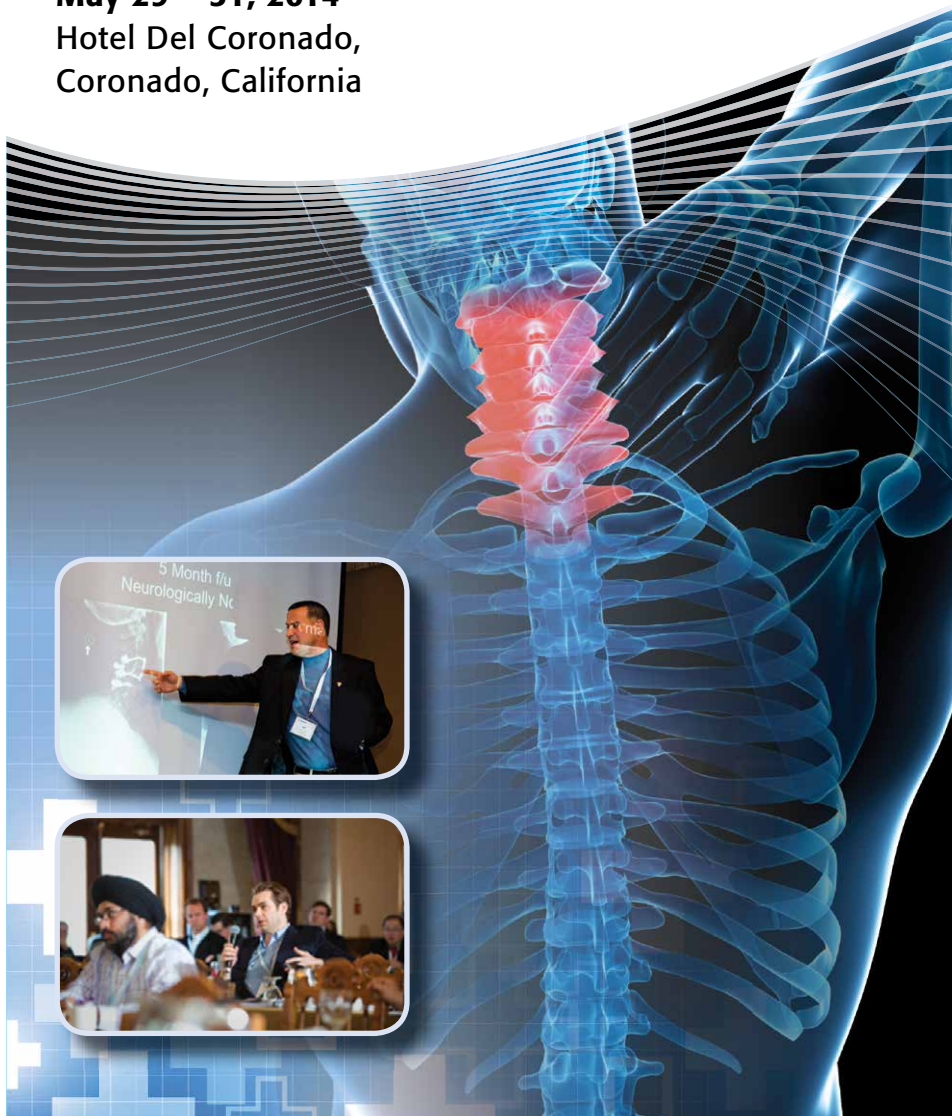


Preliminary Program

Complex Spine Surgery: Synthesizing the Evidence Through Case Discussion

May 29 – 31, 2014

Hotel Del Coronado,
Coronado, California



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,



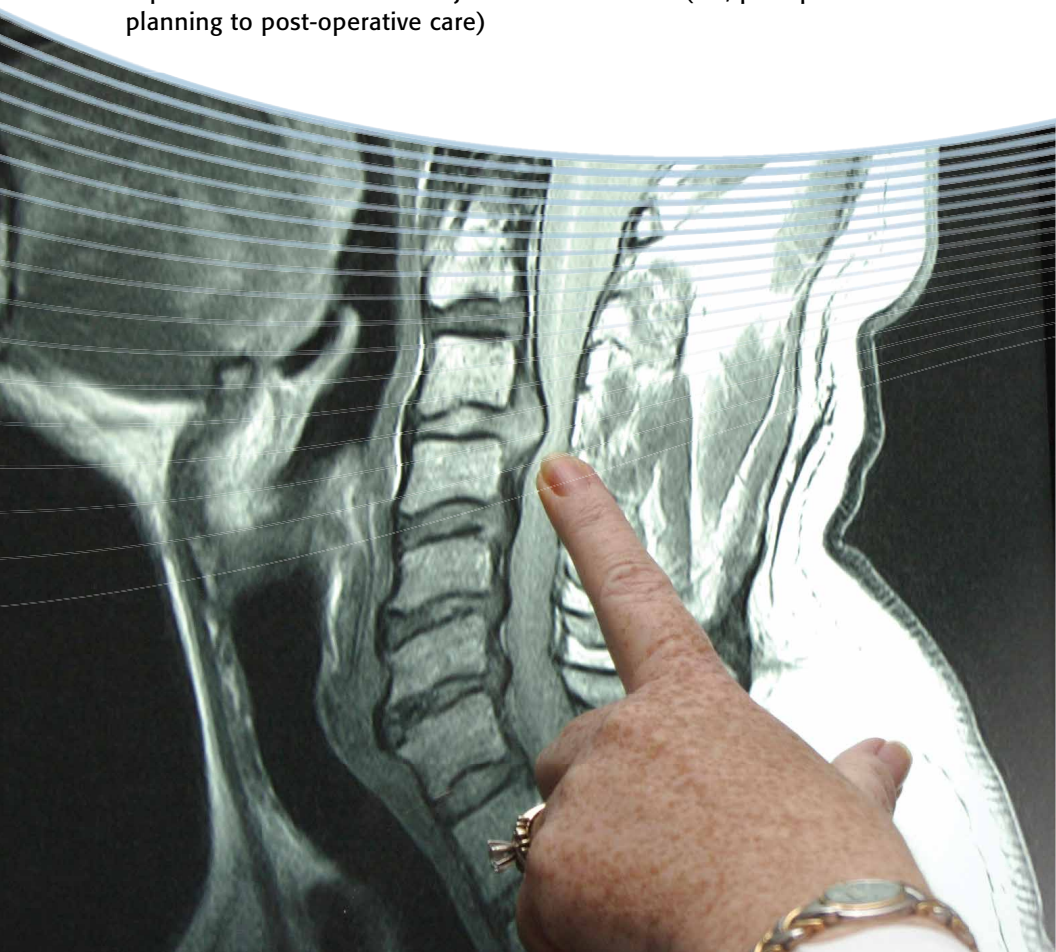
Michael G. Fehlings, MD, PhD, FRCSC, FACS
Chairman, AOSpine North America

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 orthopedic, 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

Spine surgery is constantly evolving from recent advances in molecular and cell biology and materials sciences for application in the treatment of musculoskeletal disorders to the incorporation of the latest trends in minimally invasive surgery. These rapid changes pose challenges for the experienced neurological and orthopedic spine surgeon from understanding the controversies surrounding current treatment modalities to recognizing indicators for specific surgical techniques or approaches to complex spine problems.

This highly interactive course highlights advances, complications, controversies, and outcomes in the treatment of complex spinal problems. Motion preservation, bone biology, and minimally invasive surgery will be covered in depth as well as diagnostic issues, treatment methods, patient selection, and indications for surgical techniques and approaches to these problems. Problem-based decision-making will be utilized to develop logical algorithms for solving complex spinal problems.

The course format will include brief lectures and panel discussions with expert faculty, case presentations, and small group discussions. Cases will illustrate specific problems, principles, or techniques in different areas of complex spine surgery including trauma, degenerative spine disease (including osteoporosis and the aging spine), deformities, tumors, and infections.

Target Audience

This course is designed for the experienced neurological and orthopedic spine surgeon. Residents (PGY 4 and above) may find this course of interest. However, we strongly recommend attendance for residents at an AOSpine Principles and Treatment of Spinal Disorders course prior to attending this Advanced course.

Small Group Discussions

“Small Group Discussions” will be held in the afternoon. Small groups will be formed to allow a unique opportunity for both the participant and Faculty to present cases for interactive discussion. Participants are requested to submit HIPAA-compliant cases on CD or memory device for these discussions prior to the scheduled Small Group Discussions.

Learner Objectives

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

- Discuss the latest advances and controversies in the treatment of complex spinal problems
- Analyze the patient history and physical examination findings
- Describe diagnostic problems and treatment methods for spinal conditions
- Use evidence-based decision making when recommending operative and nonoperative interventions
- Use appropriate nonoperative treatments
- Describe and demonstrate the AO principles and fixation techniques in spinal surgery for deformities, degenerative spine disease, and inflammatory processes affecting the spine
- Select and perform appropriate surgical procedures for specific indications
- Prevent/manage operative and postoperative complications
- Use outcome measures to assess the effectiveness of each intervention

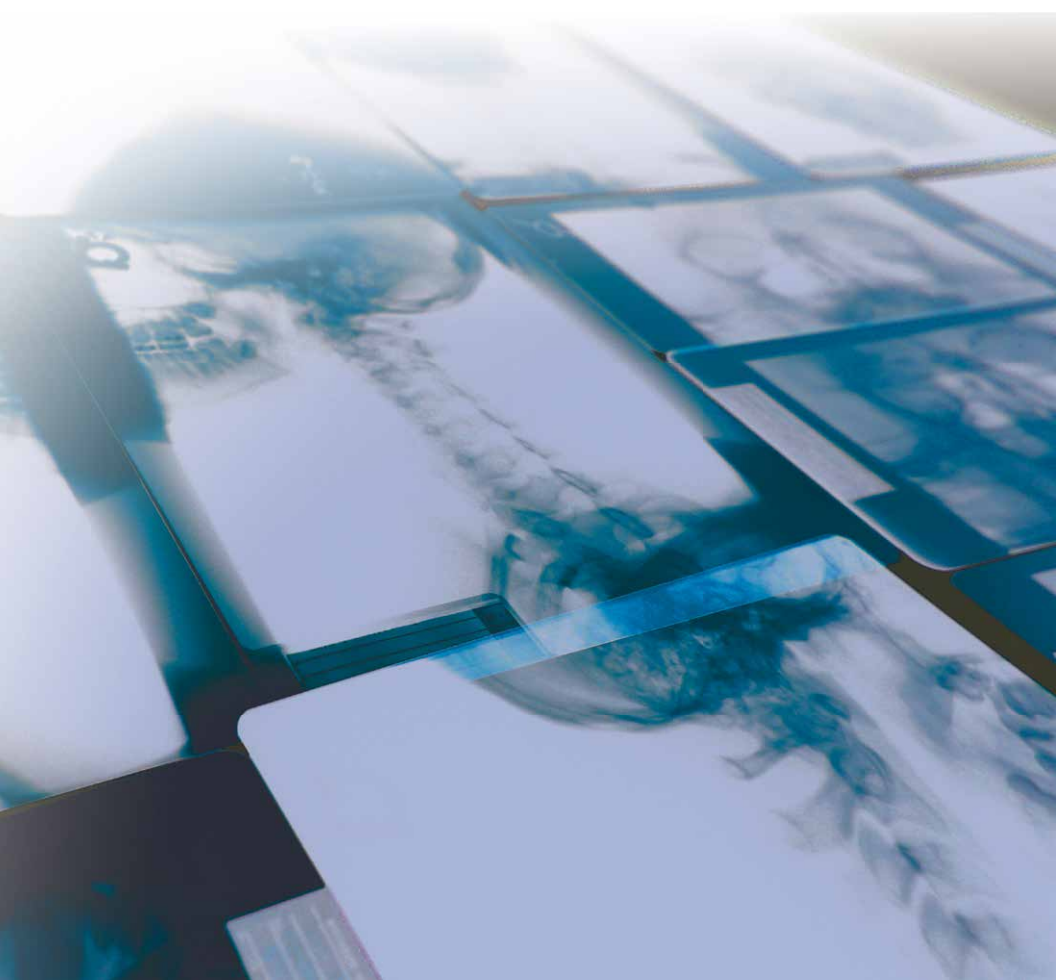
Accreditation



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

Designation Statement

AO North America designates this *live* educational activity for a maximum of 15.75 *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

Norman Chutkan, MD

Professor and Chairman
Department of Orthopaedic Surgery
Georgia Regents University
Augusta, Georgia

Jean-Paul Wolinsky, MD

Associate Professor
Department of Neurological Surgery
and Oncology
Clinical Director/Johns Hopkins
Spine Program
Baltimore, Maryland

Education Advisor

John DeVine, MD

COL, MC
Associate Professor, USUHS
Chief, Spine Surgery
Eisenhower Army Medical Center
Augusta, Georgia

Invited Faculty

Carlo Bellabarba, MD

Professor, Departments of
Orthopaedic and Neurological Surgery
Director, Spine Service
Harborview Medical Center
University of Washington
Seattle, Washington

Theodore J. Choma, MD

Professor and Vice Chairman
Orthopaedic Surgery Department
University of Missouri
Director, Missouri Spine Center
Columbia, Missouri

Dean Chou, MD

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

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

Brandon Lawrence, MD

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

Alpesh A. Patel, MD, FACS

Associate Professor
Director, Fellowship in Spine Surgery
Chief, Orthopaedic Spine Surgery
Department of Orthopaedic Surgery
Northwestern University Feinberg
School of Medicine
Chicago, Illinois

Jeffrey Wang, MD

Chief, Orthopaedic Spine Service
Co-Director, USC Spine Center
Professor of Orthopaedics and
Neurosurgery
USC Spine Center
Los Angeles, California

Timothy Witham, MD, FACS

Associate Professor of Neurosurgery
Director, The Johns Hopkins Bayview
Spine Program
Director, The Johns Hopkins
Neurosurgery Spinal Fusion Laboratory
Baltimore, Maryland

Faculty list subject to change

Preliminary Program

Thursday May 29, 2014

Time	Agenda Item
07:30 – 07:45	Welcome / Introduction to the Audience Interactive Response System (AIRS)
07:45 – 08:00	AO History
08:00 – 09:30	LUMBAR SPONDYLOSIS (CASE BASED PANEL DISCUSSION WITH AUDIENCE) LUMBAR STENOSIS / L4-5 DEGENERATIVE SPONDYLOLISTHESIS MIS / Motion Preservation / Laminectomy +/- Fusion Laminectomy +/- Fusion Bone Biology TLIF / PLIF / X-D-LIF Infection HYPOLORDOSIS/ KYPHOSIS MIS/ Motion Preservation / Laminectomy +/- Fusion Laminectomy +/- Fusion Bone Biology TLIF / PLIF / X-D-LIF Infection
09:30–09:50	Coffee Break
09:50–10:50	DEFORMITY AFTER LUMBAR FUSION / PJK / ADJACENT LEVEL DISEASE (CASE BASED PANEL DISCUSSION WITH AUDIENCE) Importance of Sagittal Balance / Pelvic Parameters TLIF / PLIF / X-D-LIF / ALIF Ponte Osteotomies / PSO / VCR Pelvic Instrumentation Vertebroplasty Adjacent Level Bone Biology Infection
10:50–11:00	Importance of Sagittal Balance / Pelvic Parameters
11:00–11:15	Pelvic Instrumentation
11:15–11:30	Osteotomies — Ponte Osteotomies / PSO / VCR
11:30–11:45	Pick up Box Lunch / Travel to Small Groups
11:45–13:30	Small Group Discussion (With Lunch)
18:00–19:00	Reception

Preliminary Program

Friday May 30, 2014

Time	Agenda Item
07:30 – 08:35	CERVICAL SPONDYLOSIS (CASE BASED PANEL DISCUSSION WITH AUDIENCE) Indications for Foraminotomy Indications for ACDF Indications for Arthroplasty
08:35 – 09:50	CERVICAL MYELOPATHY (CASE BASED PANEL DISCUSSION WITH AUDIENCE) STENOSIS WITHOUT MYELOPATHY, STENOSIS WITH MYELOPATHY, THORACIC MYELOPATHY Anterior / Posterior; Laminoplasty Anterior, Posterior, Anterior / Posterior Timing of Surgery Thoracic Approach
09:50 – 10:15	THORACIC MYELOPATHY (CASE BASED PANEL DISCUSSION WITH AUDIENCE) Thoracic Approaches (Thoracotomy vs. Costotransversectomy / Extracavitary) Thoracic Instrumentation (Plates, Screws – Technique)
10:15 – 10:35	THORACIC MYELOPATHY (continued) Transthoracic Discectomy Costotransversectomy / Extracavitary
10:35 – 10:45	Coffee Break
10:45 – 11:05	GERIATRIC UPPER CERVICAL RA WITH PANNUS / BI / SUBAXIAL INSTABILITY (CASE BASED PANEL DISCUSSION WITH AUDIENCE) C1-2 Fusion / OC Fusion Odontoidectomy Bone Biology – Specific Implication of RA Drugs
11:05 – 11:25	C1-2 Fusion / OC Fusion
11:25 – 11:45	TYPE II ODONTOID >75 YO PATIENT (CASE BASED PANEL DISCUSSION WITH AUDIENCE) Surgery vs. No Surgery (Collar / HALO) Anterior vs. Posterior Bone Biology – Osteoporosis

Preliminary Program

Friday May 30, 2014 (continued)

Time	Agenda Item
11:45 – 12:00	Working Lunch (Pick up Box Lunches)
12:00 – 12:20	TUMOR
12:00 – 12:20	Metastatic Tumors + SINS
12:20 – 13:00	PRIMARY WITH METASTATIC CASES AS WELL (CASE BASED PANEL DISCUSSION WITH AUDIENCE) Bone Biology Myeloma / Lymphoma Treatment Chordoma / Sarcoma Treatment

Preliminary Program

Saturday, May 31, 2014

Time	Agenda Item
07:30 – 09:00	CERVICAL TRAUMA (CASE BASED PANEL DISCUSSION WITH AUDIENCE) FACET DISLOCATION / LATERAL MASS FRACTURE / HANGMAN'S FRACTURE When do you need an MRI Traction Anterior/ Posterior Timing
09:00 – 09:40	TRAUMA (CASE BASED PANEL DISCUSSION WITH AUDIENCE) THORACOLUMBAR AND LUMBAR, AS Pharmacological Anterior / Posterior / Combined Implications of Location — Cord / Conus / Cauda MIS and Trauma
09:40 – 09:55	Coffee Break
09:55 – 11:30	TRAUMA CONT. (CASE BASED PANEL DISCUSSION WITH AUDIENCE)
11:30 – 11:45	Pick up Box Lunch / Travel to Small Groups
11:45 – 12:45	Small Group Discussion (Over Lunch)
12:45 – 13:00	Wrap-up

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.

General Information

Registration Fees

\$885.00 (US funds)

Tuition Includes:

Registration, materials, breakfasts, coffee breaks and lunch

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.

PLEASE NOTE: Registration deadline is May 6, 2014

Cancellation Policy

Full refunds will be made only if written notice of cancellation is received by the 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

Room reservations are the responsibility of the individual registrant. A block of rooms has been reserved at a rate of \$265.00 per night, plus tax, single / double occupancy, at Hotel Del Coronado. Rooms will be held until May 6, 2014 or until room block is filled, whichever comes first. After this date, rooms will be on an as-available basis.

Hotel Del Coronado

1500 Orange Avenue
Coronado, California 92118
Phone: (800) 468–3533
or (619) 435–6611

Hotel Concessions

While at the Hotel Del Coronado you will enjoy:
— 25% discount on parking for local attendees

Travel

Air service is available to San Diego International Airport / Lindbergh Field (SAN) and is the most economical way to arrive at the hotel. Hotel Del Coronado is 6 miles from the San Diego International Airport

The airport and around town shuttle is handled by the Del Express at (888) 364-2315. 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.

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inspiring lifelong learning and improving patients' lives.



Preliminary Program

Complex Spine Surgery: Synthesizing the Evidence Through Case Discussion

AO North America
1700 Russell Road
Paoli, PA 19301

Registration is available only online: www.aona.org
Hotel Registration Deadline: May 6, 2014