



**ACCREDITATION**

The 2009 Open Meeting of the American Shoulder and Elbow Surgeons has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the American Academy of Orthopaedic Surgeons and the American Shoulder and Elbow Surgeons.

The American Academy of Orthopaedic Surgeons is accredited by the ACCME to sponsor continuing medical education for physicians.

**CME CREDIT**

The American Academy of Orthopaedic Surgeons designates this educational activity for a maximum of 7.5 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

**EDUCATIONAL OBJECTIVES**

- Upon completion of this program, participants should be able to:
- Assess basic science and orthopaedic problems relative to the shoulder and elbow;
  - Study the indications, techniques and results of various surgical procedures;
  - Describe the management of common orthopaedic problems relative to the shoulder and elbow;
  - Permit expert panelists to put into perspective new technologies.

*Jeffrey S. Abrams, MD, Program Chair*

7:25 am

**Welcome and Announcements**

*Christopher M. Jobe, MD, President*

**SESSION I: IMPROVING RESULTS OF ROTATOR CUFF SURGERY: PATIENT SELECTION, TECHNIQUES, REHABILITATION**

*Moderators: Peter B. MacDonald, MD, and Christopher M. Jobe, MD*

**Paper #1**

7:30–7:35 am

**The Influence of Distinct Anatomic Subregions of the Supraspinatus On Humeral Rotation**

**Jeffrey J. Gates, MD**, *Jeremy Gilliland, MD, Michelle H. McGarry, MS, Daniel Acevedo, MD, Maxwell C. Park, MD, Michael J. Fitzpatrick, MD, Thay Q. Lee, PhD*

**Paper #2**

7:35–7:40 am

**Effect of Double Row Fixation on Rotator Cuff Tendon Blood Flow—A Pilot Study**

**John J. Christoforetti, MD**, *Ryan J. Krupp, MD, Steven B. Singleton, MD, Michael J. Kissenberth, MD, Chad Cook, PT, PhD, MBA, Richard J. Hawkins, MD*

**Paper #3**

7:40–7:45 am

**rhPDGF-ββ Coated Sutures Enhances Rotator Cuff Repair in an Ovine Model**

**Paper #4**

7:45–7:50 am

**Christopher Uggen, MD**, *Joshua S. Dines, MD, Michelle McGarry, MS, Daniel A. Grande, PhD, Thay Q. Lee, PhD, Orr Limpisvasti, MD*

**Improved Time—Zero Biomechanical Properties Using PLLA Graft Augmentation in a Cadaveric Rotator Cuff Repair Model**

**Jesse A. McCarron, MD**, *Ryan Milks, SBME, Joseph P. Iannotti, MD, PhD, Kathleen A. Derwin, PhD*

**Paper #5**

7:50–7:55 am

**The Effect of Matrix Metalloproteinase Inhibition on Tendon-to-Bone Healing in a Rotator Cuff Repair Model**

**Asheesh Bedi, MD**, *David Kovacevic, MD, Carolyn Hettrich, MD, Larry V. Gulotta, MD, John Ehteshami, MD, Russell F. Warren, MD, Scott A. Rodeo, MD*

7:55 am

**Discussion**

*Christopher M. Jobe, MD*

**Paper #6**

8:05–8:10 am

**Natural History of Infraspinatus Fatty Infiltration in Rotator Cuff Tears**

**Barbara Mélis, MD**, *Bryan Wall, MD, Gilles Walch, MD*

**Paper #7**

8:10–8:15 am

**Fatty Infiltration of the Supraspinatus—A Reliability Study**

**Matthew D. Williams, MD**, *Alexandre Lädermann, MD, Barbara Mélis, MD, Renaud Barthelemy, MD, Gilles Walch, MD*

**Paper #8**

8:15–8:20 am

**Arthroscopic Suprascapular Nerve Release in Retracted Rotator Cuff Tears: A Prospective Study with Preoperative and Postoperative EMG**

**Laurent Lafosse, MD**, *Carlos Kakuda, MD, Etienne Lejeune, MD, Reuben Gobezie, MD*

**Paper #9**

8:20–8:25 am

**Synovial Inflammation and Tendon Remodeling are Decreased in Partial Thickness vs. Full Thickness Rotator Cuff Tears**

**Camille M. Clinton, MD**, *Stephen F. Brockmeier, MD, Michael Shindle, MD, Alexandra DiTullio, Megan Carroll, David Kovacevic, Chih-Tung Chen, PhD, Russell F. Warren, MD*

8:25 am

**Discussion**

*Peter B. MacDonald, MD*

<b>Paper #10</b> 8:35–8:40 am	<b>Complete Removal of Muscle Load is Detrimental to Rotator Cuff Healing</b> <b>Leesa M. Galatz, MD</b> , Nichole Charlton, BA, Rosalina Das, MS, Hyun-Min Kim, MD, Stavros Thomopoulos, MD	<b>Michael G. Michlitsch, MD</b> , Gregory J. Adamson, MD, Marilyn Pink, PhD, PT, Allyson Estess, BS, James A. Shankwiler, MD, Thay Q. Lee, PhD
<b>Paper #11</b> 8:40–8:45 am	<b>Long-Term Survivorship after Surgical Repair of Full-Thickness Rotator Cuff Tears</b> <b>Peter J. Millett, MD, MSc</b> , Marilee P. Horan, BS, Katie E. Maland, BA, Karen K. Briggs, MPH, Richard J. Hawkins, MD	<b>Paper #15</b> 10:05–10:10 am <b>Functional Outcomes after Treatment of Proximal Humeral Fractures with the Use of Locked Plating and Supplemental Tension Band Fixation</b> <b>Mark Mighell, MD</b> , Ariel Chacon, MD, Jason Holcomb, Brian Badman, MD, Leanne Henderson, PA, Mark Frankle, MD, Derek Pupello, MBA
<b>Paper #12</b> 8:45–8:50 am	<b>Latissimus Dorsi Tendon Transfer in Irreparable Rotator Cuff Tears—A Modified Technique for Reduction of Failure Incidence</b> <b>Herbert F. Resch, MD</b> , Mohamed Moursy, MD, Rosemarie Forstner, MD, Mark Tauber, MD	<b>Paper #16</b> 10:10–10:15 am <b>Biomechanical Evaluation of Parallel versus Orthogonal Plate Fixation of Distal Humerus Fractures Using Two Different Testing Conditions</b> <b>Charalampos G. Zalavras, MD, PhD</b> , Michael T. Vercillo, MD, Bong-Jae Jun, MS, Karimdad Otardifard, BS, John M. Itamura, MD, Thay Q. Lee, PhD
<b>Paper #13</b> 8:50–8:55 am	<b>Long Term Results of the L'Episcopo Procedure to Restore Shoulder Function in Patients with Irreparable Postero-Superior Massive Rotator Cuff Tears—A Prospective Study</b> <b>Peter Habermeyer, MD</b> , Sven Lichtenberg, MD, Petra Magosch, MD	<b>Paper #17</b> 10:15–10:20 am <b>Periprosthetic Fracture after Shoulder Arthroplasty—A Meta-Analysis</b> <b>William A. Frisella, MD</b> , Danny P. Chan, MD, Peter D. McCann, MD, Frances Cuomo, MD
8:55 am	<b>Discussion</b> <i>Christopher M. Jobe, MD</i>	<b>Paper #18</b> 10:20–10:25 am <b>Is Surgery for Displaced, Midshaft Clavicle Fractures in Adults Cost-Effective? Results from a Multicenter Randomized Controlled Trial</b> <b>Adam M. Pearson, MD</b> , Anna Tosteson, PhD, Kenneth J. Koval, MD, Michael D. McKee, MD, Robert V. Cantu, MD, John E. Bell, MD, Andrew Crapser, BA, Milena Vincente, RN, Garrett C. Davis, MD
9:05 am	<b>How-To Video: Arthroscopic Techniques to Diagnose and Repair Subscapularis Tears</b> <i>Stephen S. Burkhart, MD</i>	
	<b>SYMPOSIUM I: MASSIVE CUFF TEARS: A COMMON DILEMMA</b> <hr/> <i>Moderator: Joseph P. Iannotti, MD, PhD</i>	
9:10 am	<b>Decision-Making Algorithms</b> <i>Richard J. Hawkins, MD</i>	10:25 am <b>Discussion</b> <i>Jesse B. Jupiter, MD and Peter D. McCann, MD</i>
9:15 am	<b>Ignore the Cuff Tear, Treat the Biceps</b> <i>Gilles Walch, MD</i>	10:35 am <b>How-To Video: Posterior Surgical Approaches to the Glenohumeral Joint</b> <i>Peter A. Cole, MD</i>
9:20 am	<b>Rotator Cuff Repair Options</b> <i>Jeffrey S. Abrams, MD</i>	
9:25 am	<b>Role of Reverse Prosthesis</b> <i>Mark A. Frankle, MD</i>	<b>SYMPOSIUM II: CONTROVERSIES IN PROXIMAL HUMERUS FRACTURES</b> <hr/> <b>Case Presentation: 68-Year-Old Active Patient with Comminuted Shoulder Fracture</b> <i>Moderator: Frances Cuomo, MD</i>
9:30–10:00 am	<b>Break</b>  <b>SESSION II: TRAUMA</b> <hr/> <i>Moderators: Jesse B. Jupiter, MD and Peter D. McCann, MD</i>	10:40 am <b>When to Treat Nonoperatively</b> <i>Charles A. Rockwood, Jr., MD</i>
<b>Paper #14</b> 10:00–10:05 am	<b>Biomechanical Comparison of a Modified Weaver-Dunn and a Novel Free Tissue Graft Reconstruction of the Coracoclavicular and Acromioclavicular Ligamentous Complexes</b>	10:45 am <b>When to Close Reduce and Pin</b> <i>Evan L. Flatow, MD</i>
		10:50 am <b>When to Open Reduce, Internally Fixate</b> <i>David L. Helfet, MD</i>

10:55 am	<b>When to Use IM Nail</b> <i>Clifford B. Jones, MD</i>		
11:00 am	<b>When to Use Prosthesis</b> <i>Louis U. Bigliani, MD</i>		
11:05 am	<b>Discussion</b>		
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	<b>SESSION III: INSTABILITY: BONE GRAFTS AND COMPLICATIONS</b>		
	<i>Moderators: Jon J.P. Warner, MD and James E. Tibone, MD</i>		
<b>Paper #19</b>		<b>Paper #24</b>	
11:10–11:15 am	<b>An Analysis of Shoulder Laxity in Patients Undergoing Shoulder Surgery</b> <b>Xiaofeng Jia, MD, PhD</b> , <i>Jong Hun Ji, MD, Michael T. Freehill, MD, Steve A. Petersen, MD, Edward G. McFarland, MD</i>	12:50–12:55 pm	<b>Efficacy of Surgical Preparation Solutions in Shoulder Surgery</b> <b>Matthew D. Saltzman, MD</b> , <i>Gordon W. Nuber, MD, Stephen M. Gryzlo, MD, Geoffrey S. Marecek, MD, Jason L. Koh, MD</i>
<b>Paper #20</b>		<b>Paper #25</b>	
11:15–11:20 am	<b>What is the Stabilizing Mechanism of the Latarjet Procedure?</b> <b>Nobuyuki Yamamoto, MD</b> , <i>Takayuki Muraki, MD, Robert H. Cofield, MD, John W. Sperling, MD, Eiji Itoi, MD, Kai-Nan An, PhD, Gilles Walch, MD, Scott P. Steinmann, MD</i>	12:55–1:00 pm	<b>A Radiographic Analysis of the Effect of Glenosphere Position and Prosthetic Design on Scapular Notching Following Reverse Total Shoulder Arthroplasty</b> <b>Laurence B. Kempton, MD</b> , <i>J. Michael Wiater, MD</i>
<b>Paper #21</b>		<b>Paper #26</b>	
11:20–11:25 am	<b>Normalization of Glenohumeral Articular Contact Pressures after Either Latarjet or Iliac Crest Bone Grafting Procedure: Impact of Graft Type, Position, and Coracoid Orientation</b> <i>Neil Ghodadra, MD, Aman Gupta, BS, Elizabeth Shewman, MS, Jordan Goldstein, MD, Nikhil N. Verma, MD, Bernard R. Bach, Jr., MD, Anthony A. Romeo, MD, Matthew T. Provencher, MD</i>	1:00–1:05 pm	<b>Complications and Results of Reverse Total Shoulder Arthroplasty: A North American Multicenter Study</b> <b>David N. Collins, MD</b> , <i>Michael A. Wirth, MD, Carl Basamania, MD</i>
<b>Paper #22</b>		<b>Paper #27</b>	
11:25–11:30 am	<b>Hill–Sachs Defects and Repair Using Osteoarticular Allograft Transplantation: Biomechanical Analysis Using a Joint Compression Model</b> <b>Jon K. Sekiya, MD</b> , <i>Alexis C. Wickwire, BS, Jens H. Stehle, MD, Richard E. Debski, PhD</i>	1:05–1:10 pm	<b>Trabecular Metal Reverse Shoulder Arthroplasty and the Lack of Scapular Notching</b> <i>Gregory P. Nicholson, MD, Anand M. Murthi, MD</i>
<b>Paper #23</b>		<b>Paper #28</b>	
11:30–11:35 am	<b>The Presentation and Management of Post-Surgical Glenohumeral Chondrolysis in Young Adults</b> <i>Daniel R. L'Heureux, BS, Allison G. McNickle, BA, Matthew T. Provencher, MD, Anthony A. Romeo, MD, Brian J. Cole, MD, MBA</i>	1:10–1:15 pm	<b>Instability after Reverse Shoulder Arthroplasty</b> <b>Ryan T. Bicknell, MD, MSc, FRCSC</b> , <i>Gilles Walch, MD, Laurent Novi-Josserand, MD, Alex Bertelsen, PA-C, Frederick Matsen, MD</i>
11:35 am	<b>Discussion</b> <i>Jon J.P. Warner, MD and James E. Tibone, MD</i>	<b>Paper #29</b>	
11:45 am–12:45 pm	<b>Lunch</b>	1:15–1:20 pm	<b>The Paradoxical Effects of Tendon Transfer in Reverse Total Shoulder Arthroplasty: A Biomechanical Model</b> <b>William J. Robertson, MD</b> , <i>Daniel Choi, MS, M.Eng, Gary Hayeck, PhD, Kate Meyers, BS, M.Eng, Timothy Wright, PhD, Donald L. Bartel, PhD, Russell F. Warren, MD</i>
		1:20 pm	<b>Discussion</b> <i>David M. Dines, MD and Michael A. Wirth, MD</i>
		1:30 pm	<b>Neer Award Presentation</b>
			<b>SYMPOSIUM III: WHAT SHOULD WE DO WITH THE ULNAR NERVE?</b>
			<i>Moderator: Bernard F. Morrey, MD</i>
		1:35 pm	<b>Decompression without Transfer</b> <i>Shawn O'Driscoll, PhD, MD</i>

1:40 pm	<b>Subcutaneous Transposition</b> <i>James R. Andrews, MD</i>
1:45 pm	<b>Submuscular Transposition</b> <i>Graham J.W. King, MD</i>
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<b>SESSION V: ELBOW</b>	
<i>Moderators: J. Kenneth Faber, MD, FRCSC and William D. Regan, Jr., MD</i>	
<b>Paper #30</b> 1:50–1:55 pm	<b>Is Elbow Arthroscopy Safe in Patients with a Subluxating Ulnar Nerve or Previous Ulnar Nerve Transposition?</b> <b>Deenesh T. Sahajpal, MD, FRCSC</b> , Shawn W. O'Driscoll, PhD, MD
<b>Paper #31</b> 1:55–2:00pm	<b>Prevention of Nerve Injuries Using A Safety-Driven Step-Wise Technique for Arthroscopic Capsulectomy of the Elbow</b> <b>Jennifer M. Wolf, MD</b> , Davide Blonna, MD, Shawn W. O'Driscoll, PhD, MD
2:00 pm	<b>Discussion</b> <i>J. Kenneth Faber, MD, FRCSC</i>
<b>Paper #32</b> 2:10–2:15 pm	<b>The Role of the Coronoid Process, Lateral Collateral Ligament and Radial Head in Varus Stability of the Elbow</b> <b>Stephen E. Fern, MD</b> , John R. Owen, BS, Nicholas J. Ordyna, MD, Jennifer S. Wayne, PhD, N. Douglas Boardman, MD
<b>Paper #33</b> 2:15–2:20 pm	<b>The Effect of Anteromedial Facet Fractures of the Coronoid and Associated Ligament Injury on Elbow Stability and Kinematics</b> <b>J.W. Pollock, MD, FRCSC</b> , Jamie Brownhill, BESC, Louis Ferreira, BESC, Colin P. McDonald, BESC, James A. Johnson, PhD, Graham J.W. King, MD, MSc, FRCSC
<b>Paper #34</b> 2:20–2:25 pm	<b>Effect of Radial Head Prostheses Design on Radiocapitellar Joint Stability</b> <b>Jun-Gyu Moon, MD, PhD</b> , Lawrence J. Berglund, BS, Zachary Domire, PhD, Kai-Nan An, PhD, Shawn W. O'Driscoll, PhD, MD
<b>Paper #35</b> 2:25–2:30 pm	<b>Failure Mechanisms of a Linked Semi-Constrained Total Elbow Arthroplasty for Post-Traumatic Arthritis: A Report with 2-20 Year Follow-Up</b> <b>Thomas W. Throckmorton, MD</b> , Peter C. Zarkadas, MD, Joaquin Sanchez-Sotelo, MD, PhD, Bernard F. Morrey, MD
2:30 pm	<b>Discussion</b> <i>William D. Regan, Jr., MD</i>

**SESSION VI:  
TECHNICAL PEARLS TO IMPROVE  
TOTAL ARTHROPLASTY RESULTS**

*Moderators: W.Z. (Buz) Burkhead, Jr., MD and Ralph Hertel, MD*

**Paper #36**  
2:40–2:45 pm

**Propionibacterium Acnes Infections in Revision Shoulder Surgery: An Analysis of 20 Consecutive Cases with Positive Intra-operative Cultures**  
*Ryan T. Bicknell, MD, MSc, FRCSC, Paul S. Pottinger, MD, Alex Bertelsen, PA-C, Frederick Matsen, MD*

**Paper #37**  
2:45–2:50 pm

**Accuracy of CT Based Measurements of Glenoid Version for Total Shoulder Arthroplasty**  
**Heinz R. Hoenecke, MD**, Juan C. Hermida, MD, Cesar Flores-Hernandez, BS, Darryl D. Lima, MD, PhD

**Paper #38**  
2:50–2:55 pm

**Can Computer-Aided Surgery Improve Accuracy of Glenoid Positioning in Total Shoulder Arthroplasty? A Prospective-Randomized Clinical Study**  
**Joern Kircher, MD**, Markus Wiedemann, MD, Petra Magosch, MD, Peter Habermeyer, MD

**Paper #39**  
2:55–3:00 pm

**Simulation of Surgical Glenoid Resurfacing Using Three-Dimensional Radiographic Analysis of the Arthritic Glenohumeral Joint: The Amount of Retroversion That Can Be Corrected**  
*Douglas D. Nowak, MD, Maher J. Bahu, MD, Thomas R. Gardner, MCE, Aaron S. Covey, MD, William N. Levine, MD, Louis U. Bigliani, MD, Christopher S. Ahmad, MD*

**Paper #40**  
3:00–3:05 pm

**Posterior Glenoid Bone Grafting in TSA for Posterior Glenoid Wear-Technique and Radiographic Outcome**  
**Gregory P. Nicholson, MD**, Stacy L. Twigg, PA-C

**Paper #41**  
3:05–3:10 pm

**Radiographic Comparison of Pegged and Keeled Glenoid Components Using Modern Cementing Techniques: A Prospective Randomized Study**  
**Joanne E. Labriola, MD**, T. Bradley Edwards, MD, Rodney J. Stanley, MD, Daniel P. O'Connor, MD, Hussein A. Elkousy, MD, Gary M. Gartsman, MD

3:10 pm

**How-To Video: Improving Glenoid Exposure and Prosthesis Insertion**  
*Tom R. Norris, MD*

3:15 pm	<b>Discussion</b> <i>W.Z. (Buz) Burkhead, Jr., MD and Ralph Hertel, MD</i>
3:25 pm	<b>Break</b>
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<b>SESSION VII: IMPORTANT FACTORS REGARDING THE HUMERUS</b>	
<i>Moderator: Gerald R. Williams, Jr., MD</i>	
<b>Paper #42</b> 3:45–3:50 pm	<b>The Effects of Variation in Humeral Anatomy, Prosthetic Design and Surgical Technique in Replicating Normal Humeral Anatomy</b> <b>Jinyoung Jeong, MD, PhD</b> , <i>Joseph P. Iannotti, MD, PhD</i>
<b>Paper #43</b> 3:50–3:55 pm	<b>Cemented versus Uncemented Fixation of Humeral Components in Total Shoulder Arthroplasty for Osteoarthritis of the Shoulder</b> <i>Robert B. Litchfield, MD, FRCSC</i> , <b>Michael McKee, MD, FRCSC</b> , <i>Robert Balyk, MD, FRCSC, Scott Mandel, MD, FRCSC, Richard Holtby, MD, FRCSC, Robert Hollinshead, MD, FRCSC, Robert McCormack, MD, FRCSC, Darren Drosdoweck, MD, FRCSC</i>
<b>Paper #44</b> 3:55–4:00 pm	<b>Radiographic and Histopathological Analysis of Osteolysis after Total Shoulder Arthroplasty</b> <b>Christopher K. Kepler, MD, MBA</b> , <i>Shane J. Nho, MD, MS, Owen L. Ala, BS, Manjula Bansal, MD, Edward V. Craig, MD, Timothy M. Wright, PhD, Russell F. Warren, MD</i>
4:00 pm	<b>Discussion</b> <i>Gerald R. Williams, Jr., MD</i>

**SYMPOSIUM IV: WHAT CAN WE OFFER TO A PATIENT WITH A PAINFUL PROSTHESIS?**

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	<b>Case Presentation: 64-year-old with Shoulder Pain following Total Arthroplasty</b> <i>Moderator: Edward V. Craig, MD</i>
4:10 pm	<b>Is Patient Infected?</b> <i>John W. Sperling, MD, MBA</i>
4:15 pm	<b>Postoperative Stiffness?</b> <i>John J. Brems, MD</i>
4:20 pm	<b>Glenoid Looseness?</b> <i>Russell F. Warren, MD</i>
4:25 pm	<b>Rotator Cuff Tear?</b> <i>Christian Gerber, MD</i>
4:30 pm	<b>Converting Hemis to Total?</b> <i>Robert H. Cofield, MD</i>
	<b>Case Presentation: Cuff Tear Arthropathy; Decision to Treat with Shoulder Prosthesis or Reverse Prosthesis?</b> <i>Moderator: George M. McCluskey, III, MD</i>
4:35 pm	<b>Shoulder Prosthesis</b> <i>Frederick A. Matsen, III, MD</i>
4:40 pm	<b>Reverse Prosthesis</b> <i>Pascal Boileau, MD</i>
4:45 pm	<b>Questions and Answers</b>
5:00 pm	<b>Adjourn</b>

**DISCLOSURE STATEMENT**

Each participant in the meeting has been asked to disclose if he or she has received something of value from a commercial company or institution, which relates directly or indirectly to the subject of their presentations. The American Shoulder and Elbow Surgeons has identified the options to disclose as follows:

- a. Research or institutional support has been received;
- b. Miscellaneous non-income support (e.g., equipment or services), commercially derived honoraria, or other non-research related funding (e.g., paid travel);
- c. Royalties have been received;
- d. Stock or stock options held;

- e. Consultant or employee;
- n. The author (or member of their immediate family) has not received anything of value from or own stock (or stock options) in a commercial company or institution related directly or indirectly to the subject of his/her presentation. Complete disclosure information for all faculty and presenters will be listed in the final program.

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