

Preliminary Program

Principles and Treatment of Spinal Disorders for Residents

August 15 – 16, 2014

The Renaissance Hotel Las Vegas
Las Vegas, Nevada

Special Offer—Save \$100

Tuition \$350.00

Offer expires

July 15, 2014

A photograph showing a woman in a denim jacket and a man in a striped shirt and glasses working together on a model of a human spine. The man is using a surgical instrument to work on the model. The woman is looking down at the model. The background is a plain wall.

Advancing
spine care
worldwide



Our purpose and responsibility is to shape our members’ skills and understanding of spine principles; to establish new values and incentives for the creation of knowledge, the sharing of wisdom and the development of new tools and techniques that improve patient care, patient outcomes and the cost effectiveness of spine surgery.

Excellence in Spine

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Message from AOSpine North America Chairman

Welcome to AOSpine North America!

As Chairman of AOSpine North America it is my distinct pleasure to introduce you to this unique and exciting organization. I invite you to play an active role in advancing interdisciplinary spine care, education and research through the many opportunities afforded by AOSpine North America. We pride ourselves in being part of the largest global, academically oriented interdisciplinary fellowship of spine surgeons.

Dramatic challenges to health care and expectations around patient care delivery are mandating a shift in the way spine surgeons practice. Evidenced-based, multidisciplinary care is replacing previous models of practice and this is an area where the AO can add significant educational value.

The AO ('Arbeitsgemeinschaft Osteosynthesefragen') is a noncommercial entity dedicated to education, research and advancement of surgical care provided in a fellowship of like-minded surgeons spanning the globe. Based on the concepts and philosophies of the AO, AOSpine International (AOSI) has enjoyed an amazing growth in membership and activities. AOSI is regionally represented by North America, Latin America, Asia-Pacific, Europe, and the Middle East. AOSI (currently chaired by Dr. Jeff Wang of Los Angeles) coordinates and oversees the global educational and research offerings. These include the Global Spine Congress, the World Forum for Spine Research, publishing 2 Spine periodicals (Evidence Based Spine-care Journal (EBSJ), The Global Spine Journal and a number of textbooks on spine care, as well as organizing a sizeable number of educational and research offerings.

Activities of AOSpine North America include educational events delivered by recognized leaders in their fields. In addition to education there is a multicenter research network constituted by premier North American institutions with award-winning projects (AOSNA Clinical Research Network) North America's largest peer-reviewed fellowship support program, and many peer-reviewed grant-funding opportunities. As an organization we also enjoy an ongoing strong partnership with AO North America for educational support and direction, featuring a well-established Continuing Medical Education organization with common commitment to the AO principles and the "AO family" in North America. In contrast to many other formal societies we are intentionally inclusive of specialties and origins and value our straightforward ability to provide academic advancement with the least amount of bureaucracy.

These are exciting times. We hope you will enjoy your exposure to AOSpine North America and join us in our further development as an active participant!

With warm regards,



Michael G. Fehlings, MD, PhD, FRCSC, FACS
Chairman, AOSpine North America

CME Mission Statement

The Continuing Medical Education (CME) mission of AO North America (AONA®) is to provide comprehensive multidisciplinary needs based education to surgeons, fellows, and residents in the specialties of orthopaedic, hand, craniomaxillofacial, spine, and veterinary surgery in the areas of trauma (i.e., operative reduction and fixation), degenerative disorders, deformities, tumors, and reconstruction.

Expected results of AONA's CME activities for surgeons, fellows, and residents are to:

- Increase their knowledge base and surgical skill level
- Apply and document competencies in areas of relevant advances in knowledge in the areas of trauma, degenerative disorders, deformities, tumors, and reconstructive surgical techniques into patient care resulting in improved competence
- Address practice performance gaps by improving management of all aspects of musculoskeletal injuries and disorders (i.e., pre-operative planning to post-operative care)





Course Overview

AOSpine North America Principles courses are intended to address the additional training needs and practice gaps of the orthopedic and neurological spine residents. This course is designed to offer residents the opportunity to learn the AO principles of anatomic reduction of fracture fragments; stable fixation to ensure proper healing while allowing the surrounding tissue to strengthen; atraumatic surgical technique to preserve the blood supply to the bone fragments and soft tissue; and early, pain-free mobilization so the patient can be returned to function as soon as possible as they apply to spinal surgery. The course will also provide basic exposure to spinal disorders from expert teaching faculty from both orthopedic and neurological spine surgery.

The modular course format will focus on the spine patient in a conceptual, case study and practical exercise format. Participants in small groups will rotate through each module over the 2 day period. **All participants are encouraged to bring HIPAA-compliant cases for discussion to maximize their experience at the course.**

Target Audience

Enrollment in the Course is limited to orthopedic and neurological surgery residents PGY 1 – PGY 7.

Learner Objectives

At the conclusion of this Course, the participant should be able to:

- Perform a complete neurological assessment and identify potentially unstable spinal injuries
- Order appropriate imaging
- Classify the injury according to fracture morphology, instability, and neurological status
- Describe the best operative and nonoperative treatment option for each patient based on the available evidence
- Reduce/decompress/stabilize appropriately
- Demonstrate the basic knowledge of the principles of bone and soft tissue healing
- Identify the anatomic and biomechanical issues in spinal fixation
- Collaborate in the rehabilitation plan for the patient
- Identify and manage postinjury and postoperative complications
- Apply psychomotor skills developed during practical exercises into surgical practice.

Accreditation



AO North America is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Designation Statement

AO North America designates this *live* educational activity for a maximum of 12.5 *AMA PRA Category 1 Credits™*. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Faculty

The faculty of this Course is composed of international surgeons distinguished in the field of operative fracture care.

Course Chairmen

Dean Chou, MD

Associate Professor
Department of Neurosurgery
The UCSF Spine Center
University of California San Francisco
San Francisco, California

Michael Lee, MD

Associate Professor Orthopaedic
Spine Surgery
Department of Orthopaedics &
Sports Medicine
University of Washington
Medical Center
Seattle, Washington

Education Advisor

James Schuster, MD, PhD

Associate Professor
Department of Neurosurgery
University of Pennsylvania
Philadelphia, Pennsylvania

Invited Faculty

Michelle Clarke, MD

Associate Professor
Department of Neurologic Surgery
Mayo Clinic College of Medicine
Rochester, Minnesota

Daryl Fourney, MD, FRCSC, FACS

Professor
Director, Resident Training Program
Division of Neurosurgery
Saskatoon, Saskatchewan

John C France, MD

Professor, Orthopaedics & Neurosurgery
Department of Orthopaedic Surgery
West Virginia University
Chief of Spine Surgery
Morgantown, West Virginia

Roger Härtl, MD

Associate Professor of Neurosurgery
Chief of Spinal Surgery
Weill Cornell Medical College
New York, New York

Stewart M. Kerr, MD

Attending Orthopaedic & Spinal Surgeon
Confluence Health Medical Center
Wenatchee, Washington

Eric Klineberg, MS, MD

Associate Professor
Adult & Pediatric Spinal Surgery
Department of Orthopaedics
Sacramento, California

Brandon Lawrence, MD

Assistant Professor
University of Utah Orthopaedic Center
Salt Lake City, Utah

Robert Molinari, MD

Professor
Department of Orthopaedic Surgery
University of Rochester
Rochester, New York

Robert Morgan, MD

Assistant Professor of
Orthopaedic Surgery,
University of Minnesota
Minneapolis, Minnesota

Praveen Mummaneni, MD

Professor
Department of Neurosurgery
UCSF
San Francisco, California

Daniel Sciubba, MD

Assistant Professor of
Neurosurgery, Oncology
and Orthopaedic Surgery
Director, Spine Research
Johns Hopkins Hospital
Baltimore, Maryland

Phillip B. Storm, MD

Associate Professor
Perelman School of Medicine
University of Pennsylvania
Chief, Division of Pediatric Neurosurgery
Children's Hospital of Philadelphia
Philadelphia, Pennsylvania

Preliminary Program

Friday, August 15, 2014

Time	Agenda Item
08:00 – 08:30	Welcome/Course Objectives/AOSpine/Pre-Assessment
08:30 – 08:40	Travel to Modules
	SESSION I
08:40 – 10:10	MODULE A: CERVICAL TRAUMA Case 1: OC-C1 Dislocation Case 2: C2 Fracture (Odontoid) Case 3: Cervical Facet Dislocation
08:40 – 10:10	MODULE B: THORACOLUMBAR DEFORMITY Case 1: Deformity Principles Case 2: Thoracolumbar Kyphosis Case 3: Degenerative Scoliosis with Back and Leg Pain
08:40 – 10:10	MODULE C: THORACOLUMBAR TRAUMA Case 1: T12 B2 Injury without Deficit Case 2: L1 A3 Injury with Conus Medullaris Syndrome Case 3: T6 C2 Injury
08:40 – 10:10	MODULE D: CERVICAL SPINE LAB LAB - A. Cervical Lateral Mass Screws LAB - B. C2 Pedicle Screws LAB - C. C1 Lateral Mass Screws
10:10 – 10:30	Coffee Break/Travel to Modules
	SESSION II
10:30 – 12:00	MODULE A: CERVICAL TRAUMA Case 1: OC-C1 Dislocation Case 2: C2 Fracture (Odontoid) Case 3: Cervical Facet Dislocation

Preliminary Program

Friday, August 15, 2014 (continued)

Time	Agenda Item
10:30 – 12:00	MODULE B: SUBAXIAL TRAUMA Case 1: Deformity Principles Case 2: Thoracolumbar Kyphosis Case 3: Degenerative Scoliosis with Back and Leg Pain
10:30 – 12:00	MODULE C: THORACOLUMBAR TRAUMA Case 1: T12 B2 Injury without Deficit Case 2: L1 A3 Injury with Conus Medullaris Syndrome Case 3: T6 C2 Injury
10:30 – 12:00	MODULE D: CERVICAL SPINE LAB Cervical Lateral Mass Screws C2 Pedicle Screws C1 Lateral Mass Screws
12:00 – 13:00	Lunch
13:00 – 13:10	Travel to Modules
	SESSION III
13:10 – 14:40	MODULE A: CERVICAL TRAUMA Case 1: OC-C1 Dislocation Case 2: C2 Fracture (Odontoid) Case 3: Cervical Facet Dislocation
13:10 – 14:40	MODULE B: THORACOLUMBAR DEFORMITY Case 1: Deformity Principles Case 2: Thoracolumbar Kyphosis Case 3: Degenerative Scoliosis with Back and Leg Pain
13:10 – 14:40	MODULE C: THORACOLUMBAR TRAUMA Case 1: T12 B2 Injury without Deficit Case 2: L1 A3 Injury with Conus Medullaris Syndrome Case 3: T6 C2 Injury

Preliminary Program

Friday, August 15, 2014 (continued)

Time	Agenda Item
13:10 – 14:40	MODULE D: CERVICAL SPINE LAB Cervical Lateral Mass Screws C2 Pedicle Screws C1 Lateral Mass Screws
14:40 – 15:00	Coffee Break/Travel to Modules
	SESSION IV
15:00 – 16:30	MODULE A: CERVICAL TRAUMA Case 1: OC-C1 Dislocation Case 2: C2 Fracture (Odontoid) Case 3: Cervical Facet Dislocation
15:00 – 16:30	MODULE B: THORACOLUMBAR DEFORMITY Case 1: Deformity Principles Case 2: Thoracolumbar Kyphosis Case 3: Degenerative Scoliosis with Back and Leg Pain
15:00 – 16:30	MODULE C: THORACOLUMBAR TRAUMA Case 1: T12 B2 Injury without Deficit Case 2: L1 A3 Injury with Conus Medullaris Syndrome Case 3: T6 C2 Injury
15:00 – 16:30	MODULE D: CERVICAL SPINE LAB Cervical Lateral Mass Screws C2 Pedicle Screws C1 Lateral Mass Screws
16:30 – 17:30	Reception

Preliminary Program

Saturday August 16, 2014

Time	Agenda Item
	SESSION V
07:30 – 08:55	MODULE A: LUMBAR DEGENERATIVE DISEASE Case 1: L4 Disk Herniation Case 2: Lumbar Spinal Stenosis Case 3: Degenerative and Isthmic Spondylolisthesis
07:30 – 08:55	MODULE B: CERVICAL DEGENERATIVE DISEASE Case 1: C5/6 Disk Herniation with Radiculopathy (anterior and posterior options) Case 2: Cervical Stenosis with Myeloradiculopathy Case 3: Multilevel Cervical Stenosis with Myelopathy and Kyphosis
07:30 – 08:55	MODULE C: TUMOR/INFECTION Case 1: Hematogenous Osteomyelitis Case 2: Metastatic Tumor Case 3: Primary Tumor
07:30 – 08:55	MODULE D: LUMBAR SPINE LAB Lumbar Pedicle Screws Thoracic Pedicle Screws Pelvic Fixation
08:55 – 09:05	Travel to Modules
	SESSION VI
09:05 – 10:30	MODULE A: LUMBAR DEGENERATIVE DISEASE Case 1: L4 Disk Herniation Case 2: Lumbar Spinal Stenosis Case 3: Degenerative and Isthmic Spondylolisthesis
09:05 – 10:30	MODULE B: CERVICAL DEGENERATIVE DISEASE Case 1: C5/6 Disk Herniation with Radiculopathy (anterior and posterior options) Case 2: Cervical Stenosis with Myeloradiculopathy Case 3: Multilevel Cervical Stenosis with Myelopathy and Kyphosis

Preliminary Program

Saturday August 16, 2014 (continued)

Time	Agenda Item
09:05 – 10:30	MODULE C: TUMOR/INFECTION Case 1: Hematogenous Osteomyelitis Case 2: Metastatic Tumor
09:05 – 10:30	MODULE D: LUMBAR SPINE LAB Lumbar Pedicle Screws Thoracic Pedicle Screws Pelvic Fixation
10:30 – 10:50	Coffee Break/Travel to Modules
	SESSION VII (with lunch)
10:50 – 12:15	MODULE A: LUMBAR DEGENERATIVE DISEASE Case 1: L4 Disk Herniation Case 2: Lumbar Spinal Stenosis Case 3: Degenerative and Isthmic Spondylolisthesis
10:50 – 12:15	MODULE B: CERVICAL DEGENERATIVE DISEASE Case 1: C5/6 Disk Herniation with Radiculopathy (anterior and posterior options) Case 2: Cervical Stenosis with Myeloradiculopathy Case 3: Multilevel Cervical Stenosis with Myelopathy and Kyphosis
10:50 – 12:15	MODULE C: TUMOR/INFECTION Case 1: Hematogenous Osteomyelitis Case 2: Metastatic Tumor Case 3: Primary Tumor
10:50 – 12:15	MODULE D: LUMBAR SPINE LAB Lumbar Pedicle Screws Thoracic Pedicle Screws Pelvic Fixation
12:15 – 12:25	Travel to Modules

Preliminary Program

Saturday August 16, 2014 (continued)

Time	Agenda Item
	SESSION VIII
12:25 – 13:50	MODULE A: LUMBAR DEGENERATIVE DISEASE Case 1: L4 Disk Herniation Case 2: Lumbar Spinal Stenosis Case 3: Degenerative and Isthmic Spondylolisthesis
12:25 – 13:50	MODULE B: CERVICAL DEGENERATIVE DISEASE Case 1: C5/6 Disk Herniation with Radiculopathy (anterior and posterior options) Case 2: Cervical Stenosis with Myeloradiculopathy Case 3: Multilevel Cervical Stenosis with Myelopathy and Kyphosis
12:25 – 13:50	MODULE C: TUMOR/INFECTION Case 1: Hematogenous Osteomyelitis Case 2: Metastatic Tumor Case 3: Primary Tumor
12:25 – 13:50	MODULE D: LUMBAR SPINE LAB Lumbar Pedicle Screws Thoracic Pedicle Screws Pelvic Fixation
13:50 – 14:10	Post Assessment Test/Closing Remarks

Preliminary program subject to modification

Presentation Information

Faculty Disclosure

It is the policy of AO North America to abide by the Accreditation Council for Continuing Medical Education Standards for Commercial Support. Standard 2: “Disclosures Relevant to Potential Commercial Bias and Relevant Financial Relationships of Those with Control over CME Content,” requires all planners, including course directors, chairs, and faculty, involved in the development of CME content to disclose their relevant financial relationships prior to participating in the activity. Relevant financial relationships will be disclosed to the activity audience. The intent of the disclosure is not to prevent a faculty with a relevant financial or other relationship from teaching, but to provide participants with information that might be of importance to their evaluation of content. All potential conflicts of interest have been resolved prior to the commencement of this activity.

Conflict of Interest Resolution Statement

When individuals in a position to control or influence the development of the content have reported financial relationships with one or more commercial interests, AO North America utilizes a process to identify and resolve potential conflicts to ensure that the content presented is free of commercial bias.

Off-Label/Experimental Discussions

Some medical devices used for teaching purposes and/or discussed in AO North America’s educational activities may have been cleared by the FDA for specific uses only or may not yet be approved for any purpose. Faculty may discuss off-label, investigational, or experimental uses of products/devices in CME certified educational activities. Faculty have been advised that all recommendations involving clinical medicine in this CME activity are based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients. All scientific research referred to, reported or used in this CME activity in support or justification of a patient care recommendation conforms to the generally accepted standards of experimental design, data collection and analysis.

Presentation Information (continued)

Liability Statement

AO North America faculty and staff assume no personal liability for the techniques or the use of any equipment and accessories used for teaching purposes in the laboratory. The certificate provided pertains only to the participants' completion of the course and does not, in any way, attest to the proficiency of the participants' clinical experience.

AONA Disclaimer

AONA does not endorse nor promote the use of any product/device of commercial entities. Equipment used in this course is for teaching purposes only with the intent to enhance the learning experience.

AONA gratefully acknowledges the in-kind support of equipment and technical staff from DePuy Synthes



General Information

Registration Fees

Special offer – Save \$100 – Tuition \$350.00. Offer expires July 15, 2014

Residents / Fellows: \$450.00 (US funds) after July, 15, 2014

Registration includes breakfasts, refreshments, lunch, course reception, scientific sessions, course materials and AOSpine membership.

Registration Procedure

Registration is available online only at www.aona.org

We encourage early registration, as seating is limited. Upon receipt of your online registration and payment, you will be sent via email a confirmation of your registration in the course, along with hotel and travel information to assist you in making your arrangements. Participants who register after the course is full will be placed on a wait list and contacted if space becomes available.

PLEASE NOTE: Registration deadline is July 14, 2014

Refund Policy

Full refunds will be made only if written notice of cancellation is received by registration deadline date. Cancellations received after the **deadline date** will be subject to a 10% cancellation fee. No tuition refund will be issued for cancellations after the start date of the course.

ADA Statement

AO North America fully intends to comply with the legal requirements of the Americans with Disabilities Act. If any registrant is in need of accommodation, please do not hesitate to submit a written request at least one month prior to this activity.

Until an email confirmation is received, please do not consider yourself registered in this Course.

For Information:

Contact AONA Customer Service Department

Phone: (800) 769-1391

(610) 695-2459

Fax: (610) 695-2420

Email: customerservice@aona.org



Hotel and Travel

Hotel Accommodations

The program, related activities, and accommodations will be held at:

Renaissance Las Vegas

3400 Paradise Road, Las Vegas, Nevada 89169-2770

Contact: 1-800-750-0980

<http://www.renaissancelasvegas.com/>

Hotel Concessions

- Guestroom internet service at no charge
- Complimentary parking for local attendees
- Complimentary use of hotel fitness center

Room rate

\$119 – single or double adult occupancy

Rooms will be held until July 14, 2014, or until room block is filled, whichever comes first. After this date, rooms will be on an as-available basis.

Reservations Procedure—Book by July 14, 2014

To make your hotel reservation, please call the Renaissance Las Vegas at **1(800) 750-0980 or (702) 784-5700** and ask to book a room for the “AONorth America Principles and Treatment of Spinal Disorders for Residents” group.

Deadline: It is strongly recommended that participants book their hotel rooms as soon as possible, as space will fill rapidly. Reservations at the group rate may not be available after July 14, 2014

Travel

For assistance with travel to and from Las Vegas, you are invited to contact AAA Travel (800) 259-4023). The Renaissance Las Vegas Hotel is approximately 15 minutes from McCarran International Airport (LAS). Taxis and shuttles are available.

Complete information will be provided in the confirmation email.

Please visit our website: www.aona.org to register for this Course and for other course offerings.

AOSpine — the leading global academic community
for innovative education and research in spine care,
inspiring lifelong learning and improving patients' lives.

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Registration is available only online: www.aona.org
Hotel Registration Deadline: July 14, 2014