# Mayo Clinic Electromyography (EMG), Electroencephalography (EEG), and Neurophysiology in Clinical

Sunday, February 22 - Saturday, February 28, 2015  
Ritz-Carlton Amelia Island

## Sunday, February 22, 2015

### EMG

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>7:00</td>
<td>Registration &amp; Continental Breakfast</td>
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<tr>
<td>7:45</td>
<td>Welcome, Introductions and Pre-Test</td>
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<tr>
<td>8:00</td>
<td><strong>Nerve Conduction Studies: Basics</strong></td>
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<tr>
<td></td>
<td>Brian A. Crum, M.D.</td>
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<tr>
<td>8:45</td>
<td><strong>Uncommon Motor Nerve Conduction Studies, Including F Waves and H Reflexes</strong></td>
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<tr>
<td></td>
<td>Lyell K. Jones, Jr., M.D.</td>
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<tr>
<td>9:30</td>
<td>Break</td>
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<tr>
<td>10:00</td>
<td><strong>Uncommon Sensory Studies – Technique and Utility</strong></td>
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<tr>
<td></td>
<td>Mark A. Ross, M.D.</td>
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<tr>
<td>10:45</td>
<td><strong>Electrodiagnostic Evaluation of Neuromuscular Junction Disorders</strong></td>
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<tr>
<td></td>
<td>Brent P. Goodman, M.D.</td>
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<tr>
<td>11:30</td>
<td><strong>Pitfalls of Nerve Conduction Studies Technical and Physiologic</strong></td>
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<td>Devon I. Rubin, M.D.</td>
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<tr>
<td>12:30</td>
<td>Lunch</td>
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<tr>
<td>1:30</td>
<td><strong>Workshops I – Nerve Conduction Studies</strong></td>
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<tr>
<td></td>
<td>Upper Extremity Motor – Common</td>
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<td></td>
<td>Upper Extremity Motor – Uncommon</td>
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<tr>
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<td>Upper Extremity Sensory</td>
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<tr>
<td></td>
<td>Lower Extremity Motor and Sensory</td>
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<tr>
<td>2:30</td>
<td><strong>Workshop II – Nerve Conduction Studies</strong></td>
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<tr>
<td></td>
<td>Upper Extremity Motor – Common</td>
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<td>Upper Extremity Motor – Uncommon</td>
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<td>Upper Extremity Sensory</td>
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<tr>
<td></td>
<td>Lower Extremity Motor and Sensory</td>
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<tr>
<td>3:30</td>
<td><strong>Workshop III - Nerve Conduction Studies</strong></td>
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<tr>
<td></td>
<td>Upper Extremity Motor – Common</td>
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<td></td>
<td>Upper Extremity Motor – Uncommon</td>
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<tr>
<td></td>
<td>Upper Extremity Sensory</td>
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<tr>
<td></td>
<td>Lower Extremity Motor and Sensory</td>
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<tr>
<td>4:30</td>
<td><strong>Workshop IV - Nerve Conduction Studies</strong></td>
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<tr>
<td></td>
<td>Upper Extremity Motor – Common</td>
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<td></td>
<td>Upper Extremity Motor – Uncommon</td>
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<td>Upper Extremity Sensory</td>
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<tr>
<td></td>
<td>Lower Extremity Motor and Sensory</td>
</tr>
<tr>
<td>5:30</td>
<td>Adjourn</td>
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</tbody>
</table>

## Monday, February 23, 2015

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<tbody>
<tr>
<td>7:30</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:00</td>
<td><strong>Technique of Needle Examination</strong></td>
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<td>Devon I. Rubin, M.D.</td>
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<tr>
<td>8:30</td>
<td><strong>EMG of Uncommon Muscles</strong></td>
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<td>Eric J. Sorenson, M.D.</td>
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<tr>
<td>9:30</td>
<td>Break</td>
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<tr>
<td>9:45</td>
<td><strong>EMG Waveform Analysis: Introduction</strong></td>
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<td>Devon I. Rubin, M.D.</td>
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<tr>
<td>11:30</td>
<td><strong>Crafting the EMG Report</strong></td>
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<td>Benn E. Smith, M.D.</td>
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</tbody>
</table>
Noon       Lunch
1:00       Workshop I – Needle EMG
Common Upper Extremity
Common Lower Extremity
Uncommon Upper Extremity
Needle Technique and Practical Points

2:00       Workshop II – Needle EMG
Common Upper Extremity
Common Lower Extremity
Uncommon Upper Extremity
Needle Technique and Practical Points

3:00       Workshop III – Needle EMG
Common Upper Extremity
Common Lower Extremity
Uncommon Upper Extremity
Needle Technique and Practical Points

4:00       Workshop IV – Needle EMG
Common Upper Extremity
Common Lower Extremity
Uncommon Upper Extremity
Needle Technique and Practical Points

5:15       Dinner

6:30       An Evening of EMG Waveforms: Food, Fun, and Fibrillations
Devon I. Rubin, M.D. and Lyell K. Jones, Jr., M.D.

10:00 p.m.  Adjourn

Tuesday, February 24, 2015
EMG Approaches to Common Disorders

7:30 a.m.  Continental Breakfast
8:00       Carpal Tunnel Syndrome
            James C. Watson, M.D.
8:45       Ulnar Neuropathy
            Benn E. Smith, M.D.
9:30       Break
9:45       Evaluation of Radiculopathies
            Jeffrey A. Strommen, M.D.
10:45      Lower Limb Mononeuropathies
            Ruple S. Laughlin, M.D.
11:45      Electrodiagnostic Approach to Brachial Plexopathy
            Devon I. Rubin, M.D.
12:30 p.m.  Lunch
1:30       Workshop I
            Repetitive Stimulation
            Single Fiber EMG
            Cranial Nerve Testing and Other NCS
            Ultrasound as a Complement to NCS and EMG
2:30       Workshop II
            Repetitive Stimulation
            Single Fiber EMG
            Cranial Nerve Testing and Other NCS
            Ultrasound as a Complement to NCS and EMG
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3:30  Workshop III
Repetitive Stimulation
Single Fiber EMG
Cranial Nerve Testing and Other NCS
Ultrasound as a Complement to NCS and EMG

5:00 p.m.  Adjourn

Wednesday, February 25, 2015
EMG Approaches to Uncommon Disorders

7:30 a.m.  Continental Breakfast
7:45  Post-test
8:00  Evaluation of Common, Distal Sensorimotor Peripheral Neuropathies
Michelle L. Mauermann, M.D.

8:45  Evaluation of Uncommon and Atypical Peripheral Neuropathies
Michelle L. Mauermann, M.D.

9:30  Break
9:45  Pathological Correlates of Electrodiagnostic Studies: The Use of the Nerve Biopsy
P. James B. Dyck, M.D.

10:45  Approach to Motor Neuron Diseases
Eric J. Sorenson, M.D.

Noon  Lunch
1:00  Approach to Neuromuscular Junction Disorders
Kathleen D. Kennelly, M.D., Ph.D.

2:00  Approach to Muscle Diseases
Elliot L. Dimberg, M.D.

3:00  Break
3:15  Evaluation of Cranial Neuropathies
Kathleen D. Kennelly, M.D., Ph.D.

4:00  Nerve Conduction Studies and Electromyography in the Pediatric Population
Randa G. Jarrar, M.D.

5:00  Adjourn

Thursday, February 26, 2015
Evoked Potentials, Sleep, Autonomic, Intraoperative Monitoring, and Movement Disorders

7:30 a.m.  Continental Breakfast
8:00  Intraoperative Monitoring
Jeffery A. Strommen, M.D.

9:00  Somatosensory Evoked Potentials
James C. Watson, M.D.

10:00  Break
10:15  Visual Evoked Potentials
Jonathan L. Carter, M.D.

10:45  Brainstem Auditory Evoked Responses (BAERs)
Jonathan L. Carter, M.D.

11:15  Basics of Polysomnography
Michael H. Silber, M.B.Ch.B.

12:15 p.m.  Lunch
1:30  Evaluation of Sleep Disorders
Michael H. Silber, M.B.Ch.B.
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2:30  Evaluation of Vestibular Dysfunction
      David A. Zapala, Ph.D.
3:30  Neurophysiologic Evaluation of Autonomic Disorders
      Wolfgang Singer, M.D.
4:30 p.m. Adjourn

Friday, February 27, 2015
EEG

7:30 a.m. Continental Breakfast
8:00  Introduction and Pre-test
      Jerry J. Shih, M.D.
8:10  Physiologic Basis of EEG and Electrical Fields
      Terrence D. Lagerlund, M.D., Ph.D.
8:45  Normal EEG and Benign Variants in Adults
      Jeffrey W. Britton, M.D.
9:35  Normal EEGs in Infants and Children
      Katherine C. Nickels, M.D.
10:25 Break
10:40 Abnormal EEGs in Infants and Children
      Katherine C. Nickels, M.D.
11:30 Artifacts in EEG Recordings
      Jeffrey W. Britton, M.D.
12:15 p.m. Lunch
1:15 EEG in Partial and Generalized Epilepsies
      Jerry J. Shih, M.D.
2:05  EEG in Status Epilepticus
      Katherine H. Noe, M.D., Ph.D.
2:40 Break
3:00  Breakout Sessions  (Attendees will choose 3 sessions)
      1. Basics in EEG Interpretation and Reporting
         Approach to orderly analysis of routine EEGs
         Common pitfalls for the beginning reader
         Elements of a complete and useful report
         Katherine H. Noe, M.D., Ph.D. and Joseph F. Drazkowski, M.D.
      2. Advanced EEG Interpretation
         Laplacian montage and spectral analysis
         Terrence D. Lagerlund, M.D. and Gregory A. Worrell, M.D., Ph.D
      3. EEG in the Pediatric ICU
         Eric T. Payne, M.D.
      4. EEG Reading Session – You Make the Call
         Jeffrey W. Britton, M.D. and Jerry J. Shih, M.D.
4:45 p.m. Adjourn

Saturday, February 28, 2015
EEG Monitoring and Video EEG

7:30 a.m. Continental Breakfast
8:00  Ambulatory EEG
      William O. Tatum, D.O.
8:30  Video EEG for Spells and Seizures (Adults)
      Gregory D. Cascino, M.D.
9:30  Video EEG for Spells and Seizures (Pediatrics)
      Raj D. Sheth, M.D.
10:30 Break
10:45 **Intracranial EEG and HFOs**
Gregory A. Worrell, M.D., Ph.D.
11:25 **Video-EEG Reading Session – You Make the Call**
Jerry J. Shih, M.D. and Morning Faculty
12:15 p.m. Lunch
1:15 **EEG in the ICU: Coma, Infections, and Encephalopathies**
Elson L. So, M.D.
2:05 **EEG Misadventures**
William O. Tatum, D.O.
2:45 **Carotid Monitoring and Wada Studies**
Joseph F. Drazkowski, M.D.
3:25 Post-test
3:45 p.m. **Adjourn**