



# **9<sup>th</sup> Annual Spine Trauma Summit**

***Care Controversies in Spine Trauma:  
Debating Optimal Management Strategies  
An interactive Meeting***

**December 15-16, 2023**

## **Syllabus**

## ESTEEMED FACULTY

**Jens R. Chapman, M.D.**  
**Course Co-Chair**  
Complex Spine Surgeon  
Swedish Neuroscience Institute  
Seattle, Washington

**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. (virtual)**  
Professor of Neurosurgery  
University of Toronto  
Toronto, Canada

**John C. France, M.D.**  
Chief, Spine Service  
Professor and Vice Chairman  
J.W. Ruby Memorial Hospital  
West Virginia University Medicine  
Morgantown, West Virginia

**James S. Harrop, M.D.**  
Chief, Division of Spine & Peripheral Nerve  
Surgery  
Jefferson University Hospitals  
Philadelphia, Pennsylvania

**Noojan Kazemi, M.D.**  
Associate Professor  
University of Arkansas for Medical  
Science  
Little Rock, Arkansas

**Klaus J. Schnake, M.D., Ph.D. (virtual)**  
Chief, Interdisciplinary Center for  
Spinal & Scoliosis Surgery  
Erlangen, Bavaria, Germany

**Neal H. Shonnard, M.D.**  
Orthopaedic Surgeon  
Rainier Orthopedic Institute  
Puyallup, Washington

**Kirkham B. Wood, M.D.**  
Professor of Orthopaedic Surgery  
Stanford Medicine  
Stanford, California

**Surgical Demonstrations Supported by Swedish Neuroscience Institute Fellows**  
Bryan Anderson, D.O., Donald Davis III, M.D., Neel Patel, M.D., & Gerrit Lewik, M.D.

# AGENDA

FRIDAY, DECEMBER 15, 2023

6 p.m.           **Registration and Pizza**

6:25 p.m.       **Welcome, Introductions & Course Overview**

6:30 p.m.       **Case Controversies & Discussions**

*Moderators: Jens R. Chapman, M.D., & Andrew T. Dailey, M.D.*

*Presenters: Bryan Anderson, D.O., Donald Davis III, M.D., Clifford Pierre, M.D., Neel Patel, M.D. & Gerrit Lewik, M.D.*

**Objectives:**

- Illustrate the physiologic effects of trauma on the spine
- Identify surgical considerations in trauma situations
- Outline merits of various treatment options

8 p.m.           **Adjourn**

SATURDAY, DECEMBER 16, 2023

7 a.m.           **Registration, Breakfast & Exhibits**

7:25 a.m.       **Welcome, Introductions & Course Overview**

*Jens R. Chapman, M.D.*

**Session 1    Thoracolumbar Fractures: Moderated by Jens R. Chapman, M.D.**

7:30 a.m.       **The AO Classification Works**

*John C. France, M.D.*

**Objectives:**

- Assess the evolution of the AO spine trauma classification system, its current validation and why this is the preferred system to use and teach
- Assess the reliability of this system and its clinical impact compared to other traditional systems

7:45 a.m.       **Treatment Decisions in Thoracolumbar Trauma: Operative or Non-Operative**

*Kirkham B. Wood, M.D.*

**Objectives:**

- Outline the main aspects of clinical decision-making on thoracolumbar fractures
- Describe clinically-relevant stability criteria
- Assess the key clinical variables that affect management decisions

8 a.m.           **Debate Panel**

*Andrew T. Dailey, M.D., & John C. France, M.D.*

**Objectives:**

- Synthesize previous positions on thoracolumbar fractures and arrive at a clinical consensus

- 8:15 a.m. ***Live Broadcast Demonstration from BioSkills Lab No. 1***  
**Posterior Cervical Thoracic Junction: Decompression & Instrumentation Techniques**  
*Kirkham B. Wood, M.D.*  
**Objectives:**
- Describe atomic peculiarities of the CT region
  - Describe instrumentation challenges
  - Share tips and tricks on how to perform safe instrumentation from posterior and posterior lateral

**Session 2** ***Central Cord Syndrome: Moderated by Andrew T. Dailey, M.D.***

- 8:45 a.m. **CCS: Historical Perspective & Present-Day Implications**  
*Noojan Kazemi, M.D.*  
**Objectives:**
- Assess the evolution of the concept of CCS over time
  - Compare current concepts of CCS problems with past clinical insights
  - Outline the limitation of past clinical care models relative to current insights
- 9 a.m. **The Case for Early Intervention is Clear**  
*John C. France, M.D.*  
**Objectives:**
- Assess safety and outcomes of early intervention on CCS
  - Identify the timeframe of what manifests in early care
  - Compare and contrast outcomes and differences of early vs. late care and limitations of the literature
- 9:15 a.m. **Acute Central Cord Injury: Timing of Surgery – Treat the Patient Not the Clock**  
*James Harrop, M.D.*  
**Objectives:**
- Address issues of patient variables that may affect the safety of surgery and clinical outcomes
  - Identify aspects that may have been overlooked and scientifically analyze the problem
  - Describe preferred techniques to manage CCS surgically

- 9:30 a.m. ***Live Broadcast Demonstration from BioSkills Lab No. 2***  
**Craniocervical Instrumentation & Grafting: When, Where, How?**  
*James Harrop, M.D.*  
**Objectives:**
- Describe the intricacies of this highly challenging anatomic region
  - Describe how to use instruments safely and how to achieve a solid fusion
  - Outline best practices to avoid misalignment and optimize patient functional outcomes

- 10 a.m. **Break & Exhibits** (*not for CME credit*)

**Session 3      Geriatric Odontoid Fractures: Moderated by Kirkham B. Wood, M.D.**

10:15 a.m.

**Please Fix**

*Andrew T. Dailey, M.D.*

**Objectives:**

- Identify clear indications for geriatric odontoid fracture
- Identify preferred surgical fixation techniques
- Outline outcomes of surgically vs. non-surgically treated fractures

10:30 a.m.

**Not Necessarily Necessary**

*John C. France, M.D.*

**Objectives:**

- Describe outcomes of geriatric odontoid fractures treated non-surgically
- Identify the actual impact of odontoid fractures and non-union on elderly patients
- Identify target groups where surgery may not be necessary for a good outcome

10:45 a.m.

**Debate Panel**

*James Harrop, M.D. & Noojan Kazemi, M.D.*

**Objectives:**

- Synthesize previous positions on geriatric odontoid fractures and arrive at a clinical consensus

11 a.m.

**Live Broadcast Demonstration from BioSkills Lab No. 3**

**Prone Lateral Corpectomy**

*Noojan Kazemi, M.D.*

**Objectives:**

- Identify indications and technical pointers to safely perform prone lateral corpectomy
- Outline instrumentation needed to safely perform this procedure
- Present tips and tricks for execution of a prone lateral corpectomy

**Session 4      Subaxial Facet Fractures: Moderated by Noojan Kazemi, M.D.**

11:30 a.m.

**Mostly Stable/Don't Worry**

*Kirkham B. Wood, M.D.*

**Objectives:**

- Describe the impact of imaging on over-diagnosis with these types of injuries
- Assess the mechanical and pain impact of various types of facet fractures on outcomes
- Outline decision points as to stability and nonsurgical vs. surgical management

11:45 a.m.

**Cervical Subaxial Facet Fractures: Worry!**

*James Harrop, M.D.*

**Objectives:**

- Classify facet fractures
- Describe the AO classification system
- Outline the role of CT and MRI in the work-up and evaluation of these fractures

- 12 p.m. Debate Panel**  
*Andrew T. Dailey, M.D., & Noojan Kazemi, M.D.*  
**Objective:**
- Synthesize previous positions on surgical and nonsurgical management of subaxial facet fractures

**12:15 p.m. Break, Exhibits & Pick Up Lunch** (*not for CME credit*)

- 12:30 p.m. Live Broadcast Demonstration from BioSkills Lab No. 4**  
**Costotransversectomy For Trauma**  
*John E. France, M.D.*  
**Objectives:**
- Identify indications for costotransversectomy for trauma
  - Review technical pointers and tricks for adequate neural element decompression and stabilization
  - Outline the use of implants, such as expandable vs. fixed cages for anterior column reconstruction

**Session 5 Osteoporotic Burst Fractures: Moderated by Jens R. Chapman, M.D.**

- 1 p.m. Early Kyphoplasty, Please**  
*Neal Shonnard, M.D.*  
**Objectives:**
- Discuss outcomes of large-scale databases on early vs. late vs. non-surgically treated vertebroplasties and kyphoplasties in the management of osteoporotic fractures
  - Summarize differences of more recent research insight with previous PRTs
  - Outline complications of kyphoplasty patients
- 1:15 p.m. Effective Non-Operative Care Works Just Fine**  
*John C. France, M.D.*  
**Objectives:**
- Outline the results of previous PRCTs showing no benefits of kyphoplasty/vertebroplasty
  - Assess that outcomes are less affected by kyphoplasty/vertebroplasty and more about patient variables
  - Identify complications of kyphoplasty/vertebroplasty compared to non-surgical care
- 1:30 p.m. Fix the Fractures** (*virtual*)  
*Klaus J. Schnake, M.D., Ph.D.*  
**Objectives:**
- Summarize indications for a surgical fixation of osteoporotic fractures
  - Assess safe instrumentation strategies in patients with poor bone stock
  - Address management of complications

**1:45 p.m. Percutaneous Fixation for Osteoporotic Sacral Fractures**

*John C. France, M.D.*

**Objectives:**

- Assess the role of percutaneous SI screws and sacroplasty in the management of osteoporotic sacral fractures
- Assess avoidance and prevention strategies
- Describe surgical outcomes of sacroiliac, fixation and augmentation

**2 p.m. Break & Exhibits** (*not for CME credit*)

**Session 6 Steroids & Spinal Cord Injuries: Moderated by John C. France, M.D.**

**2:15 p.m. Steroids Work** (*pre-recorded*)

*Michael Fehlings, M.D., Ph.D.*

**Objectives:**

- Address the highlights of work supporting the use of steroids in spinal cord injuries
- Identify the known side effects of steroids
- Provide consensus in favor of safe, differentiated steroid use

**2:30 p.m. Steroids Don't Work**

*James Harrop, M.D.*

**Objectives:**

- Outline the literature concerning steroids in SCI
- Appreciate the difficulty with design and performing prospective clinical studies
- Appreciate the risk/benefits to using steroid medication in SCI

**2:45 p.m.**

**Debate Panel**

*Michael Fehlings, M.D., Ph.D. & James Harrop, M.D.*

**Objective:**

- Critically review previous positions on steroids and SCIs and arrive at a clinical consensus

**3 p.m.**

**Live Broadcast Demonstration from BioSkills Lab No. 5**  
**Stacked Lumbopelvic Fixation: When, Where & Who?**

*Andrew T. Dailey, M.D.*

**Objectives:**

- Assess advanced lumbopelvic fixation concepts and share tips and tricks of how to optimize fixation in patients
- Discuss anatomic nuances of this technique

**Session 7 High Tech MIS or Open in TL Spine Trauma: Moderated by James Harrop, M.D.**

**3:30 p.m. High Tech MIS is Great**

*John C. France, M.D.*

**Objectives:**

- Present the latest concepts of minimally invasive surgery for trauma care
- Compare results of high-tech MIS care for patients relative to traditional open surgeries
- Assess financial impact of high-tech instrumentation systems on hospital systems and their relative outcomes and utilization

- 3:45 p.m. Traditional Open Care Works Just Fine**  
*Jens R. Chapman, M.D.*  
**Objectives:**
- Review concepts of damage control surgery
  - Assess staging for critically ill patients
  - Compare key outcomes, parameters, relative to surgeries, and their morbidity
- 4 p.m. Debate Panel**  
*Andrew T. Dailey, M.D. & James Harrop, M.D.*  
**Objective:**
- Synthesize previous positions on high-tech MIS or open in TL spine trauma and arrive at a clinical consensus
- 4:15 p.m. Rapid Fire Highlight Panel: (5 minutes each)**  
*Moderated by Jens R. Chapman, M.D.*
1. TL Fracture Care: Fix or Not?
  2. MIS Navigation/Robotics: Is it an Advancement?
  3. Spine Trauma PTP: Is it Realistic?
  4. Odontoid Fractures: Consensus?
  5. Osteoporotic Spine Fracture: Optimal Care Pathway
- Objective:**
- Debate and discuss to gain consensus for ongoing knowledge gaps for the above topics
- 4:45 p.m. Adjourn**
- 

## Acknowledgements

The Planning Committee gratefully acknowledges support for this conference from the following:

### Educational Grant

Globus Medical  
Stryker

### Exhibit Support

Cerapedics  
Globus Medical  
Kyocera Medical Technologies  
Medtronic  
Stryker

### In-Kind Support

Globus Medical  
Stryker

---

## Course Planning Committee

**Jens R. Chapman, M.D.**  
Swedish Neuroscience Institute

**Andrew Dailey, M.D.**  
University of Utah

**Rod J. Oskouian, Jr., M.D.**  
Swedish Neuroscience Institute

**Gerrit Lewik, M.D.**  
Swedish Neuroscience Institute

**Linda Sahlin**  
Seattle Science Foundation

---



## Course Evaluation

Please take a moment to complete our online evaluation, which will be emailed to you. Your feedback helps to ensure the effectiveness of this CME activity, as well as improve future educational activities. All responses are considered anonymous. <https://www.surveymonkey.com/r/SpineTrauma23>. If you do not receive the survey via email, please call (206) 732-6500 or email [cme@seattlesciencefoundation.org](mailto:cme@seattlesciencefoundation.org).

## Accreditation

Seattle Science Foundation is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## AMA PRA Category 1 Credits™

Seattle Science Foundation designates this live activity for a maximum of *10.5 AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

---

## Identifying and Resolving Conflicts of Interest

**Purpose:** The information you provide addresses several requirements of the Accreditation Council for Continuing Medical Education (ACCME) to help **ensure independence** in CME activities. Everyone in a position to control the content of a CME activity must disclose all relevant financial relationships with an ineligible company to the CME provider. This information must be disclosed to participants prior to the beginning of the activity. Also, CME providers must mitigate current conflicts of interest prior to the educational activity.

**Definitions: “Financial relationships”** are those relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, consulting fee, honoraria, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit.

The ACCME defines a “**ineligible company**” as any entity producing, marketing, re-selling or distributing health care goods or services consumed by, or used on, patients. Among the exemptions to this definition are government organizations, non-health care related companies and non-profit organizations that do not advocate for ineligible companies.

Circumstances create a “**conflict of interest**” when an individual has an opportunity to affect CME content about products or services of an ineligible company with which he/she has a financial relationship.

ACCME focuses on financial relationships with ineligible companies in the 24-month period preceding the time that the individual is being asked to assume a role controlling content of the CME activity. ACCME has not set a minimal dollar amount for relationships to be significant. Inherent in any amount is the incentive to maintain or increase the value of the relationship. The ACCME defines “**relevant financial relationships**” as financial relationships in any amount occurring within the past 24 months that create a conflict of interest.

**CME Activity Planning Committee Members:** If a conflict of interest exists, the Planning Committee member must withdraw from the Planning Committee unless the conflict can be mitigated. Mitigation may be made by one of the following methods: (1) Peer review of CME content will be conducted at another oversight level to assure no ineligible company bias exists; (2) Change in focus of course so the activity does not include information related to products or services about which the planning committee member has a conflict; (3) Severing relationship(s) between the member and any related ineligible company; (4) Others to be determined by SSF CME Committee.

**CME Activity Presenter:** When a conflict of interest exists, the Planning Committee must address the conflict by one of the following methods: (1) Review content to be presented by speaker in advance to assure content balance; (2) Change topic so the presentation is not related to products or services where a conflict exists; (3) Select a different presenter without any related ineligible company; (4) Include presentations by other faculty to provide an overall balance to the content of the course; (5) Limit or specify the sources for recommendations that the presenter can use. Each speaker is required to give a balanced, evidence-based presentation based on published research. No conclusions or recommendations without external validation may be made by a speaker with a conflict of interest.

## Faculty Disclosure Summary

The following planners and presenters, in the past 24 months, have/had a financial relationship with a commercial interest:

*(S = Speaker; P = Planner)*

**Jens R. Chapman, M.D.** (S, P): Consultant: Globus Medical

**Andrew Dailey, M.D.** (S, P): Consultant: Zimmer Biomet; Speaker: AO Spine; Research: Zimmer Biomet

**Rod J. Oskouian, Jr., M.D.** (S): Consultant: DePuySynthes, Globus Medical, Stryker, Atec Spine, Blue Ocean Spine; Royalties: Stryker, Globus Medical; Grants: AO North America

**James Harrop, M.D.** (S): Consulting Fee: DePuySynthes, NuVasive; Advisor: Spiderwort

**Noojan Kazemi, M.D.** (S): Consultant: Globus Medical

**Klaus John Schnake, M.D., Ph.D.** (S): Consultant, Speaker, Grant or Research Support: Medtronic

**Kirkham B. Wood, M.D.** (S): Consultant: Lifespine, Teslake, Kyocera & Stryker; Royalties: Globus Medical, Stryker

---

The following planners and/or presenters, in the past 24 months, have/had no financial relationship with a commercial interest:

**John C. France, M.D.** (S); **Michael Fehlings, M.D., Ph.D.** (S); **Neal Shonnard, M.D.** (S);

**Gerrit Lewik, M.D.** (P); **Linda Sahlin** (P)

---

All planners and presenters attested that their content suggestions and/or presentation(s) will provide a balanced view of therapeutic options and will be entirely free of promotional bias. All presentations have been reviewed by a planner with no conflicts of interest to ensure that the content is evidence-based and unbiased.