



## Minimally Invasive Spine Surgery and Navigation



November 20, 2015 - November 21, 2015

Phoenix, Arizona, USA

## COURSE OVERVIEW

Traditional spinal surgery carries a risk for injury to back muscles and is associated with significant blood loss, long hospital stays and recovery times. Minimally invasive spinal surgery techniques and navigation for spinal surgery are rapidly evolving. Recent reports on less invasive spinal surgery indicate that minimally invasive spinal surgery reduces many downsides of traditional spinal surgery. Minimally invasive surgery and navigation include technically demanding techniques that require extensive updating of a surgeon's skills through hands-on training and education.

Led by experienced faculty, the course provides a forum for exposure to the latest cutting edge techniques used in Minimally Invasive Spinal Surgery. Significant time is dedicated to operative indication discussions. The problem-based decision making process is emphasized during these very interactive discussions.

## BIOSKILLS LAB

Through intensive, hands-on sessions utilizing human anatomic specimens, participants will engage in surgical techniques and strategies for a range of procedures, including cervical, thoracic, and lumbar surgical techniques.

## SMALL GROUP DISCUSSIONS

"Small Group Discussions" will be held in the late 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.

## ONLINE ACTIVITIES BEFORE THE COURSE

During the month leading up to the course, participants will engage in the following online activities designed to prepare for and optimize the time available in the face-to-face event:

- Precourse assessment
- Transforaminal Lumbar Interbody Fusion (TLIF)
  - TLIF procedural videos
  - Illustrated step-by-step guide for TLIF procedure
  - Precourse reading of key chapters and sections from the most recent AOSpine MIS book
- Case forum discussion
  - Cases presented by faculty members

## TARGET AUDIENCE

Enrollment in this course is open to attending orthopaedic and neurological spine surgeons.

## Event Summary

**Tuition:**

Level Name: Participant - Spine

Pricing Tier: Attending

Tuition: \$1,500.00

Level Name: Participant - Orthopaedic

Pricing Tier: Attending

Tuition: \$0.00

**Course Prerequisite(s):**

No Prerequisites

**Venue:**

Pointe Hilton Squaw Peak

7677 16th Street

Phoenix, AZ, USA

Phone Number: 602-997-2626

www.squawpeakhilton.com

**Language(s):**

English

**Directly Provided by:****Professional Level Prerequisite(s):**

- Fellow
- Practicing

## CME

### Continuing Education Credit: 19.75



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

Below Wording CMF Only- Continuing Education Dental Credit Statement..

As an Accreditation Council for Continuing Medical Education (ACCME) accredited provider, AO North America meets the definition of a constituent or component organization of the AMA and thereby meets most state dental board requirements of an approved sponsor of continuing education. This course is focused on clinical issues in oral-maxillofacial surgery that are relevant to the treatment and care of dental patients. Most states accept AMA constituents as approved sponsors for continuing dental education credit. If you have questions, your state dental board can confirm eligibility of this course.

- **Designation Statement** - AO North America designates this live educational activity for a maximum of 19.75 **AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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, neurosurgery, 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
- Improve competence by applying advances of knowledge in patient care in the areas of trauma, degenerative disorders, deformities, tumors, and reconstructive surgical techniques
- Address practice performance gaps by improving management of aspects of traumatic injuries and musculoskeletal disorders (i.e., pre-operative planning to post-operative care)

## Learning Objectives

Upon completion, participants should be able to:

- Identify the anatomy and radiology of spinal and paraspinal structures
- Determine which types of pathology are amenable to minimally invasive spinal surgery
- Describe the state-of-the-art minimally invasive surgery used in these approaches
- Identify the principles of stereotactic spinal navigation and its use for minimally invasive spinal procedures
- Recognize the pros and cons of MIS approaches and their indications for selection of patients for MIS surgery
- Outline the signature steps in the TLIF procedure and safe access to the lateral lumbar spine through a transpsoas approach

## Faculty



### Gelb, Daniel - Co-Chairperson

MD  
Professor, retired  
Dept. of Orthopaedics  
University of Maryland  
Baltimore, Maryland

Dr. Daniel E. Gelb is a former professor of orthopaedics and Vice Chairman of the Department of Orthopaedics at the University of Maryland. Dr. Gelb received his medical degree from New York University School of Medicine and completed his residency in orthopaedic surgery at the University of Rochester. He then completed an orthopaedic spine fellowship at Washington University in St. Louis, Missouri, and an Yves Cotrel Fellowship for the study of surgery of the spine in Paris, France. Before coming to the University of Maryland, Dr. Gelb spent 8 years as an assistant professor of orthopaedics at Penn State University College of Medicine. He is board certified in orthopaedic surgery. Dr. Gelb is a member of the Alpha Omega Alpha national honor society for medicine. He is a recipient of the Orthopaedic Research and Education Foundation Grant for research in autocrine regulation of chondrocyte maturation and was awarded the Department of Orthopaedics and Rehabilitation Vincent D. Pellegrini, Jr., MD, Teaching Award in 2001 and 2009. His areas of clinical interest include adult and pediatric spinal deformity, including scoliosis and kyphosis, spinal tumors and infections, spinal trauma, and a full range of degenerative spinal conditions. Dr. Gelb was named The Washington Post Magazine's Super Doctor 2011 for Orthopaedics. Dr. Gelb was named a "Top Doctor" in the specialty of Orthopaedic Surgery: Spine by Baltimore magazine in 2016.



### Härtl, Roger - Co-Chairperson

MD  
Director of Spinal Surgery  
Weill Cornell Medicine  
New York, New York

Roger Härtl, M.D., is the Hansen-MacDonald Professor of Neurological Surgery and Director of Neurosurgery Spine at Weill Cornell Medicine. In addition, he is the Neurosurgical Director at Och Spine at New York-Presbyterian/Weill Cornell Medical Center and the Director of Och Spine at NewYork-Presbyterian at the Weill Cornell Medicine Center for Comprehensive Spine Care as well as the Founder of the Weill Cornell Medicine Global Neurosurgery Initiative in Tanzania. He also serves as the official neurosurgeon for the New York Giants Football Team. Dr. Härtl's clinical interest focuses on simple and complex spine surgery for degenerative conditions, tumors, and trauma as well as biological approaches for disc repair and regeneration. He is a world-renowned pioneer and leader in minimally invasive spinal surgery and computer-assisted spinal navigation surgery and augmented reality. He is actively involved in improving neurosurgical care in emerging countries as the leader of Weill Cornell's Global Neurosurgery Initiative in Tanzania. In order to achieve the very best in patient outcomes, Dr. Härtl's practice emphasizes an interdisciplinary approach to spinal disease. He collaborates closely with other specialists such as neurologists, pain specialists, sports medicine doctors and physical therapists. His patients come from all over the globe and include many physicians, surgeons, and even other neurological spine surgeons. He has been repeatedly named to the lists of New York Super Doctors, America's Top Surgeons, and America's Best Doctors, and has been included on the list of New York's Best Doctors in New York magazine. He has authored more than 250 scholarly articles in peer-reviewed journals and is the editor of four books on minimally invasive spinal surgery and biological disc repair and regeneration. He is the 2022 recipient of the AANS Humanitarian Award, one of the highest honors bestowed by the American Association of Neurological Surgeons. Dr. Härtl has provided commentary for numerous television shows on ABC, NBC, and CBS in addition to national radio shows. His expertise has been sought through interviews in the New York Times, The New York Post, The New York Daily News, and other media outlets.



### Massicotte, Eric - Education Advisor

MD, MSc, MBA, FRCSC  
Associate Professor, University of Toronto  
Medical Director of Back & Neck Program, Altum Health  
Co-Director Multidisciplinary Metastatic Spine Clinic  
Toronto, Ontario

Dr. Massicotte has focused his academic neurosurgical career in Toronto since his faculty appointment in 2002. As an Associate Professor with the University of Toronto, he recently completed an MBA to further advance his role as medical director for Back & Neck at Altum Health a division of University Health Network (UHN). Special interest in education and patient outcome for better delivery of care his collaboration with multiple colleagues have contributed to over 70 publications in peer-reviewed articles and numerous international speaking engagement.



### Baaj, Ali - Lecturer

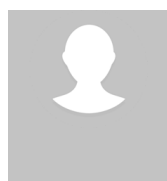
MD  
Dr.  
Associate Professor of Neurological & Orthopedic Surgery  
University of Arizona, College of Medicine  
Phoenix, Arizona

**Chou, Dean - Lecturer**

MD

Professor and Vice Chair of Neurosurgery  
University of California San Francisco  
UCSF Spine Center  
San Francisco, California

After medical school at UCSF, Dr. Chou completed his residency at The Johns Hopkins Hospital and then undertook a fellowship in complex spinal surgery at The Barrow Neurological Institute. He has been on faculty at UCSF since fellowship. He is board certified by the American Board of Neurological Surgery and has been elected by his peers for 10 consecutive years to the "Best Doctors in America". Dr. Chou is on the Advisory Board of the journal SPINE, the Editorial Boards of the Journal of Neurosurgery: Spine and the journal, Neurosurgery. He is an academic editor for PLOS ONE and previously reviewed for the Global Spine Journal. He has served on the Scientific Program Committee for the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, as an abstract reviewer for such society meetings as the Scoliosis Research Society (SRS), International Meeting of Advanced Spinal Techniques (IMAST), and the Congress of Neurological Surgeons, and as a faculty member for The American Association of Neurological Surgeons, The North American Spine Society, The Lumbar Spine Research Society, and the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. He is a two-time recipient of the Harold Rosegay Resident Teaching Award. He has over 225 peer-reviewed publications, and his publications have been featured five times as the cover article of the Journal of Neurosurgery: Spine.

**Eck, Jason - Lecturer**

DO, MS

Dr

Center for Sports Medicine and Orthopaedics  
Chattanooga, Tennessee

**Herzog, Joshua - Lecturer**

MD

Assistant Professor USUHS  
OrthoVirginia  
Richmond, Virginia

A Colonel in the U.S. Army Reserves, Dr. Joshua Herzog is a board-certified orthopedic surgeon specializing in conditions of the spine and sports medicine. He graduated summa cum laude from Vanguard University in Costa Mesa, Calif. and received his medical degree from the Uniformed Services University of the Health Sciences in Bethesda, MD. He completed his internship and residency at Madigan Army Medical Center in Fort Lewis, WA, along with a spine fellowship at Harvard in Boston, MA. He holds faculty appointments at Baylor University, Texas Tech University, and the Uniformed Services University of the Health Sciences. Most recently, Dr. Joshua Herzog was Chairman of the Department of Orthopedics and Rehabilitation at William Beaumont Army Medical Center in El Paso, Texas. Dr. Joshua Herzog is a member of several professional associations, including the American Academy of Orthopedic Surgeons, North American Spine Society, Army Flight Surgeons Association, and Special Operations Medicine Association. His research has been featured in numerous spine and orthopedic medical journals.

**Janssen, Michael - Lecturer**

Doctor of Medicine

Dr

AOSpine-Past Chairman  
Clinical Professor  
Rocky Vista University  
Spine Education & Research Foundation  
Denver, Colorado

AOSpine Fellowship- St Gallen Switzerland ( 1990) Founding Board Member of AOSpine, Past Chairman of AOSpine AOSpine German Ochoa Traveling Spine Fellow

**Lieberman, Isador - Lecturer**

MD, MBA, FRCSC

Dr

Texas Back Institute  
Plano, Texas

## AO NA Disclaimer 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.

### 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.

### 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.

### USE THE BELOW TEXT FOR DIDACTIC COURSES ONLY!

The opinions or views expressed in this live continuing medical education activity are those of the faculty and do not necessarily reflect the opinions or recommendations of AO North America or any commercial supporter. The certificate provided pertains only to the participants' completion of the course.

### 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.

### 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.

### Laboratory Waiver:

To participate in this surgical skills course, you will be required to sign a waiver of liability prior to the course. In order to participate, AONA's policy mandates that every individual must wear appropriate protective garments provided by AO NA during the lab sessions. Participants who do not sign the waiver and wear protective garments will not be allowed to participate in the laboratory sessions.

### Human Anatomic Specimens:

This course will involve exposure to and contact with human anatomic specimens. These specimens are being utilized for purposes of teaching and learning and are to be treated with the utmost respect. Participants should be familiar with and understand the potential risks involved and will be required to observe all customary safety procedures.

### Animal Anatomic Specimens:

This course will involve exposure to and contact with animal anatomic specimens. These specimens are being utilized for purposes of teaching and learning and are to be treated with the utmost respect. Participants should be familiar with and understand the potential risks involved and will be required to observe all customary safety procedures.

## Acknowledgment

### In-Kind Support

AO North America gratefully acknowledges in-kind support for equipment and technical staff from J&JMedTech.

### Educational Grant

AO North America gratefully acknowledges funding for its education activities from the AO Foundation. The AO Foundation receives funding for education from Synthes GmbH.