



# Cleveland Spine Review *Hands-On 2009*

Presented by Cleveland Clinic Center for Spine Health

A comprehensive approach for Neurosurgeons,  
Orthopaedic Surgeons, and Nurses

**3 Options to Attend:**  
July 22-25 - **Cervical Spine**  
July 24-28 - **Lumbar Spine**  
July 22-28 - **Full Course**



**July 22-28, 2009**

Lutheran Hospital • Renaissance Cleveland Hotel  
Cleveland, OH

# Cleveland Spine Review: *Hands-On 2009*



**Participants will now have three options in attending the course: Cervical Spine (July 22-25); Lumbar Spine (July 24-28); or the full course (July 22-28).**

**Cleveland Spine Review: *Hands-On 2009*** is a comprehensive course utilizing the cadaver laboratory and didactic sessions with ample time for discussion. This intensive course emphasizes the fundamentals of spine surgery, particularly biomechanical considerations, and the surgery decision-making process.

Through intensive, hands-on sessions utilizing cadavers, participants study surgical techniques and strategies for a range of procedures including: screw, lateral mass, pedicle and wire fixation, as well as occipitocervical and cervical, thoracic, lumbar, and lid sacral surgical techniques. Complex surgical exposures in all regions of the spine are emphasized.

Led by experienced faculty, the course examines the multiple adjuncts to surgery, including soft tissue and bone retractors and distractors, minimally invasive surgical techniques, spinal implants (from multiple vendors), and dissection tools. Non-operative strategies are also emphasized. Significant time is dedicated to operative indication discussions. The problem-based decision-making process is introduced and emphasized during these very interactive discussions.

Upon completion of the Cleveland Spine Review, the participant will be able to:

- Utilize problem-based decision-making to develop logical algorithms for solving complex problems.
- Employ physiological and surgical principles to spinal fusion and instrumentation.
- Apply anatomic and physiologic principles to the variety of surgical approaches available to access all regions of the spine.
- Recognize the fundamental skills required to perform the most appropriate operation for any given clinical pathology, and to recognize one's own limitations in this regard.
- Evaluate available instrumentation systems and appreciate the advantages of each, as well as the relative indications for their use.



## Why Should Nurses Attend?

Nurses have the unique opportunity to learn side by side, in didactic sessions as well as a cadaver laboratory, with surgeons in a relaxed, collegial atmosphere. Additionally, a special nursing seminar is held at noon the first day to meet fellow attendees and prepare for the content to be presented throughout the remainder of the course. A variety of nursing breakout sessions and a cadaver dedicated to nursing attendees gives participants a multifaceted learning experience. Social functions complete an extremely memorable course.

**Cleveland Clinic (OH-045/10-1-09) is an approved provider of continuing nursing education by the Ohio Nurses Association (OBN-001-91), an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.**



## Comments from the past course evaluation forms...

*This was a one of a kind course! It was wonderful dealing with a very friendly group of people. Everyone was so helpful and willing to teach. The course was intense during the day and the social activities were a great way to unwind from the day. The lectures followed by labs enhanced the learning process.*

*Another great conference. A+ for the course!*

*I feel that this was an excellent course, truly one of a kind. Faculty was great. There was a wealth of knowledge and everyone was friendly and did not mind explaining or talking to you.*

*This is by far the best course I have attended. The topics covered are all pertinent and the course is the right length. The interaction with the faculty during dissections was very valuable. The hike is a great break and occurred at the right time. It would be hard to improve the course.*

*Happy to work in a small group especially in the lab. Thank you for offering special nursing topics.*

*This is the best course ever.*

*Great conference and social events.*

# Course Faculty

## Directors

### Edward C. Benzel, MD

Cleveland Clinic, Cleveland, OH

### Marc E. Eichler, MD

Newton Centre, MA

### Lars Gilbertson, PhD

Cleveland Clinic, Cleveland, OH

### Doug Orr, MD

Cleveland Clinic, Cleveland, OH

### Gregory R. Trost, MD

University of Wisconsin, Madison, WI

## Honored Guest

### Eric Woodard, MD

New England Baptist Hospital  
Boston, MA

## Nursing Directors

### Ann Henwood, MSN, RN, CNS

Cleveland Clinic, Cleveland, OH

### Andrea Strayer, MS, A/G NP, CNRN

University of Wisconsin, Madison, WI

## Course Faculty

### Guest Faculty

### Denise Niklasch, MSN, CS-RN, ANP, CNRN

Medical College of Wisconsin  
Milwaukee, WI

### Raj Rampersaud, MD

University Health Network  
Toronto, Ontario, Canada

### Abdelfattah Saoud, MD, PhD

Ain Shams University  
Cairo, Egypt

### Cleveland Clinic Faculty

### Betty Balmat, RN

Division of Nursing

### Gordon Bell, MD

Center for Spine Health

### Katie Evanchick, PA-C

Center for Spine Health

### Fran A. Feldkamp, MS, MPAS, PA-C

Center for Spine Health

### Iain Kalfas, MD

Center for Spine Health

### Ajit Krishnaney, MD

Center for Spine Health

### Isador Lieberman, MD

Cleveland Clinic Florida

### Eric Mayer, MD

Center for Spine Health

### Daniel Mazenec, MD

Center for Spine Health

### Robert McLain, MD

Center for Spine Health

### Alfred Melillo, PA-C

Center for Spine Health

### Thomas Mroz, MD

Center for Spine Health

### Paul Ruggieri, MD

Neuroradiology

### Judith Scheman, PhD

Chronic Pain Rehabilitation  
Center for Spine Health

### Richard Schlenk, MD

Center for Spine Health

### Michael Steinmetz, MD

Center for Spine Health

### Santhosh Thomas, DO

Center for Spine Health

### Lab Faculty

### Nathaniel Brooks, MD

Cleveland Clinic Center for Spine  
Health

### Saad Chaudhary, MD

Cleveland Clinic Center for Spine  
Health

### Samuel Critides, MD

Naval Medical Center  
Portsmouth, VA

### Eldad Hadar, MD

University of North Carolina  
Chapel Hill, NC

### Fadi Hanbali, MD

Texas Tech University  
El Paso, Texas

### Ran Harel, MD

Cleveland Clinic Center for Spine  
Health

### Cumhur Kilincer, MD, PhD

Trakya University  
Edirne, Turkey

### Robert Kowalski, MD

Wilford Hall Medical Center  
Helotes, TX

### Desmond Kwok, MD

Hamilton General Hospital  
Hamilton, Ontario

### Jorge Lastra-Power, MD

San Juan, Puerto Rico

### Vincent Miele, MD

United Hospital Center  
Clarksburg, WV

### Ioannis Polythodorakis, MD

University of Crete  
Arta, Greece

### Srinivas Prasad, MD

Cleveland Clinic Center for Spine  
Health

### Sharad Rajpal, MD

Cleveland Clinic Center for Spine  
Health

### Ron Riesenburger, MD

Tufts Medical Center  
Boston, MA

### Steven Ritter, MD

Methodist Sports Medicine  
Indianapolis, IN

### Robert Talac, MD

Cleveland Clinic Center for Spine  
Health

### Andrew Utter, MD

Cleveland Clinic Center for Spine  
Health

### Andrew Wakefield, MD

Hartford Hospital  
Hartford, CT

### Brian Walsh, MD

University of Wisconsin  
Madison, WI

### Dr. Eric Woodard

Eric Woodard is Chief of Neurosurgery at New England Baptist Hospital and he is on the medical staff at the Faulkner Hospital. He also held the position of Assistant Professor in Surgery at Harvard Medical School. Dr. Woodard received a Medical Degree from Pennsylvania State University. He completed his internship in General Surgery, and a residency and chief residency in Neurological Surgery at Emory University. Following his chief residency, Dr. Woodard was a Spine Fellow at the Medical College of Wisconsin.

Dr. Woodard holds membership in the following professional societies: the American Association of Neurological Surgeons, Congress of Neurological Surgeons, Joint Section of the AANS/CNS, Spine and Peripheral Nerve, American Medical Association, and the AO North America. Dr. Woodard has contributed 14 chapters to medical books, published two abstracts, and is author of 10 original reports. He has presented over 70 special lectures addressing his major research interests including clinical application of intra-operative MRI in spinal surgery, adjunctive devices for stabilization of the spine, and molecular biology of bony fusion.



# Course Overview

## Unique Features of the Course

- Interactive Small Group Case Presentations – Participants are **encouraged** to bring cases for discussion
- Collegial Atmosphere with Ample Opportunity to Pose Questions to the Faculty and Honored Guest One-on-One and During Lectures

### Day 1 Highlights

#### Cervical Spine

- Nurses Pre-Course Lectures from 12:00-3:00 PM
- Introduction to Problem-Based Decision-Making
- Biomechanics of the Cervical Spine
- Surgery of the Craniocervical Junction: Indications and Techniques
- Sub-axial Cervical Spine: Pathologies and Treatments
- Laminoplasty Indications, Techniques and Evidence
- Ventral Surgery of the Cervical Spine Indications and Techniques
- Opening Reception

### Day 2 Highlights

#### Cervical Spine

- Dorsal Surgery of the Cervical Spine Indications and Techniques
- Orthotics
- Surgical Approaches to the Craniocervical Junction
- Cervical Deformity Evaluation and Treatment
- Cervical Disc Arthroplasty Indications and Techniques
- Lab I Craniocervical Approaches
- Ventral Approaches to the Cervical Spine and Cervico Thoracic Junction
- Lab II Anterior Cervical Approaches and Instrumentation, Arthroplasty

### Day 3 Highlights

#### AM Session – Cervical Spine

- Lab III Ventral Approaches to the Cervicothoracic Junction
- Cervical Trauma
- Lab IV Dorsal Cervical Approach, Instrumentation, Laminoplasty

#### PM Session – Cervical and Lumbar Spine Crossover

- Introductory Biomechanics
- Biomechanics of Implants and Implant Failure
- Selection of Patients for Surgery
- Pain Management
- Masqueraders of Spinal Pathology

### Day 4 Highlights

#### Cervical and Lumbar Spine Crossover

- Surgery of the Geriatric Spine
- Overview of Spinal Biomaterials
- Biomechanics of Motion Preservation
- Spinal Technologies: Where Are We Going?
- Psychology of Spinal Disorders/Outcomes Instruments – What to Use and Why
- Interventional Diagnostics – Can They Improve Outcomes?
- Spine Bowl I
- Hike and Crawfish Boil

### Day 5 Highlights

#### Lumbar Spine

- Thoracolumbar Stabilization Strategies
- Ventral Lumbar Stabilization Techniques
- Dorsal Thoracolumbar Fixation Techniques
- Thoracolumbar Trauma
- Ventral and Ventral Lateral Exposures of the T/L Spine
- Lab V: Ventral and Lateral Thoracic and Lumbar Exposures
- Biomechanics of Deformity Correction
- Lumbosacral Pelvic Fixation Techniques
- MIS Results – Tricks and Pearls
- Lab VI: Dorsal Thoracic and exposure and fixation
- Spine Bowl II

### Day 6 Highlights

#### Lumbar Spine

- Deformity Prevention and Correction
- Spine Surgery Pearls and Tricks of the Trade
- ALIF, PLIF, TLIF Indications and Techniques
- Spinal Tumor Management Strategies
- Lab VII: Dorsal Lumbar
- Vertebroplasty and Kyphoplasty
- Bone Physiology Grafting and Substitutes
- Lab VIII: Ventral Lumbar Spine
- Spine Bowl Finale
- Reception at the Corner Bowling Alley

### Day 7 Highlights

#### Lumbar Spine

- MIS Surgery Indications and Techniques
- Understanding Evidence and Outcomes
- Implants Cost Control
- Spinal Infection Management Strategies
- Course Synopsis

# General Information

## Location

Lectures and Labs – Lutheran Hospital: 1730 W. 25th Street, Cleveland  
Lodging – Renaissance Cleveland Hotel

(Note: The opening lectures on Wednesday, July 22, will be held at the Renaissance Hotel. All other lectures from Thursday through Tuesday will take place at Lutheran Hospital.)

## Hotel Reservations

Hotel reservations are separate from the course registration and are the responsibility of the participant. Rooms have been blocked for attendees at the following hotel:

### **Renaissance Cleveland Hotel**

24 Public Square, Cleveland, Ohio, USA 44113

\$144 plus tax, per night

Telephone: 216-696-5600 or 800-468-3571

The Renaissance Cleveland Hotel is located 12 miles NE from Cleveland Hopkins International Airport. Public transportation through the RTA is available from the airport to Tower City. The hotel is attached to Tower City.

## Course Schedule

- The program runs from Wednesday, July 22 through Tuesday, July 28.
- The physician program begins at 3 pm on July 22 and ends at 11:30 am on July 28.
- The pre-course RN lectures begin at 12 noon on July 22 and end at 11:30 am on July 28.
- Round-trip transportation from the Renaissance Hotel to Lutheran Hospital will be provided each day.

## Registration/Refund Policy

Register at [www.ccfme.org/spinereview09](http://www.ccfme.org/spinereview09). The course size is limited. The registration deadline is Wednesday, July 15, 2009, or until all available slots have been taken. To register after July 15, please contact Martha Tobin at 216-445-3449 or [tobinm@ccf.org](mailto:tobinm@ccf.org).

Please Note: If you register online, you should receive an immediate confirmation notice indicating that you are registered and your credit card payment was processed. The name and date of the program will be on the notice. If the notice contains the word "error" or does not contain the program information, please contact the registration office at 216-448-0777 or by e-mail at [cmeregistration@ccf.org](mailto:cmeregistration@ccf.org) to confirm receipt. If you register by fax, please allow up to two weeks for your registration to be processed. If you register by mail, please allow up to three weeks for your registration to be processed. Mailed or faxed registrations will receive a confirmation notice by U.S. mail unless requested otherwise on the registration form. To check on the status of a faxed or mailed registration, please call 216-448-0777 or e-mail [cmeregistration@ccf.org](mailto:cmeregistration@ccf.org).

In case of cancellation, a \$50 cancellation fee will be deducted from your refund. Written notification of your cancellation is required in order to process your refund. **NO REFUNDS WILL BE ISSUED AFTER JULY 15, but registration is transferable through JULY 28, 2009.**

## Accreditation

The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Cleveland Clinic Foundation Center for Continuing Education designates this educational activity for a maximum of 34.75 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Participants claiming CME credit from this activity may submit the credit hours to the American Osteopathic Association Council on Continuing Medical Education for Category 2 credit.

## Faculty Disclosure

The Cleveland Clinic Foundation Center for Continuing Education has implemented a policy to comply with the current Accreditation Council for Continuing Medical Education Standards for Commercial Support requiring resolution of all faculty conflicts of interest. Faculty declaring a relevant commercial interest will be identified in the activity syllabus

## Special Needs

The Cleveland Clinic Foundation Center for Continuing Education fully intends to comply with the legal requirements of the Americans with Disabilities Act. If you need assistance, please notify Monet Smith at 216-444-9380 at least two weeks prior to the activity.

For additional information: Ms. Martha Tobin – 800-223-2273 ext. 53449  
(e-mail) [tobinm@ccf.org](mailto:tobinm@ccf.org) / (fax) 216-445-4527





## RN Special Lectures

Please Note: RNs attend the same lectures as the physicians. They also begin with a 3-hour pre-course session on the first day. Special, nurses-only lectures include:

- Functional Anatomy and Physiology of the Spine, Spinal Cord and Peripheral Nerves
- Cervical Spine Pathology and Correlative Neuro Assessment
- Radiology Fundamentals
- Biomechanics Fundamentals
- Spinal Column Pathology and Medical Decision-Making: The Surgeon's Perspective
- Outcomes Assessment
- Lumbar Spine Pathology and Correlative Neuro Assessment
- Pre- and Post-Operative Nursing Care Considerations
- Surgical Issues from an RN Perspective
- Medical-Legal Issues
- Interactive Cervical and Lumbar Case Discussions



Rock and Roll Hall of Fame and Museum



Progressive Field



Cleveland Play House



Great Lakes Science Center

## Have Your Family Vacation in Cleveland in 2009!

For family entertainment, Cleveland offers a wealth of fun and excitement sure to intrigue families with children of all ages. From thrilling rides at area amusement parks to fun-filled attractions and interesting museums, there's plenty to see and do year round in Greater Cleveland. An official visitors guide, with dozens of savings coupons, will be sent to each registered attendee.

### Area Attractions

- Cedar Point Amusement Park
- Cleveland Metroparks Zoo and RainForest
- Rock and Roll Hall of Fame and Museum
- Great Lakes Science Center
- Lake Farmpark
- Pioneer Waterland
- Swings-n-Things
- Wildwood Waterpark
- Dover Lake Park
- Cleveland Sportsplex
- NASA John H. Glenn Research Center at Lewis Field
- Cleveland Botanical Garden
- Hale Farm and Village
- The Steamship William G. Mather
- HealthSpace Museum
- Cleveland Children's Museum
- Cleveland Museum of Natural History
- Inventure Place & National Inventors Hall of Fame
- Pro Football Hall of Fame
- Cleveland Orchestra
- Playhouse Square Center
- Cleveland Play House
- Quicken Loans Arena
- Progressive Field
- Malley's Chocolate Factory
- Harry London Candies



Cleveland Zoo



Flats entertainment center

Register online at [www.cfcme.org/spinereview09](http://www.cfcme.org/spinereview09)

# Registration Form

## Cleveland Spine Review Hands-On 2009

July 22-28, 2009  
Cleveland, Ohio

**For Office Use Only: 020566**

Fee: \_\_\_\_\_ M.O.P. \_\_\_\_\_

Date: \_\_\_\_\_ CXL/Fee: \_\_\_\_\_

Name \_\_\_\_\_ Degree \_\_\_\_\_  
First M.I. Last

Specialty \_\_\_\_\_

Address \_\_\_\_\_  Home  Business

City, State, Country, Zip Code \_\_\_\_\_

Phone # \_\_\_\_\_ Fax # \_\_\_\_\_

E-mail \_\_\_\_\_

Confirmation Notice Preference:  US Mail  Fax  E-mail

**Surgeons Only:**  Neurosurgeon  Orthopaedic Surgeon

**RNs Only:**  OR  Outpatient  Inpatient

**Course Registration Fees** (please check appropriate box)

**Nurses:**

**Full Week Option Only** - \$1500

**Surgeons:**

- Full Week** - \$4900
- Cervical** (July 22-25) \$3000
- Lumbar** (July 24-28) \$3000

**International Surgeons:**

- Full Week** - \$3475
- Cervical** (July 22-25) \$2100
- Lumbar** (July 24-28) \$2100

**Residents/Fellows:**

- Full Week** - \$2500
- Cervical** (July 22-25) \$1500
- Lumbar** (July 24-28) \$1500

**Surgeons** – Attend the full course (July 22-28) and you may bring your nurse for only \$750  
(a 50% cost reduction).

Course fee includes registration materials, continental breakfasts and lunches, Opening Reception, Crawfish Boil, and Bowling Night

**Payment Options** (please check appropriate box)

Check enclosed (made payable to: The Cleveland Clinic Educational Foundation)

Visa  MasterCard  AmEx  Discover Card # \_\_\_\_\_

Name on Card \_\_\_\_\_ Exp. Date \_\_\_\_\_

Signature \_\_\_\_\_ 3- or 4-digit Verification No. \_\_\_\_\_  
(not valid without signature) (found on back of card)

Total Amount Paid \$ \_\_\_\_\_

**Mail completed registration form and payment information to:**

The Cleveland Clinic Educational Foundation  
P.O. Box 931653  
Cleveland, OH 44193-1082

**Or, if paying by credit card, registration may be faxed to 216-448-0783**

(Once faxed, do not mail original registration.)

**Register online at [www.ccfme.org/spinereview09](http://www.ccfme.org/spinereview09)**

The Cleveland Clinic Foundation  
Neurological Institute  
9500 Euclid Avenue, J1-36  
Cleveland, OH 44195



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