

Meet Dr. Lipani

Dr. Lipani is the founding Director of **Princeton Neurological Surgery Spine Institute** and the **JD Lipani Radiosurgery Institute**. He previously served as the founding Director of the Institute for Neurosciences at Capital Health in Trenton, NJ as well as Capital's CyberKnife Radiosurgery Program of the Penn Cancer Network. Dr. Lipani also served as a Clinical Instructor of Neurosurgery at Stanford University Hospitals and Clinics and is currently an Adjunct Clinical Assistant Professor of Neurosurgery at



Thomas Jefferson University Hospital.

Dr. Lipani received his training in neurosurgery at Thomas Jefferson and Children's Hospital of Philadelphia of the University of Pennsylvania. He spent several years at the Delaware Valley Regional Spinal Cord Injury Center at Jefferson, one of the nation's 16 centers of excellence for spinal disorders and

participated in the combined neurosurgical and orthopedic spine fellowship program. He completed a fellowship at NYU in Neurosurgery with a focus on complex spinal surgery which remains a significant part of his current practice. Dr. Lipani also completed a fellowship in Neurosurgical Oncology and CyberKnife Radiosurgery at Stanford University Hospital and Stanford Cancer Institute. Dr. Lipani received extensive training in CyberKnife radiosurgery under John R. Adler, MD, inventor of CyberKnife and also received specialized post-residency training in Gamma Knife radiosurgery under L. Dade Lunsford at the University of Pittsburgh, the birthplace of the North American Gamma Knife.

Commonly Treated Conditions:

- Spinal Stenosis
- Herniated Discs
- Cervical Myelopathy
- Spinal Tumors
- Degenerative Disc Disease
- Spinal Deformity and Instability
- Spondylolisthesis

Dr. Lipani has lectured and authored numerous peer-reviewed abstracts, articles, and book chapters on brain and spine surgery. He routinely performs image-guided brain surgery, complex and minimally invasive spinal surgery and noninvasive brain and spine radiosurgery.

Dr. Lipani is Board Certified by the American Board of Neurological Surgeons, a Fellow of the American Association of Neurological Surgeons, and a Fellow of the American College of Surgeons.

We Offer Revision Spine Surgery!

Revision spinal surgery is considered when a prior surgery fails to correct the existing problem or when a new problem occurs after surgery. Factors that can necessitate revision spinal surgery include inadequate decompression of the spinal cord and/or nerve roots, failed spinal fusion, improper diagnosis, or the development of post-operative complications.

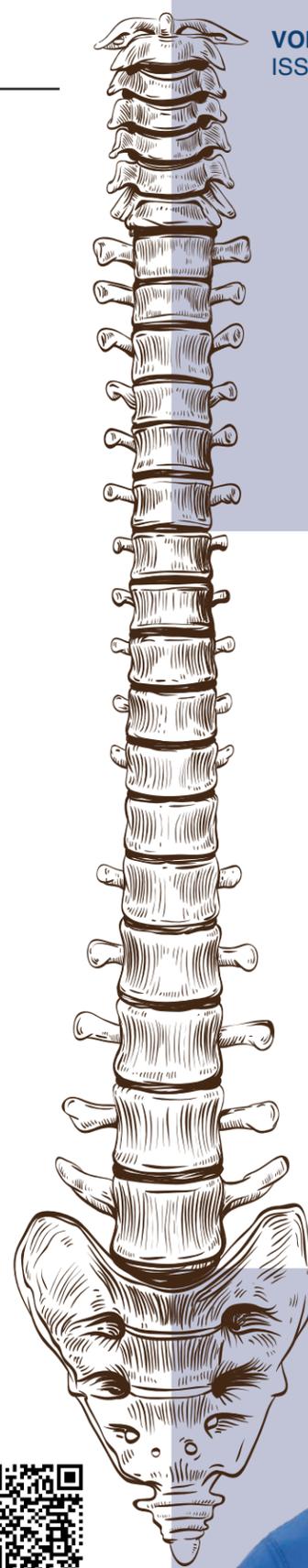
Revision spinal surgery may also be related to the reherniation of a disc, infection, hardware failure, non-surgery related spine degeneration, acquired instability, or adjacent segment degeneration.

The decision to undergo revision surgery depends on the diagnosis made after the initial failure. Revision spinal surgery is much more complicated than initial spinal surgery and should only be performed by highly qualified spine surgeons. At Princeton Neurological Surgery, Dr. Lipani often corrects patients who've suffered failed spine surgery at other institutions and his patient outcomes far exceed the national average.



Princeton Neurological Surgery
SPINE INSTITUTE

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VOLUME 1
ISSUE 1



Princeton Neurological Surgery

SPINE INSTITUTE

EXCELLENCE IN SPINE SURGICAL CARE

Our Neurosurgeon-In-Chief, Dr. John Lipani is a board certified fellowship-trained specialist in **complex** and **minimally invasive** spine surgery. Dr. Lipani is also a leading expert in **noninvasive** radiosurgery for treatment of spinal tumors with no incisions, no anesthesia and no recovery time. Commonly treated conditions include *herniated discs, spinal stenosis, spinal tumors, spinal deformity, spinal cord injury, degenerative disc disease* and *sciatica*. Dr. Lipani combines state-of-the-art technology with unparalleled training and experience to achieve the best results!

**COMPLEX INSTRUMENTED
SPINE SURGERY**

**MINIMALLY INVASIVE
SPINE SURGERY**

**NON-INVASIVE
SPINE RADIOSURGERY**

“We restore healthy spine function and preserve quality of life!”

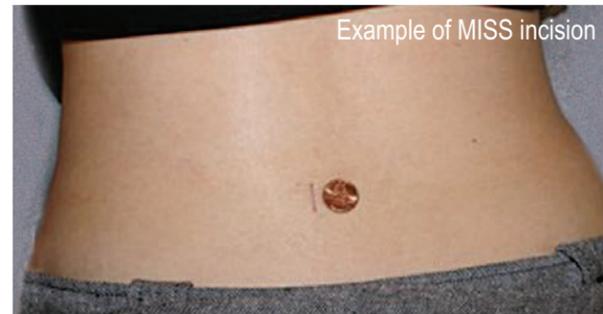
Dr. Lipani is the founding Director of the **Princeton Neurological Surgery Spine Institute**. A nationally recognized expert in spinal surgery, Dr. Lipani uses the latest techniques to preserve the integrity of the spinal column and restore healthy spine function. Treatment options include invasive, minimally invasive and noninvasive approaches to common or complex spinal conditions. **Princeton Neurological Surgery Spine Institute** combines state-of-the-art technology with unparalleled clinical expertise and experience.

John D. Lipani, MD, PhD, FAANS, FACS

HOSPITAL AFFILIATIONS: University Medical Center of Princeton, Plainsboro, NJ • Robert Wood Johnson University Hospital, Hamilton, NJ • Saint Peter's University Hospital, New Brunswick, NJ • Capital Health, Regional Medical Center, Trenton, NJ • Capital Health, Hopewell Campus, Pennington, NJ • Community Medical Center, Toms River, NJ

Why choose Princeton Neurological Surgery Spine Institute?

Your healthcare deserves the latest medical technology combined with the most advanced clinical expertise. At Princeton Neurological Surgery Spine Institute, Dr. Lipani has extensive formal training and experience using the most advanced spine surgery techniques. Our goal is to restore neurologic function and help patients regain a healthy quality of life. We use only the best and most trusted technology to ensure optimal results. As a board-certified fellowship-trained neurological surgeon, Dr. Lipani has the clinical expertise to protect the integrity of the spinal column and treat injury to the nervous system.



What is Minimally Invasive Spine Surgery?

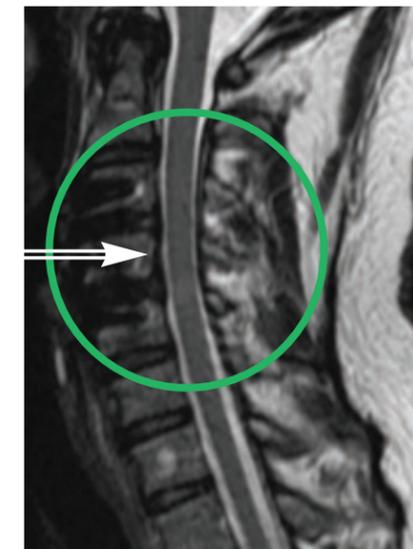
Minimally invasive spine surgery (MISS) allows surgeons to access deep spinal structures through small or minimally invasive incisions. This surgery is possible with the use of fluoroscopic (real time x-ray) image guidance that helps the surgeon navigate through small openings. The result is smaller incisions with less soft tissue manipulation and less blood loss compared to conventional open surgery. Smaller incisions mean more comfortable and faster recovery periods. Patients often require less post-operative pain medication and are likely to return to their normal daily activities sooner. Dr. Lipani offers minimally invasive spine surgery when appropriate for his patients to help them make a speedy recovery.



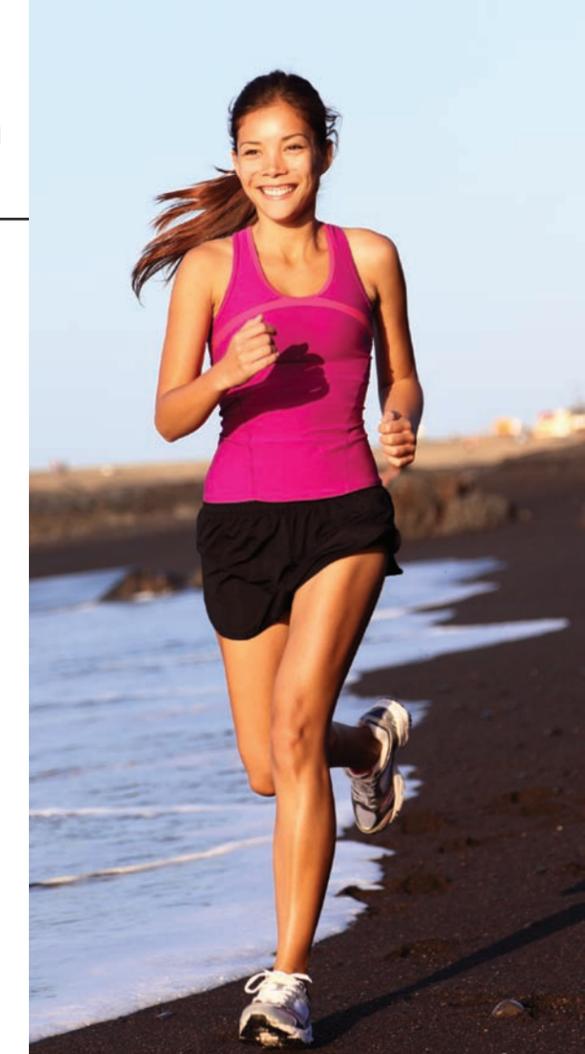
Complex Instrumented Spinal Surgery...



- Before Surgery**
- Herniated cervical discs
 - Spinal cord compression
 - Kyphotic deformity
 - Severe neurologic deficit



- After Surgery**
- Herniated discs removed
 - Spinal cord decompressed
 - Cervical lordosis restored
 - Preserved neurologic function



What is Radiosurgery?

Radiosurgery is a bladeless technology that uses high dose radiation delivered to precise locations for purposes of treating tumors in and around the spine. Radiosurgery can be used to treat non-cancerous or benign tumors (e.g., schwannomas, meningiomas, neurofibromas, AVM's) or metastatic tumors that spread from distant sites such as the lung or breast. Radiosurgery has an advantage over traditional radiation in that it can be used to deliver more effective radiation doses to tumors without damaging nearby spinal tissue. The result is stopping tumor growth with reduced side effects. Radiosurgery can often be used as an alternative to open conventional spine surgery. It is generally delivered in 1-5 consecutive daily treatment sessions on an outpatient basis.



In affiliation with: www.RadioSurgeryInstitute.com

With Radiosurgery, complex spinal surgery can be avoided.

51 y/o female - metastatic lung cancer to the spinal chord with lower extremity motor and sensory loss (yellow arrow)



BEFORE
CyberKnife radiosurgery



AFTER
CyberKnife radiosurgery

- Stop tumor growth
- Restore lower extremity function
- Avoid spinal chord injury
- Avoid spinal surgery
- Preserve quality of life

“
Don't live
with chronic
pain. Find out
how we can
help!”

