

PRACTICAL CLINICS**8:00 AM–12:00 PM****005****Spinal Endoscopic Techniques to the Thoracic and Lumbar Spine****Director:**

Kevin T. Foley, MD

Faculty:

Dean Chou, MD; Curtis A. Dickman, MD; Richard G. Fessler, MD, PhD; Robert E. Isaacs, MD

This clinic provides hands-on training with thoracic and lumbar microendoscopic discectomy and thorascopy, using cadaveric material.

Clinic Fee: \$960**Learning Objectives:**

After completing this educational activity, participants should be able to:

- Describe the techniques and indications for endoscopic spinal surgery
- Review endoscopic surgery for spine
- Determine indications and contraindications for endoscopic spinal surgery

006**Cranial Radiosurgery****Director:**

Antonio A. F. De Salles, MD, PhD

Faculty:

William A. Friedman, MD, FACS; Peter C. Gerszten, MD, MPH; Alessandra Augusta Gorgulho, MD; Ajay Niranjana, MD; Michael Brian Sisti, MD, FACS

This clinic will illustrate various radiosurgery methods currently available.

Clinic Fee: \$450**Learning Objectives:**

After completing this educational activity, participants should be able to:

- Explain basic aspects of radiosurgery planning
- Discuss radiosurgery applications for brain and spinal tumors
- Discuss indications of radiosurgery for functional disease of the brain
- Explain differences among the various radiosurgery techniques available
- Apply a radiosurgery plan

007**Cranio-Cervical Junction: Surgical Approaches, Indications and Fusion Techniques****Director:**

Arnold H. Menezes, MD

Faculty:

Richard C. E. Anderson, MD; Ronald I. Apfelbaum, MD; Marc E. Eichler, MD; Michael G. Fehlings, MD, PhD; Noel I. Perin, MD, FRCS; Rick C. Sasso, MD; Paul D. Sawin, MD; Vincent C. Traynelis, MD

This clinic will include the evaluation of craniocervical anatomy and pathology. Formulation of a treatment for disorders and construction of physiological modes of therapy will be reviewed. The didactic program will be followed by hands-on demonstration. All attendees will receive a spine model.

Clinic Fee: \$660**Learning Objectives:**

After completing this educational activity, participants should be able to:

- Formulate craniocervical junction surgical approaches
- Classify and differentiate craniocervical lesions
- Identify and treat fusions

008**Basics of Spinal Stabilization, Fusion and Instrumentation****R&F****Co-directors:**

Peter Douglas Angevine, MD; Kaushik Das, MD

Faculty:

Edward C. Benzel, MD; Virany H. Hillard, MD; Michael G. Kaiser, MD; Tyler Robert Koski, MD; Eric W. Nottmeier, MD; Naresh P. Patel, MD

This course will describe the biological and biomechanical principles of spinal fusion. Through the use of didactic sessions and hands-on application, it will also describe the indications, operative approaches and surgical techniques used in spinal fusion and instrumentation of the cervical and thoracolumbar spine.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Describe biologic basis and biomechanics of spine fusion
- Describe indications of spinal fusion and instrumentation and arthroplasty
- Describe operative approaches and surgical techniques for spinal fusion and instrumentation

009**Thoracic and Lumbar Stabilization and Fusion: Indications and Complications****Co-directors:**

Regis W. Haid Jr., MD; Praveen V. Mummaneni, MD

Faculty:

Dean Chou, MD; R. Patrick Jacob, MD, FACS; Adam S. Kanter, MD; Charles Kuntz IV, MD; Frank La Marca, MD; Paul Park, MD; James C. Robinson, MD; Gregory R. Trost, MD; Michael Y. Wang, MD

A series of didactic lectures and hands-on instruction will illustrate the state-of-the-art in thoracic and lumbar fusion techniques and technology. Discussion will include treatment of degenerative disease and spinal deformity in the thoracolumbar spine. The impact of implant design, technique selection (including minimally invasive approaches) and biological agents will be discussed.

Clinic Fee: \$450**Learning Objectives:**

After completing this educational activity, participants should be able to:

- Review patient selection for thoracic and lumbar fusion
- Discuss translational and rotational techniques for correction of thoracolumbar deformity
- Review open and minimally invasive approaches for lumbar interbody fusion (ALIF, TLIF, PLF)

010**Technical Management of Intracranial Aneurysms: Site Specific Surgical Anatomy, Operation Intervention and Complication Management****Director:**

Arthur L. Day, MD, FACS

Faculty:

Daniel Louis Barrow, MD; H. Hunt Batjer, MD, FACS; Ralph G. Dacey Jr., MD

This clinic is designed to teach attendees the basics of vertebrobasilar, internal carotid, middle cerebral and anterior cerebral artery aneurysms.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Recognize the special features of aneurysms at specific sites
- Recognize potential pitfalls for safe lesion treatment
- Identify new methods of intervention for cerebral aneurysms

012**R&F****3-D Anatomy and Approaches to the Supratentorial Area and Anterior Skull Base****Director:**

Albert L. Rhoton Jr., MD

This course will provide three-dimensional microsurgical instruction on routes through the anterior and posterior cerebrum and temporal lobe; anatomy and approaches to the lateral and third ventricles and pineal region; anterior skullbase and cavernous sinus; and transsphenoidal, transmaxillary and transoral approaches.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Describe the routes to and through the anterior and posterior cerebrum and temporal lobe
- Discuss anatomy and approaches to the lateral and third ventricles and pineal region
- Discuss anterior and middle skull base including the orbit and cavernous sinus
- Discuss transsphenoidal, transmaxillary and transoral approaches

013**R&F****Interventional Neurovascular Disease: Avoidance and Management Complication****Co-directors:**

Robert H. Rosenwasser, MD, FACS; Erol Veznedaroglu, MD

Faculty:

Felipe C. Albuquerque, MD; Rocco A. Armonda, MD; Bernard R. Bendok, MD; C. Michael Cawley, MD, FACS; Brian L. Hoh, MD; Michael T. Lawton, MD; Elad I. Levy, MD; Charles J. Prestigiacomo, MD, FACS

A comprehensive discussion of complications and complication avoidance in the endovascular management of cerebral aneurysms, AVMs/AVFs, spinal AVMs, tumor and special problems associated and encountered with treatment in the endovascular suite. Hands on clinic with simulators to follow brief discussions of complication avoidance strategies.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Evaluate and apply strategies when endovascular/complications occur
- Discuss the treatment of intracranial aneurysms, AVMs, occlusive cerebrovascular disease and tumors
- Apply these procedures to avoid complications and effectively manage the complications
- Identify problems which are peculiar to treatments in the endovascular suite

014 **Dynamic Treatments of Degenerative Lumbar Disc Disease****Co-directors:**

Andrew T. Dailey, MD; Russ P. Nockels, MD

Faculty:

Martin D. Herman, MD, PhD; Brian R. Subach, MD, FACS; William C. Welch, MD

A series of didactic lectures and hands-on instructions will illustrate the state-of-the-art in lumbar interbody fusion techniques and technology. The impact of implant design and biological agents on interbody outcomes will be discussed.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Compare the various surgical approaches used for lumbar interbody fusion
- Evaluate lumbar interbody implant devices and assess the value of emerging technology
- Discuss the role of dynamic posterior stabilization in conjunction with lumbar fusion
- Predict the impact of biological agents such as rhBMP-2 on interbody outcomes

015**Negotiating with Hospitals: Challenging the Experts****Co-directors:**

Deborah L. Benzil, MD; Edie E. Zusman, MD, FACS

Faculty:

Gene H. Barnett, MD, FACS; Mark H. Camel, MD; E. Hunter Dyer, MD; M. Sean Grady, MD; Gregory B. Lanford, MD; Margaret Murphy Vosburgh, MBA

Providing optimal patient care requires neurosurgeons to be available and accessible within the current health care environment. This course will provide case studies of both success and failures from neurosurgeons that negotiated with hospitals. Building on the didactic information presented in previous years, the course will allow participants to gain important insight into how and why strategies succeeded or failed for these experienced neurosurgeons. Each case study evaluates approaches to ensure a neurosurgical career satisfaction, financial stability, expansion of practice opportunities and availability for patient care. Special attention is paid to the interwoven financial relationships between hospitals and neurosurgeons and how best to leverage a neurosurgeon's value to his/her hospital in negotiating resources. All course participants will be requested to submit their own hospital negotiation case studies for didactic discussion during the second part of the highly interactive and results oriented portion of the course.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Assess the direct and indirect financial contribution neurosurgeons make to a hospital and explain administrative “financial-speak” essential to successful negotiations
- Define alternative revenue sources for neurosurgeons in your hospital and community
- Determine practical approaches for solving current dilemmas in neurosurgeon-hospital relationships
- Discuss how to design the business case to bring a new program to your hospital

016

Minimal Access Management of Spinal Disease: Case Reviews with the Experts

Co-directors:

Anthony K. Frempong-Boadu, MD;
Noel I. Perin, MD, FRCS

Faculty:

Kevin T. Foley, MD; Larry T. Khoo, MD; Bruce E. Mathern, MD; Noel I. Perin, MD, FRCS; Luiz Pimenta, MD, PhD; Paul Santiago, MD; Najeeb M. Thomas, MD

This course is a new format to help diffuse information about Minimal Access surgery through case-based, interactive, didactic teaching. This completely case-based approach is designed to engage and help the participants explain the thought process that helps determine the faculty’s surgical decision making. The cases increase in complexity and scope, altering the scenarios until all come to explain the factors which influence our own surgical practice. As the cases become increasingly complex, the faculty and audience alike are forced to address the difficult, sometimes impossible choices encountered. The goal is for every surgeon who participates to explain the thought process behind how different surgeons, when presented with a surgical dilemma, choose to address a case. Be prepared to participate in helping form a treatment algorithm as to how to address various surgical issues, while focusing on minimally invasive spine surgery and the variety of patients who increasingly desire this form of treatment.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Evaluate and indicate patients for Minimal

Access spine surgery

- Discuss what variety of options are reasonable and available to address common spine disorders
- Develop best practice treatment algorithms to appropriately treat patients with Minimal Access spinal approaches (including when to convert to open or to avoid entirely before attempting)

017

Hands-On Peripheral Nerve of the Upper Extremities

Co-directors:

Rajiv Midha, MD, MS, FRCS;
Robert L. Tiel, MD

Faculty:

John E. McGillicuddy, MD; Robert J. Spinner, MD, FACS; Christopher J. Winfree, MD;
Lynda Jun-san Yang, MD, PhD;
Eric L. Zager, MD

This hands-on clinic uses cadaver dissection to review clinically relevant anatomy and surgical approaches to the brachial plexus and upper extremity nerves.

Clinic Fee: \$960

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss the anatomy of upper extremity nerves
- Explain surgical approaches to upper extremity nerves and the brachial plexus

018

Artificial Cervical Disc Technology

Director:

Robert J. Hacker, MD

Faculty:

Domagoj Coric, MD; Regis W. Haid Jr., MD;
Michael K. Rosner, MD; William R. Taylor, MD

Cervical motion preservation technology is changing the practice of spine surgery outside of the United States and likely will have a similar impact on our practices. This clinic will cover biomechanics, clinical science, patient selection, study results and also provide hands-on experience with devices now in clinical trials.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity,

participants should be able to:

- Discuss the various cervical disc arthroplasty devices and their biomechanical properties
- Discuss the usefulness of this technology for patients with cervical disc disease
- Compare artificial disc technology with cervical fusion from a clinical and hands on standpoint

019

Current Issues and Complexities in Spine Coding

Co-directors:

Robert R. Johnson II, MD, FACS;
John A. Wilson, MD, FACS

Faculty:

Mina Foroohar, MD, FACS; William Mitchell, MD; John G. Piper, MD

This course will cover physician procedure coding for spine procedures such as laminectomy, discectomy, corpectomy fusion, fracture treatment, tumor removal and spinal injections. We will discuss what procedures and services are included in the global surgical package for these codes and what services may be separately billed.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Describe the four major components of coding spine procedures
- Differentiate what procedures are included in the global surgical package for spine procedure codes
- Explain the use of surgical modifiers and how revenue can be improved by accurate use of these modifiers

020

R&F N&PE

Neurotrauma Critical Care Review and Update for the Practicing Neurosurgeon

Co-directors:

Craig H. Rabb, MD; Jamie S. Ullman, MD

Faculty:

Perry A. Ball, MD, FACS; Kathryn Marie Beauchamp, MD; Kevin J. Gibbons, MD, FACS; Philip Andrew Villanueva, MD

This course is designed for the practicing neurosurgeon, to provide a refresher and update on critical care of the neurosurgical

trauma patient in the ICU. The primary focus of this course in the area of non-neuro critical care, including ventilator management, fluids, nutrition, infectious disease, sedation issues, and DVT prevention.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Describe contemporary ventilator management, lung-protective strategies, and prone ventilation
- Discuss types of nutrition and impact of timing of nutrition in the head-injured patient
- Describe types and methods of fluid resuscitation and management in the trauma patient with head injury
- Describe contemporary diagnosis and management; a broad spectrum of medical issues, including infectious disease, endocrine problems, renal function and “never” events
- Be able to discuss cutting edge non-surgical management of traumatic brain injury

PRACTICAL CLINIC **8:00 AM–5:00 PM**

021

Update on Tumors for the General Neurosurgeon

Co-directors:

Jeffrey N. Bruce, MD, FACS;
Andrew T. Parsa, MD, PhD

Faculty:

Anthony L. Asher, MD; Frederick G. Barker II, MD, FACS; Linda M. Liau, MD, PhD; Joseph M. Piepmeyer, MD; Corey Raffel, MD, PhD; James T. Rutka, MD, PhD;
Raymond Sawaya, MD

This clinic will provide the practicing clinician with an up-to-date overview of current management strategies for all types of benign and malignant brain tumors. This seminar includes current research topics but emphasizes practical management issues.

Clinic Fee: \$570

Learning Objectives:

After completing this educational activity,

participants should be able to:

- Identify the state-of-the-art management of benign and malignant brain tumors including glial tumors, meningiomas, acoustic neuromas and skull base tumors
- Discuss current concepts in glioma management
- Apply current updates about brain tumors to daily clinical practice decision making

022

Intracranial Endoscopy: Indications, Techniques, Outcome and Complications

Director:

Alan R. Cohen, MD, FACS

Faculty:

Jacques Caemaert, MD, Prof; Michael R. Gaab, MD, PhD; J. Andre Grotenhuis, MD, PhD; Nakamasa Hayashi, MD, PhD; Carl B. Heilman, MD; Tenoch Herrada-Pineda, MD; Wesley A. King, MD; Christian Matula, MD; Henry W. S. Schroeder, MD, PhD; Theodore H. Schwartz, MD; Mark M. Souweidane, MD; John C. Wellons III, MD

Participants will receive didactic and hands-on instruction in intracranial endoscopy, including indications, techniques, outcomes and complications. Topics covered will include the management of hydrocephalus (including third ventriculostomy), removal of colloid cysts and other intraventricular tumors, endoscope-assisted microneurosurgery and transphenoidal procedures.

Clinic Fee: \$1,500

Learning Objectives:

After completing this educational activity, participants should be able to:

- Identify the indications for intracranial endoscopy
- Evaluate specific techniques available for intracranial endoscopy
- Discuss strategies for avoiding complications in intracranial endoscopy

023

Head Trauma: Current Treatments and Controversies with Hands-On Practical Session in Brain Monitoring and Techniques

Co-directors:

Geoffrey T. Manley, MD, PhD; Shelly D. Timmons, MD, PhD

Faculty:

M. Ross Bullock, MD, PhD; William M. Coplin, MD; Domenic P. Esposito, MD, FACS; Anthony Marmarou, PhD;
Raj K. Narayan, MD

This clinic emphasizes case studies and covers the significant breadth of the field of neurotrauma and critical care. It will be directed by a private practice neurosurgeon with emphasis on practical as well as complex case management issues. In the afternoon session you will have hands on instruction in techniques and devices for ICP monitoring, Parenchymal O2 monitoring and decompressive craniectomy.

Clinic Fee: \$570

Learning Objectives:

After completing this educational activity, participants should be able to:

- Describe the ICU management of the TBI patient
- Describe the current surgical controversies in the management of the head injured patient
- Identify the current concepts in dealing with head injured athletes
- Recognize the role of the neurosurgeon in a trauma center and discuss the concept of neurotrauma referral centers

024

N&PE

Decision Making and the Spine Patient for Nurses, APRNs and PAs

Director:

Andrea L. Strayer, MSN, CNRN

Faculty:

Dean Barone, PA-C, MPAS; Steven Casha, MD, PhD; Joseph S. Cheng, MD, MS; Marc E. Eichler, MD; Richard P. Schlenk, MD; Michael P. Steinmetz, MD; Gregory R. Trost, MD

This course will focus on specific decision making challenges that the nurse, APRN and PA face providing care for spine patients. Topics to be presented include an analysis of radiographic study indication and specifics of study indications; radiographic as well as clinical evaluation of fusion; various injection types, indications, risks and available evidence; new technology including biologics, cervical disc arthroplasty and dynamic stabilization. Presentation of the implications of new technology to practice and appropriate patient

selection for operative intervention will provide opportunity for in-depth discussion.

Clinic Fee: \$570

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss problem based decision making and differential diagnosis in regards to the spine patient
- Discuss new technologies available including biologics, cervical disc arthroplasty and lumbar spinous process
- Analyze radiographic study indications, the specifics of interpretation and the clinical as well as radiographic evaluation of fusion
- Analyze the various injection types, associated risks and indications as well as the available evidence on injection efficacy
- Discuss new technology and the implications for practice as well as decision making for selecting the right surgery for the right patient

PRACTICAL CLINIC
1:00–5:00 PM

025 

Deep Brain Stimulation: Update and New Directions

Co-directors:

Robert G. Grossman, MD;
Stephen B. Tatter, MD, PhD

Faculty:

Aviva Abosch, MD, PhD; Ron L. Alterman, MD; Jeffrey E. Arle, MD, PhD; Roy A. E. Bakay, MD; Nicholas M. Boulis, MD; Brian H. Kopell, MD; Alon Y. Mogilner, MD, PhD; Joshua M. Rosenow, MD; Ashwini D. Sharan, MD; Philip A. Starr, MD, PhD

Practical aspects of surgery for the treatment of Parkinson's disease, tremor and dystonia will be presented via lectures, videos, case presentations and device demonstrations. Emphasis will be on anatomical and physiological targeting strategies, intraoperative decision making, troubleshooting, complication avoidance and management. Cases and intraoperative scenarios will be presented for interactive discussion with the audience and faculty.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Evaluate patients for surgery for Parkinson's disease, tremor and dystonia
- Apply the principles and techniques of DBS and lesioning surgeries
- Identify anatomical and physiological localization of the STN, Gpi and thalamus

026

Percutaneous Vertebral Body Stabilization and Augmentation

Co-directors:

Robert J. Bohinski, MD, PhD;
Andrew J. Ringer, MD

Faculty:

John W. German, MD; Michael W. Groff, MD;
Ehud Mendel, MD, FACS;
William D. Tobler, MD

This clinic will explain percutaneous spinal access techniques and procedures for spinal stabilization including vertebroplasty, kyphoplasty, AxiaLIF and percutaneous instrumentation techniques identifying appropriate patients for this procedure. Participants benefit from hands-on experience in each procedure.

Clinic Fee: \$960

Learning Objectives:

After completing this educational activity, participants should be able to:

- Identify anatomical landmarks and approaches for percutaneous spinal access
- Explain the techniques for vertebral body augmentation with vertebroplasty and kyphoplasty
- Explain the approach for percutaneous pedicle screw fixation
- Discuss exposure to the percutaneous axial lumbo-sacral fixation technique

027

Spinal Radiosurgery

Co-directors:

Mark H. Bilsky, MD;
Peter C. Gerszten, MD, MPH

Faculty:

Lilyana Angelov, MD, FRCS(C); Steven D. Chang, MD; Fraser C. Henderson, MD; Jason P. Sheehan, MD

Current state-of-the-art techniques in image-

guided surgery of the spine will be reviewed. Emphasis will be placed on the current indications for and preliminary outcomes after radiosurgical ablation of benign and malignant spinal lesions.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss the most commonly used techniques for spine radiosurgery
- Explain the current indications for and preliminary outcomes after spine radiosurgery
- Explain the relative contraindications to spine radiosurgery

028

Transfacet Technology: An Alternative to Pedicle Screw Fixation with Interbody Techniques

Co-directors:

Randy O. Kritzer, MD;
Brian R. Subach, MD, FACS

Faculty:

Edward C. Benzel, MD; Larry T. Khoo, MD;
Kenneth I. Renkens, MD

Both the biomechanical properties and clinical applications of transfacet screw technology will be discussed as it relates to ALIF, TLIF and PLIF procedures. During the hands-on portion, participants will be able to do sawbone trials of all the techniques discussed.

Clinic Fee: \$660

Learning Objectives:

After completing this educational activity, participants should be able to:

- Identify the biomechanical properties of transfacet screws as compared to pedicle screw constructs
- Discuss clinical applications so that surgeons will be aware of indications
- Discuss the techniques presented
- Apply the techniques into their physician practices

029

Brain Mapping Techniques in Adult and Pediatric Neoplasms and Epilepsy

Co-directors:

Gerald A. Grant, MD;
Guy M. McKhann II, MD

Faculty:

Nicholas M. Barbaro, MD; Gene H. Barnett, MD, FACS; Mitchel S. Berger, MD, FACS; William E. Bingaman Jr., MD; Peter M. Black, MD, PhD; Isabelle M. Germano, MD, FACS; Dennis D. Spencer, MD

This clinic will provide an in-depth review of techniques and technologies that can be applied to identifying and working within eloquent areas of the brain and performing successful resections of neoplasms, epilepsy foci. The selection of surgical approaches based on non-invasive monitoring for surgery of epilepsies and brain tumors will be discussed.

Clinic Fee: \$570

Learning Objectives:

After completing this educational activity, participants should be able to:

- Identify the technologies currently available for pre- and intra-operative brain mapping for tumors and epilepsy
- Apply brain mapping techniques to daily practice
- Recognize complication avoidance in epilepsy and brain mapping techniques

030**Thoracic and Lumbar Stabilization and Fusion: Indications and Complications****Co-directors:**

Christopher I. Shaffrey, MD;
Eric J. Woodard, MD

Faculty:

Christopher Pearson Ames, MD; Sumon Bhattacharjee, MD; Charles L. Branch Jr., MD; Harel Deutsch, MD; Michael G. Kaiser, MD; Laurence D. Rhines, MD; James C. Robinson, MD; Paul D. Sawin, MD; Gregory R. Trost, MD

A series of didactic lectures and hands-on instruction will illustrate the state-of-the art in thoracic and lumbar fusion techniques and technology. Discussion will include treatment of degenerative disease and spinal deformity in the thoracolumbar spine. The impact of implant design, technique selection (including minimally invasive approaches) and biological agents will be discussed.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Review patient selection for thoracic and lumbar fusion
- Discuss translational and rotational techniques for correction of thoracolumbar deformity
- Review open and minimally invasive approaches for lumbar interbody fusion (ALIF, TLIF, PLIF)
- Discuss common complications and management associated with thoracic and lumbar fusion

031**Choosing and Developing a Neurosurgical Practice****R&F****Co-directors:**

Jonathan A. Friedman, MD;
G. Edward Vates, MD, PhD

Faculty:

H. Hunt Batjer, MD, FACS; Lawrence S. Chin, MD, FACS; William T. Couldwell, MD, PhD; Judith Rosman

This course will cover the basics of starting a neurosurgery practice upon finishing a residency. Topics will include office management, billing and coding, medical pitfalls, government regulations and building a practice.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss HIPAA and how it applies to their practice
- Discuss what actions place them at risk for a lawsuit and how to avoid them
- Explain proper coding for the most common operations
- Discuss the components of a successful office practice
- Explain how to evaluate a job opportunity

032**3-D Anatomy and Approaches to the Posterior Fossa and Posterior Skull Base****R&F****Director:**

Albert L. Rhoton Jr., MD

This course will provide three-dimensional microsurgical instruction on anatomy and approaches through the temporal bone;

cerebellum and fourth ventricle; far lateral and transcondylar approaches; approaches to the cerebellopontine angle; and anatomy and approaches to the jugular foramen.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss anatomy and approaches through the temporal bone
- Discuss approaches to the cerebellum and fourth ventricle
- Discuss far lateral and transcondylar approaches
- Discuss approaches to the cerebellopontine angle
- Discuss anatomy and approaches to the jugular foramen

033**Peripheral Nerve Injuries, Entrapments and Tumors: Examination and Evaluation****R&F****Co-directors:**

Line Jacques, MD; Robert J. Spinner, MD, FACS

Faculty:

Allan H. Friedman, MD, FACS; Allen H. Maniker, MD; John E. McGillicuddy, MD; Rajiv Midha, MD, MS, FRCS; Robert L. Tiel, MD

This clinic will provide an overview of the neurosurgeon's approach to patients with peripheral nerve injuries, entrapments and tumors.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss indications for, the timing of and types of operative intervention on peripheral nerve injuries
- Discuss patho-anatomy, clinical presentation and management of common entrapments in the upper and lower limbs
- Explain the indications for and approaches to operative interventions on different types of benign and malignant peripheral nerve tumors
- Explain the role of preoperative and intraoperative electrophysiology in the

management of patients with these common peripheral nerve lesions

034

Management of Cervical Spine Deformity and Instability

Co-directors:

Regis W. Haid Jr., MD;
Praveen V. Mummaneni, MD

Faculty:

Juan C. Bartolomei, MD; Jay Y. Chun, MD, PhD; Harel Deutsch, MD; Michael W. Groff, MD; Robert F. Heary, MD; Allan D. Levi, MD, PhD; Jeff Pan, MD; Daniel K. Resnick, MD; Juan Santiago Uribe, MD; Michael Y. Wang, MD

A comprehensive didactic and hands-on (sawbones) clinic on the management of cervical spine deformity and instability. Biomechanical principles and surgical techniques will be demonstrated. Significant time for participant input and interaction is provided.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Discuss options for anterior and posterior cervical fixation
- Discuss indications and selection criteria for fusion and for arthroplasty in the cervical spine
- Explain surgical anatomical principles related to cervical spine instrumentation techniques

035

Neurosurgical Case Coding: E&M, Cranial and Non-Spine Procedures

Director:

Robert R. Johnson II, MD, FACS

Faculty:

William Mitchell, MD; John G. Piper, MD

This course will cover physician procedure coding for evaluation and management, cranial procedures such as those to treat aneurysms, AVMs, traumatic brain injuries, epilepsy, functional disorders and tumors. The global surgical package for these codes and what services may be separately billed will be reviewed.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Differentiate what procedures are included in the global surgical package for neurosurgical CPT code from procedures that may be billed separately
- Explain the use of surgical modifiers and how revenue can be improved by accurate use of these modifiers
- Demonstrate appropriate documentation and coding for evaluation and management services

036

R&F N&PE

Update on Spinal Surgery for the Practicing Neurosurgeon

Director:

Paul C. McCormick, MD

Faculty:

Peter Douglas Angevine, MD; Michael G. Fehlings, MD, PhD; Daniel K. Resnick, MD

This clinic will provide the practicing clinician with an up-to-date overview of current management strategies of spinal disorders based on a critical analysis of recently published literature. This seminar emphasizes practical management issues based on state-of-the-art evidence.

Clinic Fee: \$450

This clinic is free to Residents, Fellows and Medical Students.

Learning Objectives:

After completing this educational activity, participants should be able to:

- Identify current management strategies for spinal disorders, including lumbar spinal stenosis, lumbar degenerative disease, cervical myelopathy and radiculopathy, spinal trauma and spinal cord injury, primary and metastatic vertebral tumors and spinal deformity
- Discuss the most recent data regarding the indications for and comparative effectiveness of new and established spinal procedures and technology such as lumbar and cervical disc arthroplasty, lumbar spinal fusion and neurophysiologic spinal cord monitoring
- Critically evaluate and apply recently published literature about the treatment of spinal disorders to daily clinical practice decision making

037

Artificial Lumbar Disc Arthroplasty: Biomechanics and Clinical Application

Director:

Edward C. Benzel, MD

Faculty:

Gordon Duthie Donald, MD; Fred H. Geisler, MD, PhD; John C. Liu, MD; Bruce E. Mathern, MD; Charles S. Theofilos, MD, PA

Biomechanics of lumbar spine comparing fusion with an artificial disc will be presented along with patient selection. Complication avoidance and management will be addressed.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Compare differences between biomechanics of fusion and artificial disc
- Discuss instantaneous axis of rotation of lumbar spine and how it relates to total joint arthroplasty
- Discuss the patient selection and preoperative evaluation
- Review the details of the surgical procedure as they relate to complication avoidance
- Describe the postoperative care with particular reference to management of complications

038

Current and Future Trends in Lumbar Interbody Fusion

Director:

Russ P. Nockels, MD

Faculty:

Christopher J. Barry, MD; James S. Harrop, MD; Kee D. Kim, MD; Charles Kuntz IV, MD; Richard P. Schlenk, MD

A series of didactic lectures and hands-on instruction will illustrate the state-of-the-art lumbar interbody fusion techniques and technology. The impact of implant design and biological agents on interbody outcomes will be discussed.

Clinic Fee: \$450

Learning Objectives:

After completing this educational activity, participants should be able to:

- Compare the various surgical approaches used for interbody lumbar fusion

- Evaluate lumbar interbody implant devices and assess the value of emerging technology
- Predict the impact of biological agents such as rh BMP-2 on interbody outcomes

OPENING RECEPTION

6:30–8:30 PM

Tonight you'll enjoy a refreshing slice of the best of everything San Diego has to offer! From the south-of-the-border style of Old Town to the elegance of La Jolla, this event has it all! As you enter this open-air reception on the Terraces of the San Diego Convention Center, you'll immediately feel energized – being surrounded by lime green, tangy orange and vibrant lemon yellow. You'll feel the energy as you listen to a tropical band, stroll by talented artists painting surfboards and much more. With something for everyone, this spectacular event, featuring a sampling of San Diego's best, is sure to leave you satisfied!

Don't miss the opportunity to hear some of our own. NJQ "Neurosurgical Jazz Quintet" featuring our own Donald O. Quest, MD, Fames E. Rose, MD, Theodore H. Schwartz, MD, R. Michael Scott, MD and Phillip R. Weinstein, MD will again entertain us during the party.

One ticket to the Opening Reception is included with each medical attendee and spouse/guest registration. Motor coaches will shuttle between the San Diego Convention Center and US Grant and Westgate Hotel, between 6:15–8:45 PM.

Residents & Fellows

Are you the Neurosurgical Top Gun?

Prove it in the AANS neurosurgical competition for residents and fellows and win a prize!

Organized by the AANS Young Neurosurgeons Committee, the competition is held at the Top Gun Booth located in the exhibit hall. Test your skills and compete against your colleagues. This three-day event will include a new spine station focusing on new imaging techniques, an updated station for ventriculostomy and an ultrasonic bone scalpel station.

Each contestant has one opportunity at each intricate and demanding surgical skill station, and is scored on his or her performance. The top five scores are posted on a leaderboard so attendees can track the scores to beat. The resident or fellow with the best score will be awarded the Neurosurgical Top Gun honor and prize.* Visit Booth #1155 and play to win!

* Additional prizes will be awarded to each individual station winner, and to the residency program of the Top Gun winner.