



7th Annual Spine Trauma Summit
***A Focus on Current Problems: Spinal Cord Injury and
Less Invasive Surgical Strategies***
Friday, December 17 & Saturday, December 18, 2021

AGENDA

FRIDAY, DECEMBER 17, 2021

- 6pm Registration and Pizza**
- 6:25pm Welcome & Course Overview**
- 6:30pm Case Reviews & Discussions**
*Moderators: Jens R. Chapman, M.D., Andrew T. Dailey, M.D., and
Rick C. Sasso, M.D. (virtual)*
All Faculty
Objectives:
- Illustrate the physiologic effects of trauma on the spine
 - Identify surgical considerations in trauma situations
 - Outline merits of various treatment options
- 8pm Adjourn**

SATURDAY, DECEMBER 18, 2021

- 7:30am Registration, Breakfast & Exhibits**
- 7:55am Welcome, Introductions & Course Overview**
Jens R. Chapman, M.D. & Rod J. Oskouian, Jr., M.D.

Session 1 Spinal Cord Injury (SCI)

- 8am General Trends in Spine Trauma**
John Hurlbert, M.D., Ph.D.
Objectives:
- Understand emerging demographics of spine trauma
 - Outline the principals of spine trauma management
 - Identify unfolding challenges of health care management in spine trauma
- 8:20am Emerging Trends in Spinal Cord Injury Care**
Michael Fehlings, M.D., Ph.D. (virtual)
Objectives:
- Demonstrate working knowledge of the critical features of the pathophysiology of acute spinal cord injury
 - Explain the role and timing of surgical intervention for acute spinal cord injury
 - Outline current and emerging translational research for spinal cord injury

8:40am **Live Broadcast Demonstration from BioSkills Lab No. 1**

Posterior C2-L1 Fixation Primary Alternative

Moderator: Rick C. Sasso, M.D. (virtual)

Jens R. Chapman, M.D.

Objectives:

- Identify limitations and characteristics of traditional freehand pedicle fixation
- Explore options of thoracic translaminar fixation
- Outline principles of safe posterior segmental instrumentation

9:10am **Suggested Surgical Techniques Algorithm for Complete Spinal Cord Decompression Following Traumatic Spinal Cord Injury: Contribution of Imaging Biomarkers**

Bizhan Aarabi M.D.

Objectives:

- Define surgical decompression for the spinal cord
- Outline how to define whether one's surgical technique has relieved pressure of discoligamentous complex on a swollen spinal cord
- Describe the preoperative algorithm for complete surgical decompression

9:30am **Central Cord Syndromes**

David Okonkwo, M.D., Ph.D. (virtual)

Objectives:

- Outline the epidemiology, clinical presentation, and underlying
- Describe modern medical and surgical management principles for central cord syndrome

9:50am **Timing of Spinal Cord Injury (SCI) Surgery**

James Harrop, M.D. (virtual)

Objectives:

- Identify epidemiology of traumatic SCI and how it is changing
- Interpret pathophysiology of traumatic SCI and pathophysiology of improved neurologic recovery with early decompression
- Recognize the potential barriers to early surgery and possible mechanism to remove these barriers

10:10am **Break & Exhibits** *(not for CME credit)*

10:25am **Live Broadcast Demonstration from BioSkills Lab No. 2**

Thoracolumbar Corpectomy

Moderator: Andrew T. Dailey, M.D.

John Hurlbert, M.D., Ph.D.

Objectives:

- Describe indications and essentials of thoracolumbar corpectomies
- Outline thoracolumbar approach options
- Assess critical elements of anterior column reconstruction

10:55am **Revisiting Classifications of Spinal Cord Injury**

Wyatt Ramey, M.D.

Objectives:

- Outline the importance of SCI classifications
- Define the past and current systems for SCI classifications
- Describe the future of SCI classification

- 11:15am Panel Discussion: Spinal Cord Injury and Spine Trauma Needs & Opportunities**
Moderator: Jens Chapman, M.D. & Rod Oskouian, M.D.
Panelists: All Faculty
Objectives:
- Identify what to do with acute spinal cord injuries
 - Highlight ideal treatment principles
 - Classify SCI new systems different approach to better understand the pathology

Session 2 Geriatric Injuries

- 11:25am Towards A New Understanding of Osteoporotic Fractures**
Klaus Schnake, M.D., Ph.D. (virtual)
Objectives:
- Recognize the pathophysiology and clinical impact of osteoporotic vertebral body fracture
 - Describe osteoporotic fracture classification and treatment algorithm
 - Describe different surgical stabilization techniques

11:45am Break, Exhibits & Pick Up Lunch (*not for CME credit*)

- 12pm Live Broadcast Demonstration from BioSkills Lab No. 3 (working lunch)**
Posterior Cranio-Cervical with Vertebral Artery & Nerve Root Dissection
Moderator: Jens R. Chapman, M.D.
Andrew T. Dailey, M.D.
Objectives:
- Highlight critical anatomy insights
 - Provide tips on vertebral artery management during surgery
 - Outline tips & tricks for combining stable fixation with sound fusion practices

- 12:30pm Novel Thoracolumbar Fixation Strategies**
Rick C. Sasso, M.D. (virtual)
Objectives:
- Identify problematic anatomy deviations that imperil safe pedicle screw instrumentation
 - Explain translaminar screw placement principles
 - Explore other posterior thoracolumbar segmental fixation strategies

- 12:50pm Odontoid Fractures Revisited: The Surgery Treatment of Choice**
Andrew T. Dailey, M.D.
Objectives:
- Describe anterior vs. posterior limitations of odontoid screw fixation
 - Outline preferred posterior fixation strategies

- 1:10pm Live Broadcast Demonstration from BioSkills Lab No. 4**
Anterior Upper C1-C2 Odontoid Screw
Moderator: Rick Sasso, M.D. (virtual)
Bizhan Aarabi, M.D.
Objectives:
- Identify tips and tricks for safe odontoid placement, compression, and screw fixation techniques

Session 3: Multiply Injured Patients

- 1:40pm** **Prioritizing Care in Multiply Injured Patients with Spine Fractures**
Jens R. Chapman, M.D.
Objectives:
- Outline prioritization of trauma care
 - Describe the concept of damage control surgery vs. open principles

2pm **Break & Exhibits** (*not for CME credit*)

- 2:10pm** **Vertebral Artery Injuries**
Andrew T. Dailey, M.D.
Objectives:
- Review current state of diagnostic approaches
 - Discuss current classifications
 - Illustrate treatment approaches relative to injury severity

- 2:30pm** **Live Broadcast Demonstration from BioSkills Lab No. 5**
Prone Lateral Corpectomy
Rod J. Oskouian Jr., M.D.
Objectives:
- Outline the pros & cons simultaneous to prone position in corpectomy surgery
 - Describe logistical details for this approach
 - Outline timing of c-spine surgery with acute spine injuries

3pm **Adjourn**

ESTEEMED FACULTY

Bizhan Aarabi, M.D.

Professor of Neurosurgery
Director of Neurotrauma
University of Maryland Department of Surgery
University of Maryland Medical Center
Baltimore, Maryland

Jens R. Chapman, M.D.

Course Co-Chair
Complex Spine Surgeon
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Andrew T. Dailey, M.D.

Course Co-Chair
Professor
Department of Neurosurgery
University of Utah
Salt Lake City, Utah

Michael Fehlings, M.D., Ph.D., FRCS, FACS

(virtual)
Professor of Neurosurgery
Vice-Chair Research, Department of Neurosurgery
Co-Director, Spine Program
McLaughlin Scholar in Molecular Medicine
University of Toronto
Toronto, Ontario, Canada

James Harrop, M.D. *(virtual)*

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John Hurlbert, M.D., Ph.D.

Co-Medical Director, Spine Program
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David Okonkwo, M.D., Ph.D. *(virtual)*

Professor, Neurological Surgery
Director, Neurotrauma Clinical Trials Center
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Rod J. Oskouian, Jr., M.D.

Course Co-Chair
Chief of Spine
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Wyatt Ramey, M.D.

Neurosurgeon
Houston Methodist Hospital
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Rick C. Sasso M.D. *(virtual)*

Course Co-Chair
Professor, Chief of Spine Surgery
Department of Orthopaedic Surgery
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Klaus John Schnake, MD, Ph.D. *(virtual)*

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Chair, AO Spine Knowledge Forum Trauma
Chair, Spine Section of the German Orthopaedics and Trauma Society (DGOU)
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