Course Description
Join your colleagues at the NASS 13th Annual Evidence & Technology Spine Summit to explore surgical and medical/interventional topics on the latest technology and techniques. NASS has assembled expert faculty to present the most current thinking and evidence-based medicine in a relaxed and highly interactive setting to stimulate controversial discussion about the latest in spine care.

Surgical Course Directors
John G. DeVine, MD
Joshua E. Heller, MD
Alan S. Hilibrand, MD
Patrick C. Hsieh, MD, MS
Brandon D. Lawrence, MD
Jeffrey C. Wang, MD
Jim A. Youssef, MD

Medical Course Directors
Michael C. Geraci, Jr., MD, PT
Joshua D. Rittenberg, MD

Meeting Objectives
Upon completion of this conference, participants will gain strategies to:

- Review the specific pros, cons and scientific evidence regarding today’s newest cutting edge spinal technologies;
- Participate directly in open forum dialogues on critical spinal practice issues and scientific controversies with a panel of key experts in each area;
- Explain to patients the key indications and limitations of the newest and most fundamental spinal therapies available today through focused didactic and open debate formats;
- Evaluate the advantages and drawbacks of several new spinal technologies as they apply to cases commonly encountered in spinal surgical practice.
**Wednesday, February 22**
4:00-7:00 p.m.
Kokopelli Lobby
Registration

5:00-7:00 p.m.
White Pine Ballroom
**Joint Session:**  **Novel Technologies in Medical and Surgical Treatments**
**Moderator:**  John G. DeVine, MD and Jerome Schofferman, MD

Upon completion of this session, participants will gain strategies to:
- Define alternatives to opioid therapy for treatment of chronic pain;
- Refer to the advances in PEEK biomaterials used for interbody devices;
- Identify the current evidence regarding stem cell regenerative medicine;
- Know the current evidence regarding biologics in spine fusion;
- Describe the indications and outcomes of posterior facet based technologies for the cervical spine (D'Trax).

**Agenda**

5:10–5:30  Pain in the Post-Opioid Era: What is on the horizon?  
*TBD*

5:30–5:50  Can Nano Treated Surfaces Enhance Fusion  
*Jean-Jacques Abitbol, MD*

5:50–6:15  Stem Cells – Regenerative Medicine – How Close Are We?  
*TBD*

6:15–6:35  Novel Spine Biologics for Fusion – Where Are We Now?  
*Wellington K. Hsu, MD*

6:35–6:50  Posterior Facet-based Technologies (D'Trax): Technology Update  
*Jim A. Youssef, MD*

6:50–7:00  Question/Answer session with Panel

**Thursday, February 23**
7:00–7:05 a.m.
Kokopelli II & III
**Welcome/Introduction of Course Directors/NASS Education Update**

7:05–8:30 a.m.
Kokopelli II & III
**Joint Session:**  **Cervical Radiculopathy - Two Level Disease**
**Moderator:**  Joshua E. Heller, MD

Faculty will discuss how to treat the symptoms of multilevel radiculopathy, identify indications for the treatment of multilevel cervical radiculopathy, and address the best treatment based on patient and disease factors.
Upon completion of this session, participants will gain strategies to:

- Describe the natural history and medical management strategies to treat the symptoms of multilevel radiculopathy;
- Identify the indications for surgical treatment for multilevel cervical radiculopathy;
- Determine the optimal surgical treatment based on patient and disease factors for multilevel cervical radiculopathy.

**Agenda**

7:05-7:25 Medical Management: Options and Evidence
* TBD

7:25-7:45 Foraminotomy for Two Level Disease—The Original Motion Sparing Procedure
* Steven M. Theiss, MD

7:45-8:05 ACDF for Two Level Disease—Still the Gold Standard?
* Alan S. Hilibrand, MD

8:05-8:25 TDR for Two Level Disease—Evidence and Experience
* John G. DeVine, MD

8:25-8:30 Discussion, Question and Answer

8:30-9:00 a.m.
Kokopelli II & III

**Fireside Chats/Networking Break**

9:00–10:30 a.m.
White Pine Ballroom

**Medical Session:**  
Radiology for the Spine Specialist

Moderator: John J. McIntyre, MD

**Agenda**

9:00-9:15 2016 Update from the American College of Radiology: We Would Rather Use Each Other’s Toothbrush than Each Other’s Language
* John J. McIntyre, MD

9:15-9:30 Terminology: Examples of How These Changes Affect all Spine Specialists
* John J. McIntyre, MD

9:30-9:45 Need for Imaging Prior to Spinal Interventions: Is it Based on Standard of Care in Your Community?
* Michael B. Furman, MD, MS

9:45-10:00 Case Presentations: 2 Cases of How Important it is to Get the Terminology Correct
* Michael B. Furman, MD, MS and Michael C. Geraci, Jr., MD, PT

10:00-10:30 Discussion, Question and Answer
Surgical Session: Cervical Myelopathy Symposium
Moderator: Patrick C. Hsieh, MD, MS and Brandon D. Lawrence, MD

This symposium will cover the treatment as well as advanced diagnostic and imaging modalities for cervical myelopathy in addition to addressing the benefits and complications of anterior vs. surgical approaches.

Upon completion of this session, participants will gain strategies to:
- Recognize the natural history and indication for treatment for cervical myelopathy;
- Be familiar with advanced diagnostic and imaging modalities for cervical myelopathy;
- Recognize the benefits and complications of anterior versus surgical approaches for cervical myelopathy.

Agenda

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<tr>
<th>Time</th>
<th>Session Description</th>
<th>Speaker(s)</th>
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<td>9:00-9:10</td>
<td>Anterior vs. Posterior Approach for 3 or More Levels Cervical Spondylolitic Myelopathy</td>
<td>Andrew T. Dailey, MD</td>
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<td>9:10-9:20</td>
<td>Optimizing Treatment for Cervical Deformity with Myelopathy</td>
<td>Darrel S. Brodke, MD</td>
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<td>9:20-9:30</td>
<td>Diffusion Tensor Imaging (DTI) for Cervical Myelopathy: Does it Impact Management or Outcome?</td>
<td>Patrick C. Hsieh, MD, MS</td>
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<td>9:30-9:45</td>
<td>Motion Preservation in Cervical Myelopathy: What are the Options and Indications?</td>
<td>Wellington K. Hsu, MD</td>
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<td>9:45-9:50</td>
<td>Surgical Debate</td>
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<td>9:50-10:00</td>
<td>Case Presentation</td>
<td>Jean-Jacques Abitbol, MD</td>
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<td>10:00-10:10</td>
<td>Anterior Approach</td>
<td>R. Todd Allen, MD, PhD</td>
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<td>10:10-10:20</td>
<td>Cervical Laminoplasty</td>
<td>Wellington K. Hsu, MD</td>
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<td>10:20-10:25</td>
<td>Posterior Cervical Laminectomy and Fusion</td>
<td>Andrew T. Daily, MD</td>
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<td>10:25-10:30</td>
<td>Case Resolution</td>
<td>Jean-Jacques Abitbol, MD</td>
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<td>Discussion, Question and Answer</td>
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10:30 a.m.–4:00 p.m.

BREAK
4:00-5:30 p.m.
Kokopelli II & III
Surgical Session:  Lumbar Degenerative Symposium
Moderators: Jeffrey C. Wang, MD and Jim A. Youssef, MD

Faculty will address decision making for lumbar degenerative spine surgery, the treatment of lumbar spondylolisthesis, and anterior vs. posterior vs. lateral approaches to the lumbar spine.

Upon completion of this session, participants will gain strategies to:
- Apply spinopelvic parameters in the decision making for lumbar degenerative spine surgery;
- Be familiar with the data and controversies surrounding the treatment of lumbar spondylolisthesis;
- Recognize the pros and cons of anterior vs. posterior vs. lateral approaches to lumbar spine.

Agenda
4:00-4:10    Spinopelvic Parameters: How and Why I Apply it 1 or 2 Level Lumbar Degenerative Spine Disease
            Michael D. Daubs, MD
4:10-4:20    Spinal Fusion for Low Back Pain?
            Alpesh A. Patel, MD, FACS
4:20-4:30    Updates on Interspinous Devices in Lumbar Spine Surgery
            Joshua E. Heller, MD
            How I Do It: Treatment of L4-5 Spondylolisthesis with Spinal Stenosis
3:40-4:45    Case presentation
            Jeffrey C. Wang, MD
4:45-4:55    Decompression Only
            Daniel K. Resnick, MD, MS
4:55-5:05    MIS-TLIF
            W. Ryan Spiker, MD
5:05-5:15    Lateral Transpsoas Interbody fusion
            R. Todd Allen, MD, PhD
5:15-5:25    Posterior Open Decompression and Fusion
            Brandon D. Lawrence, MD
5:25-5:30    Discussion, Question and Answer

4:00-5:30 p.m.
White Pine Ballroom
Medical Session:  The Aging Spine: Focus on Prevention-Lumbar
Moderator: Michael C. Geraci, Jr., MD, PT

All too often we, as spine specialists, have focused our treatment at the end stage of the spinal disorders we treat. This session, however, will focus on what we can offer our patients as preventative measures and treatment in the early phase of their condition. We will discuss how to prevent recurrences or progression of the most common reason patients are out of work.
Upon completion of this session, participants will gain strategies to:

- Identify risk factors for spinal aging and what is inevitable versus lifestyle choices;
- Recognize determinants of reducible disc herniations and reduction of reoccurrences;
- Ascertain interventions that can hasten recovery and provide minimally invasive technologies.

4:00-4:20  Overview of Risk Factors for Spinal Aging and What is Inevitable Versus Lifestyle Choices
           Michael C. Geraci, Jr., MD, PT

4:20-4:40  Physical Therapy: Evidence-based vs. Experience-based Approach
           Ryan A. Tauzell, MA, PT, Cert. MDT

4:40-5:00  Injections: Do They Work? Risk vs. Benefit
           Michael B. Furman, MD, MS

5:00-5:20  New Technologies (Surgical)
           Carrie A. Diulus, MD

5:20-5:30  Discussion, Question and Answer

5:30-6:00 p.m.
Kokopelli II & III
Fireside Chats/Networking Break/ Après ski refreshments

6:00-7:30 p.m.
Kokopelli II & III
Joint Session:  Doctor Quality of Life: An Underappreciated Metric
Moderator:  Jerome Schofferman, MD

Many factors contribute or detract from a physician’s quality of life. Perhaps one of the most important and seemingly easily disregarded is the physician’s own overall health. Health is not just the absence of disease. Instead, it is a state of physical, mental and social well-being. However, staying healthy, enjoying work and having good work-life balance are difficult for many of us given the demands of providing medical care. Currently one-half of physicians report significant symptoms of burnout. The prevalence in orthopedists and neurosurgeons is even higher. Compounding the stress of work, many physicians do not eat as well as they know they should. Some fail to exercise regularly, have inadequate sleep, drink too much alcohol, and do not take specific steps to minimize their stress.

Faculty will review the effects of burnout on physician satisfaction and enjoyment, and address the effects burnout has on the physician’s physical health and quality of medical care. Additionally, faculty will discuss the role nutrition and diet have on overall health as well as the contribution of diet to the inflammatory process and perhaps some chronic diseases. Exercise related to the role it might play in dealing with stress and mood disorder will be discussed. And, if participants are still awake, faculty will conclude by addressing the role that sleep disturbance plays in overall health as well as performance at work and play.
Upon completion of this session, participants will gain strategies to:

- Acquaint the audience with the signs and symptoms of physician burnout and its prevalence;
- Review the effects of burnout on physician satisfaction and enjoyment, health and quality of medical care;
- Gain a better understanding of the roles that exercise and nutrition play in combating stress and mood disorder;
- Recognize the role sleep disturbance has on health and performance.

6:00-6:15  Burnout  
Jerome Schofferman, MD

6:15-6:30  Nutrition and Inflammation  
Carrie A. Diulus, MD

6:30-6:45  Exercise  
Matthew Smuck, MD

6:45-7:00  Sleep Deprivation  
Carrie A. Diulus, MD

7:00-7:15  Exercise II  
Matthew Smuck, MD

7:15-7:25  Mindful Patient Interactions  
Jerome Schofferman, MD

7:25-7:30  Discussion, Question and Answer

7:30-9:00 p.m.
The Cabin  
Welcome Reception

**Friday, February 24**

7:00-8:30 a.m.
Kokopelli II & III

**Joint Session: Paraplegic Pitfalls**

Moderator: John G. DeVine, MD and Jerome Schofferman, MD

Faculty will discuss the management and treatment of chronic pain after spinal cord injury, as well as how to identify Charcot spinal arthropathy and address its complexities.

Upon completion of this session, participants will gain strategies to:

- Describe the management strategies for the treatment of chronic pain after spinal cord injury;
- Identify the indications and outcomes for spinal cord stimulators in the treatment of chronic pain after spinal cord injury;
- Recognize Charcot spinal arthropathy in the patient with spinal cord injury and the implications in the untreated patient;
- Appreciate the complexities in surgical treatment of Charcot spinal arthropathy.
Agenda

7:00-7:20  Medical Management of Chronic Pain after SCI
           TBD
7:20-7:40  Indications and Outcomes for Spinal Cord Stimulators for Chronic Pain in SCI
           TBD
7:40-8:05  Charcot Spinal Arthropathy – Definition, Incidence and Treatment
           John C. France, MD
8:05-8:30  Surgical Management: Case Based Panel Discussion
           John G. DeVine, MD
           (Panel: John C. France, MD; Steven M. Theiss, MD; Brandon D. Lawrence, MD)

8:30-9:00 a.m.
Kokopelli II & III
Fireside Chats/Networking Break

9:00-10:00 a.m.
Kokopelli II & III
Surgical Session: MIS Symposium
Moderators: Patrick C. Hsieh, MD, MS and Joshua E. Heller, MD

This symposium will cover the indications for MIS, clinical benefits and limitations of MIS, and latest MIS techniques for spine surgery.

Upon completion of this session, participants will gain strategies to:
- Know appropriate indications for MIS;
- Recognize the clinical benefits and limitation of MIS;
- Be familiar with currently available and developing MIS techniques for spine surgery.

Agenda

9:00-9:10  Expandable Cages in MIS Surgery
           Wellington K. Hsu, MD
9:10-9:20  Robotic Spine Surgery: Is it Gimmick or is there Value?
           W. Ryan Spiker, MD
9:20-9:30  Image Guidance and Intra Operative Navigation for MIS
           Joshua E. Heller, MD
9:30-9:40  MIS for treatment of spine tumors
           Patrick C. Hsieh, MD, MS
9:40-9:50  Minimally invasive spine surgery for adult spinal deformity
           R. Todd Allen, MD
9:50-10:00 Discussion, Question and Answer

9:00-10:00 a.m.
White Pine Ballroom
Medical Session: Cervical Spondylosis/Stenosis
Moderator: Michael B. Furman, MD, MS

This session focuses on cervical symptom management and its challenges. We will highlight important history, physical exam, and imaging pearls to identify appropriate patient selection
for conservative vs minimally invasive vs emerging surgical care. Evidence-based and practical application of Physical Therapy will be shared. We will also address challenging and current management decisions regarding anticoagulation, contrast flow pattern recognition, the relative merits of fluoroscopy and ultrasound for cervical procedures as well as the need for advanced imaging (CT, MRI) prior to spine interventions.

Upon completion of this session, participants will gain strategies to:

- Highlight important history, physical exam, and imaging pearls to identify appropriate patient selection for conservative vs. minimally invasive vs. emerging surgical care;
- Recognize the evidence-based and practical applications of physical therapy for cervical-related symptomatology;
- Address challenging and current management decisions regarding anticoagulation prior to spinal interventions;
- Know the relative merits of fluoroscopy and ultrasound for cervical procedures and the need for advanced imaging (CT, MRI) prior to spine interventions.

Agenda
9:00-9:10  Differential Diagnosis, Patient Selection and Advanced Procedural “Pearls”  
Michael B. Furman, MD, MS
9:10-9:20  Imaging: Differential Diagnosis, Masqueraders, Correlation of Findings with Symptomatic Disease  
John J. McIntyre, MD
9:20-9:30  Physical Therapy: Evidence-based vs. Experience-based Approach  
Ryan A. Tauzell, MA, PT, Cert. MDT
9:30-9:40  Cervical Epidural Steroid Injections: Do the Benefits Outweigh the Risks?  
Venu Akuthota, MD
9:40-9:50  New Technologies (Surgical)  
Carrie A. Diulus, MD
9:50-10:00  Discussion, Question and Answer

10:00 a.m.-4:00 p.m.  
BREAK

4:00-5:30 p.m.  
Kokopelli II & III

Update on Advocacy Efforts and Post 2016 Election  
Moderators: Alan S. Hilibrand, MD and Jeffrey C. Wang, MD

Participants will become aware of who our healthcare leaders are in the Legislative Branch of our government and will understand the current reasons behind the repeal of the ACA, as well as be told what modifications are being suggested. Faculty will discuss Representative Price's “Empowering Patients First Act” and Speaker Ryan's "Patients Choice Act." Current concerns of our healthcare insurers also will be reviewed.
Upon completion of this session, participants will gain strategies to:

- Review the results of the 2016 election and its implications on the balance of power and legislative agenda in Washington this year;
- Appreciate the different proposals in play for comprehensive healthcare legislation, and the mechanics of repealing and replacing the Affordable Care Act;
- Identify ways that spine practitioners are affected by the decisions of policymakers in Washington, and how to play a role in the process.

4:00-4:20
Update on the 2016 Election: Winners, Losers, Priorities of the 115th Congress

Alan S. Hilibrand, MD

4:20-4:40
“Repeal and Replace”: What to Expect

John G. Finkenberg, MD

4:40-5:00
Advocacy in Action...What NASS Does, and What You Can Do, Too

Samy Abdou, MD

5:00-5:30
Panel Discussion on NASS Advocacy and Healthcare Policy

Moderator: Jeffrey C. Wang, MD
Panel: Alan S. Hilibrand, MD; John G. Finkenberg, MD; Jordan Abushawish

5:30-6:00 p.m.
Kokopelli II & III
Fireside Chats/Networking Break/ Après ski refreshments

6:00-7:30 p.m.
Kokopelli II & III

Surgical Session: Adult Deformity Symposium

Moderator: John G. DeVine, MD

Faculty will address pelvic parameters and importance of sagittal balance, preoperative planning and surgical software, poor global spinal alignment and patient outcomes, in addition to surgical techniques used in deformity correction.

Upon completion of this session, participants will gain strategies to:

- Comprehend pelvic parameters and importance of sagittal balance;
- Appreciate the preoperative planning and use of surgical software;
- Recognize the impact of poor global spinal alignment and the impact on patient outcomes;
- Identify the surgical techniques used in deformity correction to include interbody fusion, facet osteotomy, and pedicle subtraction osteotomy.
Agenda

6:00-6:20 Spinal Pelvic Alignment: Understanding of Parameters and Patient Outcomes
  John C. France, MD

6:20-6:40 What is the Role of Computer Assisted Software (i.e. Surgimap)?
  Michael D. Daubs, MD

6:40-7:00 Normal L5-S1 Disc: Can I stop at L5? Or Do I Need to Go to the Pelvis?
  Steven M. Theiss, MD

7:00-7:30 Case Presentations for Panel – Strategies for Deformity Correction.
  John G. DeVine, MD
  (Panel: Brandon D. Lawrence, MD; Steven M. Theiss, MD; John C. France, MD)

6:00-7:30 p.m.
White Pine Ballroom

Medical Session: Thoracic Pain
Moderator: Joshua D. Rittenberg, MD

This session will focus on the often overlooked thoracic spine. We will cover diagnostic challenges to identify potential thoracic pain generators, including history and physical exam to narrow the differential, and imaging correlation. We will then explore specific treatment approaches, including physical therapy and injections.

Upon completion of this session, participants will gain strategies to:

- Describe potential causes and pain generating structures in the thoracic spine;
- Identify clues in the history and physical exam to help narrow the differential diagnosis;
- Recognize the role of imaging to correlate with symptomatic disease and assess for masqueraders;
- Evaluate the role for injections, including efficacy and risk.

Agenda

6:00-6:20 Differential Diagnosis, Prevalence, Aging Population, History and Physical Exam Findings
  Jerome Schofferman, MD

6:20-6:40 Imaging: Differential Diagnosis, Masqueraders, Correlation of Findings with Symptomatic Disease
  John J. McIntyre, MD

6:40-7:00 Physical Therapy: Evidence-based vs. Experience-based Approach
  Ryan A. Tauzell, MA, PT, Cert. MDT

7:00-7:20 Injections: Do They Work? Risk vs. Benefit
  Joshua D. Rittenberg, MD

7:20-7:30 Discussion, Question and Answer
Saturday, February 25
7:30-9:00 a.m.
Kokopelli II & III

**Surgical Session:** Adjacent Segment and Proximal Junction Failures
Moderator: Brandon D. Lawrence, MD

Faculty will discuss the prevalence, risk factors and prevention of Proximal Junction Failure (PJF) in addition to revision surgery after failure.

Upon completion of this session, participants will gain strategies to:
- Recognize the prevalence of PJF, who and when to revise;
- Identify the risk factors associated with the development of PJF;
- Learn potential prevention strategies;
- Develop surgical plans for revision surgery after PJF.

**Agenda**

7:30-7:50  Global Spinal Alignment: Understanding the Parameters and Risk Factors for the Development of PJF  
*Nicholas Spina, MD*

7:50-8:10  Prevention Strategies for Avoiding PJF (Hooks, cement, or always go to the UT spine?)  
*Michael D. Daubs, MD*

8:10-8:30  What to do when PJF Occurs? (Non-operative vs operative options)  
*John C. France, MD*

8:30-9:00  Case Presentations for Panel – PJF, Prevention and Operative Techniques  
*Brandon D. Lawrence, MD*  
*(Panel: John C. France, MD; Michael D. Daubs, MD; Darrel S. Brodke, MD; John G. DeVine, MD)*

7:30-9:00 a.m.
White Pine Ballroom

**Medical Session:** Exercise Specificity for Low Back Pain: Seriously, does it Matter What Kind of Exercise?  
Moderator: Ryan Tauzell, MA, PT, Cert. MDT

Exercise treatments for low back pain are notoriously heterogeneous. We have all seen the proverbial “LBP exercise sheet”. This sheet of nonspecific exercises is omnipresent in clinician’s offices around the world...and is completely ineffective due to its imprecision. There is no more important topic in spine care than precision of treatment selection. Exercise is an important treatment for low back pain and every clinician should practice specificity of exercise application.

Upon completion of this session, participants will gain strategies to:
- Identify patient characteristics that indicate positive outcome with exercise;
- Recognize subgrouping as a means of specific exercise selection;
- Classify interventions complimentary with concurrent exercise treatment;
- Utilize advanced imaging efficaciously.
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<td><em>Ryan A. Tauzell, MA, PT, Cert. MDT</em></td>
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<td>7:35-7:50</td>
<td>Response-based Assessment</td>
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<td><em>Ryan A. Tauzell, MA, PT, Cert. MDT</em></td>
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<td>7:50-8:05</td>
<td>Lumbar Stabilization</td>
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<td><em>Michael C. Geraci, Jr., MD, PT</em></td>
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<td>8:05-8:20</td>
<td>General Exercise: Isn’t It Good for Something?</td>
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<td><em>Matthew Smuck, MD</em></td>
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<td>8:20-8:35</td>
<td>Case Scenarios Where Injections Help with Specific Lumbar Problems</td>
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<td><em>Venu Akuthota, MD</em></td>
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<td>8:35-8:50</td>
<td>Advanced Imaging: Create Morbidity or Provide a Solution?</td>
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<td><em>John J. McIntyre, MD</em></td>
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<td>8:50-9:00</td>
<td>Discussion, Question and Answer</td>
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9:00-9:30 a.m.

Kokopelli II & III

**Fireside Chats/Networking Break**

9:30-11:00 a.m.

Kokopelli II & III

**Surgical Session:** Complications Symposium: My Worst Complication (Case, Evidence, Treatment)

**Moderators:** John G. DeVine, MD and Patrick C. Hsieh, MD, MS

This symposium will cover complications in adult deformity surgery, with minimally invasive spine surgery and cervical spine surgery.

Upon completion of this session, participants will gain strategies to:
- Comprehend strategies to minimize complications in adult deformity surgery;
- Identify and treat complications associated with minimally invasive spine surgery;
- Prevent and create strategies to deal with cervical spine surgery complications.

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<td>Deformity Complication Presentation, Case/Lecture</td>
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<td><em>John C. France, MD</em></td>
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<td>9:45-10:00</td>
<td>MIS Complication Presentation, Case/Lecture</td>
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<td><em>W. Ryan Spiker, MD</em></td>
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<td>10:00-10:15</td>
<td>Cervical Complication Presentation, Case/Lecture</td>
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<td><em>Joshua E. Heller, MD</em></td>
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<td>10:15-10:30</td>
<td>Lumbar Degenerative Surgery Complication, Case/Lecture</td>
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<td><em>John G. Finkenberg, MD</em></td>
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<td>10:30-10:45</td>
<td>Durotomy, Case/Lecture</td>
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<td><em>Daniel K. Resnick, MD</em></td>
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<td>10:45-11:00</td>
<td>Discussion, Question and Answer</td>
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9:30-11:00 a.m.
White Pine Ballroom

**Medical Session:** Integrative Medicine
**Moderator:** William J. Sullivan, MD

**Agenda**

- **9:30-9:45** Role of Lifestyle and Nutrition in Chronic Spine Pain
  *Carrie A. Diulus, MD*

- **9:45-10:00** Herbs and Supplements: Is there a Role?
  *Carrie A. Diulus, MD*

- **10:00-10:15** Massage, Manipulation and Traction: Good Marketing but Where is the Science?
  *Ryan A. Tauzell, MA, PT, Cert. MDT*

- **10:15-10:30** Acupuncture, Dry Needling, and Trigger Point Injections
  *William J. Sullivan, MD*

- **10:30-10:45** Popular Products/Modalities Myth vs. Fact: Topical Creams, Laser, TENS, Inversion Tables
  *Jerome Schofferman, MD*

- **11:00 a.m.** Meeting Adjourns