentile. It may be effective for patients with neuropathic or chronic pain from failed back syndrome or radiculopathy.

SCS therapy allows patients to temporarily test out how the device will feel if implanted permanently. If it is effective, patients will feel a tingling instead of pain. Successful SCS therapy generally means at least a 50% pain reduction. The result may allow the patient to reduce the amount of needed pain medication, and improve their mobility and quality of life.

Indiana Spine Group physicians who specialize in spinal diagnostics and therapeutics include Kevin E. Macadaeg, M.D., Daniel K. Nordmann, M.D., Jonathan P. Gentile, II, M.D., and John W. Arbuckle, M.D.

**For more information about this procedure or to make a referral, call Indiana Spine Group at 317.228.7000.**



*Kevin E. Macadaeg, M.D.*



*Daniel K. Nordmann, M.D.*



*Jonathan P. Gentile, II, M.D.*



*John W. Arbuckle, M.D.*

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## Surgical Update

### Cervical Radiculopathy

Pressure on the nerve roots in the neck, or cervical radiculopathy, can present with a number of symptoms, including pain, numbness or weakness in the shoulder, arm, wrist or hand. The most frequent causes are a herniated cervical disc, spinal stenosis or degenerative disc disease.



*Thomas Reilly, M.D.*

Spinal experts can perform sensory evaluations, neurological evaluation and in-office maneuvers to help diagnose the source of the problem. An MRI and CT scan may follow.

Treatments should begin with conservative therapies for six to 12 weeks. If the pain has not dissipated, surgical options should be explored, says Thomas Reilly, M.D., an orthopaedic spine surgeon at Indiana Spine Group. Surgery generally improves functioning and movement while also alleviating the pain. "Minimally invasive procedures are continuing to improve outcomes for patients and speed up the recovery time," adds Dr. Reilly.

In a recent study of 502 patients with cervical radiculopathy, 200 patients opted for outpatient spine surgery. The results were 92.8% had excellent/good outcomes where Worker's Compensation (WC) was not involved. Of cases where WC was involved, 77.8% had excellent/good outcomes. There were no infections or significant complications after outpatient surgery. Outcomes between inpatient surgical cases and outpatient cases were similar.

## Practice Update

As with many practices, Indiana Spine Group and its patients have benefited from having both a nurse practitioner (NP) and a physician's assistant (PA) on our staff. Both provide non-operative support, particularly with the initial patient evaluation and workup, ordering diagnostic testing and other follow-up and patient education.



*Alta Skelton, RN, MSN, NP*

Alta Skelton, RN, MSN, NP, works collaboratively with Rick Sasso, M.D., and independently treats patients, including prescribing medications. She also provides education to hospital staff on new surgical techniques and follow-up care. Ms. Skelton is active in research related to spinal treatment and surgery and is a contributing author.

Jodi Hetterman, PA, works alongside Kenneth Renkens, Jr., M.D., including assisting with patient evaluations, scrubbing in for surgery, and assisting with pre- and post-op care.



*Jodi Hetterman, PA*

Both of these valued team members help Indiana Spine Group to provide excellent communication and comprehensive spinal care to all our patients.

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## Out & About

Three Indiana Spine Group physicians—Rick Sasso, M.D.; Kevin Macadaeg, M.D.; and Daniel Nordmann, M.D.; recently helped author “Selective Nerve Root Injections Can Predict Surgical Outcome for Lumbar and Cervical Radiculopathy: Comparison to Magnetic Resonance Imaging.” This article was published in the December 2005 issue of the *Journal of Spinal Disorders and Techniques*. [Link to article](#).

Kevin Macadaeg, M.D., presented “Diagnostic Spinal Injections and Vertebroplasty,” on March 15, 2006, to the American Academy of Neurological Surgeons in Orlando, Fla.

In mid-March, the new FDA X-Stop Spinal Procedure was featured on RTV6 (channel 6) with health reporter Stacia Matthews and WTHR (channel 13) with health reporter Anne Marie Tiernon. Rick Sasso, M.D., was interviewed for this story.

Kevin Macadaeg, M.D., was interviewed by health reporter Stacia Matthews with RTV6, about snow shoveling tips for the spine. This story aired on the day of Indy’s spring snowstorm in mid-March.

## Referrals

To refer patients or schedule appointments for our Indianapolis and Anderson locations, call 317.228.7000 or toll-free 866.947.7463. For our Kokomo office, call 765.236.8700.

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*Indiana Spine Group is a premier provider of medical and surgical care of the spine. Using the most advanced diagnostic and treatment tools available, we treat individuals of all ages. We provide comprehensive spine treatment, including orthopaedic spine surgery, neurosurgical spine surgery and non-operative spine treatments.*

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