



**ACCREDITATION**

This activity 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.

**OBJECTIVES**

Upon completion of this program, participants should be able to:

- Review basic science and orthopaedic problems relative to the shoulder and elbow.
- Examine 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 new technologies into perspective.

**Gregory P. Nicholson, MD, Program Chair**

**SESSION I: TRAUMA**

*Moderator: Guido Marra, MD*

**Paper #1**

7:30-7:35 am

**Treatment of Traumatic Posterior Sternoclavicular Dislocation**

*Michael A. Wirth, MD, **Gordon I. Groh, MD**,  
Charles A. Rockwood, Jr., MD*

**Paper #2**

7:35-7:40 am

**Complications of Proximal Humeral Locked Plating**

***Anand M. Murthi, MD**, Bryan Butler, MD*

**Paper #3**

7:40-7:45 am

**The Importance of Centering of the Humeral Head in Acute Fracture Arthroplasty related to the Healing of the Greater Tuberosity**

***Peter Habermeyer, Prof. MD**, Sven Roessing, MD,  
Petra Magosch, MD, Sven Lichtenberg, MD*

7:45-7:55 am

**Discussion**

**SESSION II: BIOLOGY OF TISSUES**

*Moderator: Robert Hollinshead, MD*

**Paper #4**

7:55-8:00 am

**Nanofiber-based Scaffold for Rotator Cuff Repair and Augmentation**

***Helen H. Lu, PhD**, Kristen L. Moffat, MS,  
Jeffrey P. Spalazzi, MS, Stephen B. Doty, PhD,  
William N. Levine, MD*

**Paper #5**

8:00-8:05 am

**In-Vitro and In-Vivo Testing of a Tissue Engineered “Off-the-Shelf” Scaffold to Enhance Rotator Cuff Tendon Healing**

***Andrew J. Leo, MD**, Joshua S. Dines, MD,  
Pasquale Razzano, MS, David M. Dines, MD,  
Daniel Grande, PhD*

**Paper #6**

8:05-8:10 am

**Frog Glue Enhances Rotator Cuff Repair Ex Vivo**

***Neal L. Millar, MD**, Tim A. Bradley, MD,  
Nicola A. Walsh, MD, Richard C. Appleyard, PhD,  
Michael J. Tyler, DSc, George A.C. Murrell, MD, PhD*

**Paper #7**

8:10-8:15 am

**Local Anesthetics Induce Chondrocyte Death in Bovine Articular Cartilage Discs in a Dose and Duration Dependent Manner**

***Ian Lo, MD**, May Chung, BSc, Sherri Liang, BSc,  
Paul Sciore, PhD, Richard Boorman, MD,  
Kenneth Muldrew, PhD, Gail Thornton, PhD,  
Jerome Rattner, PhD*

8:15-8:30 am

**Discussion**

8:30-9:15 am

**Symposium: Distal Clavicle Injuries: AC Separations and Fractures, When and How to Treat.**

*Moderator: **Michael L. Pearl, MD***

Panel:

**Discussion focusing on: 1. When Should AC Separations be Fixed, 2. Does Surgical Technique for Acute versus Chronic Differ, 3. Weaver Dunne versus Tendon Graft and, 4. Surgical versus Conservative Management of Type II Distal Clavicle Fracture.**

*Moderator: **Michael L. Pearl, MD***

**AC Separations, Classification, Indications and a video of “How I Do a Weaver-Dunne.”**  
**Herbert Resch, MD**

**Anatomy and Biomechanics of the Distal Clavicle and Acromio-Clavicular Articulation: Implications for Surgical Technique using a Tendon Graft.**

***Augustus D. Mazzocca, MD***

**Distal Clavicle Fractures, Classification, Indications and Review of Surgical Techniques. How Do These Injuries Differ from: 1. Other Clavicle Fractures and, 2. AC Separations. My Preferred Method(s) of Fixation.**  
***Michael D. McKee, MD***

**SESSION III: INSTABILITY AND UPPER EXTREMITY ATHLETES**

*Moderator: Jeffrey S. Abrams, MD*

**Paper #8**

9:15-9:20 am

**The Evolution of Dislocation Arthroplasty in First Time Anterior Shoulder Dislocation in the Young. 223 Shoulders Prospectively Followed for 25 years**

**Lennart Hovelius, MD**, Bjorn Sandstrom, MD, Modolv Saeboe, MD, Bengt-Goran Augustini, MD, Lars Krantz, MD, Hans Fredin, MD, Bo Tillander, MD, Ulf Skoglund, MD, Ulf Sennerby, MD

**Paper #9**

9:20-9:25 am

**Arthroscopic Rotator Interval Closure: Effect on Stability and Range of Motion in an Anterior and Posterior Stabilization Model**

**Matthew T. Provencher, MD**, Timothy S. Mologne, MD, Michio Hongo, MD, PhD, Kristi Zhao, MS, Anthony A. Romeo, MD, Kai N. An, PhD

**Paper #10**

9:25-9:30 am

**The Development and Validation of a Functional Assessment Tool for the Upper Extremity in the Overhead Athlete**

**Benjamin G. Domb, MD**, Frank Alberta, MD, Scott Bissell, MD, Karen Mohr, PT, Lewis A. Yocum, MD, Neal S. ElAttrache, MD, Frank W. Jobe, MD

**Paper #11**

9:30-9:35 am

**Hypertrophy of the Anterior Coracoacromial Ligament in the Young Overhead Athlete as a Cause of Shoulder Pain**

**Gregory P. Nicholson, MD**, Stacy L. Twigg, PA-C, John Paul Rue, MD

**Paper #12**

9:35-9:40 am

**Prospective Outcome after Arthroscopic Repair of Isolated Type II SLAP Lesions**

**Stephen F. Brockmeier, MD**, James E. Voos, MD, Riley J. Williams, III, MD, David W. Altchek, MD, Stephen J. O'Brien, MD, Frank A. Cordasco, MD, MS, Answorth A. Allen, MD

9:40-9:55 am

**Discussion**

9:55-10:00 am

**How-to-Video: Latarjet Reconstruction for Antero-Inferior Glenoid Bone Loss**

*Thomas Bradley Edwards, MD*

10:00-10:25 am

**Break**

**SESSION IV: ROTATOR CUFF I**

*Moderator: Leesa M. Galatz, MD*

**Paper #13**

10:25-10:30 am

**The Effect of Rotator Cuff Tear Size, Row Configuration, and Associated Pathology on Ultrasound and Clinical Outcomes after Arthroscopic Rotator Cuff Repairs**

**John D. MacGillivray, MD**, Ronald S. Adler, MD, PhD, Shane J. Nho, MD, MS, Edward V. Craig, MD, Frank A. Cordasco, MD, MS, Answorth A. Allen, MD, Russell F. Warren, MD, David W. Altchek, MD

**Paper #14**

10:30-10:35 am

**Arthroscopic Rotator Cuff Repair: Prospective Evaluation with Sequential Ultrasonography**

*Daniel P. Tomlinson, MD, Ronald S. Adler, MD, PhD, Shane J. Nho, MD, MS, Frank A. Cordasco, MD, MS, Edward V. Craig, MD, Russell F. Warren, MD, John D. MacGillivray, MD, David W. Altchek, MD*

**Paper #15**

10:35-10:40 am

**Vascularity of the Rotator Cuff after Arthroscopic Repair: Characterization using Contrast-Enhanced Ultrasound**

**Seth C. Gamradt, MD**, Ronald S. Adler, MD, PhD, Alex Maderazo, MD, Russell F. Warren, MD, David W. Altchek, MD, Stephen Fealy, MD

10:40-10:50 am

**Discussion**

**SESSION V: IMAGING**

*Moderator: Mark W. Rodosky, MD*

**Paper #16**

10:50-10:55 am

**Orthopaedic versus Radiology Reading of Shoulder MRI Scans: A Prospective Study**

**Stephen C. Weber, MD**, Jeffrey I. Kauffman, MD, Carol Parise, PhD

**Paper #17**

10:55-11:00 am

**Increased Incidence of False Positive Rotator Cuff Pathology in MRI's of Patients with Adhesive Capsulitis**

**Stephen L. Brown, MD**, Bryan J. Loeffler, MD, Donald F. D'Alessandro, MD, James E. Fleischli, MD, Patrick M. Connor, MD

11:00-11:10 am

**Discussion**

**SESSION VI: ROTATOR CUFF II**

*Moderator: Matthew L. Ramsey, MD*

**Paper #18**

11:10-11:15 am

**Shoulder Strength of Individuals with Asymptomatic Rotator Cuff Tear**

**Hyun-Min Kim, MD**, Ari Zelig, BA, Anthony S. Wei, MD, Sharlene A. Teefey, MD, Jay D. Keener, MD, Leesa M. Galatz, MD, Ken Yamaguchi, MD

**Paper #19**

11:15-11:20 am

**Impingement Syndrome: Temporal Outcomes of Non-operative Treatment**

*Craig A. Cummins, MD, Lisa M. Sasso, MD, Daniel Nicholson, MD*

**Paper #20**

11:20-11:25 am

**Does Slower Rehabilitation Lead to Stiffness Following Arthroscopic Rotator Cuff Repair?**

**Bradford O. Parsons, MD**, Raymond A. Klug, MD, James N. Gladstone, MD, Kenneth J. Accousti, MD, Evan L. Flatow, MD

**Paper #21**

11:25-11:30 am

**Pectoralis Major Transfer for Treatment of Irreparable Subscapularis Tendon Tears: How Well Does It Really Work?**

**Laurence D. Higgins, MD**, Mehmet Ozbaydar, MD, Bassem Elhassan, MD, David S. Diller, BA, Daniel Massimini, BS, Jon J.P. Warner, MD

11:30-11:40 am	<b>Discussion</b>	1:52-1:59 pm	<b>Diagnosis of UCL Injury: Role of History, PE, Imaging, Arthroscopy and finally Exploration of the Ligament to Determine UCL Deficiency in Throwers</b> <i>John E. Conway, MD</i>
11:40 am-12:00 pm	<b>Symposium: Coding, Cost and Reimbursement</b> <i>Richard J. Friedman, MD, FRCSC</i> Information on the current status of coding, charging, cost and reimbursement for Reverse Arthroplasty and Double Row Arthroscopic RCR.	1:59-2:06 pm	<b>Surgical Pearls for UCL Reconstruction</b> <i>David W. Altchek, MD</i>
12:00-1:00 pm	<b>Lunch Break</b>	2:06-2:13 pm	<b>Post-op Care and Rehab: Algorithm for Return to Throwing</b> <i>Marc R. Safran, MD</i>
	<b>SESSION VII: ELBOW</b>	2:13-2:20 pm	<b>Realistic Results and Expectations and Time Frames</b>
	<i>Moderator: Shawn W. O'Driscoll, PhD, MD</i>	2:20-2:25 pm	<b>Discussion</b>
<b>Paper #22</b>			<b>SESSION VIII: SHOULDER ARTHROPLASTY I</b>
1:00-1:05 pm	<b>Clinical Outcomes of Arthroscopic Treatment of OCD Lesion of the Capitellum</b> <i>Jonathan D. Chappell, MD, Neal S. ElAttrache, MD</i>		<i>Moderator: Evan L. Flatow, MD</i>
<b>Paper #23</b>		<b>Paper #27</b>	<b>Survivorship Analysis of the Glenoid Component in Total Shoulder Arthroplasty</b> <i>Tyler J. Fox, MD, Akin Cil, MD, John W. Sperling, MD, Joaquin Sanchez-Sotelo, MD, Cathy D. Schleck, BS, Robert H. Cofield, MD</i>
1:05-1:10 pm	<b>Corticosteroid Injection for Lateral Elbow Pain: A Randomized Placebo Controlled Clinical Trial</b> <i>Marjolijn Henket, MD, Anneluuk L.C. Lindenhovius, MSc, Jamie Cowan, BA, Santiago Lozano-Calderson, MD, Chaitanya S. Mudgal, MD, Jesse B. Jupiter, MD, David Ring, MD, PhD</i>	2:25-2:30 pm	
<b>Paper #24</b>		<b>Paper #28</b>	<b>Improved Accuracy and Reliability of Computer Assisted Glenoid Implantation in Total Shoulder Arthroplasty: A Randomized Controlled Trial</b> <i>Duong Nguyen, MD, FRCSC, Louis Ferreira, BSc, Jamie Brownhill, PhD, Graham King, MSc, MD, FRCSC, Darren Drosdowech, MD, FRCSC, Kenneth Faber, MD, MHPE, FRCSC, Jim Johnson, PhD</i>
1:10-1:15 pm	<b>Lateral Collateral Ligament Repair of the Elbow using Transosseous Sutures Restores Joint Kinematics and Stability</b> <i>Gillian S. Fraser, BSc, Graham J. King, MSc, MD, FRCSC, James A. Johnson, PhD, Jamie E. Pichora, MSc, Louis F. Ferreira, BSc, Jamie R. Brownhill, BEng</i>	2:30-2:35 pm	
<b>Paper #25</b>		<b>Paper #29</b>	<b>Management of Gleno-humeral Arthritis in Young Patients with Biological Resurfacing of the Glenoid</b> <i>Jon J.P. Warner, MD, Mehmet Ozbaydar, MD, Bassem Elhassan, MD, David S. Diller, BA, Daniel Massimini, BS, Laurence D. Higgins, MD</i>
1:15-1:20 pm	<b>Clinical Outcomes of the DANE TJ Technique to Treat Elbow MCL Insufficiency</b> <i>Joshua S. Dines, MD, Neal S. ElAttrache, MD, John Conway, MD, Wade Smith, PA-C, Christopher S. Ahmad, MD</i>	2:35-2:40 pm	
<b>Paper #26</b>		<b>Paper #30</b>	<b>Meniscal Allograft Glenoid Resurfacing in Conjunction with Hemiarthroplasty: 1 to 5 Year Follow-up</b> <i>Michael A. Wirth, MD</i>
1:20-1:25 pm	<b>Revision Surgery for Failed Elbow Medial Collateral Ligament Reconstruction</b> <i>Joshua S. Dines, MD, Lewis A. Yocum, MD, Neal S. ElAttrache, MD, Joshua B. Frank, MD, Ralph Gambardella, MD, Frank W. Jobe, MD</i>	2:40-2:45 pm	
1:25-1:40 pm	<b>Discussion</b>	<b>Paper #31</b>	<b>Autologous Platelet Gel Reduces Pain with Total Shoulder Arthroplasty</b> <i>Douglas P. Zavadil, MPS, CCP, LCP, Charles Craig Satterlee, MD, Jaime M. Costigan, RN, David W. Holt, MA, CCT, Valerie K. Shostrom, MS</i>
1:40-1:45 pm	<b>How-to-Video: Ulnar Collateral Ligament Reconstruction</b> <i>David W. Altchek, MD</i>	2:45-2:50 pm	
1:45-2:25 pm	<b>Symposium: Elbow Ligamentous Injuries</b> <i>Moderator: John E. Conway, MD</i> Panel:	2:50-3:05 pm	<b>Discussion</b>
1:45-1:52 pm	<b>Ligament Anatomy of LUCL and Clinical Characteristics of LUCL Injury versus UCL (lateral vs. medial)</b> <i>Mark S. Cohen, MD</i>	3:05-3:35 pm	<b>Break</b>

**SESSION IX: SHOULDER  
ARTHROPLASTY II – REVERSE**

*Moderator: Andrew Green, MD*

**Paper #32**

3:35-3:40 pm

**Reverse Shoulder Arthroplasty: Indications and Results of the French Multicenter Study**  
*Pascal Boileau, MD, **Ryan T. Bicknell, MD, MSc, FRCSC**, Christopher R. Chuinard, MD, MPH*

**Paper #33**

3:40-3:45 pm

**Results of Reverse Shoulder Arthroplasty in Proximal Humerus Fracture Sequelae**  
*Lionel Neyton, MD, Pascal Garaud, Pascal Boileau, MD, Ryan Bicknell, MD, MSc, FRCSC, Christopher R. Chuinard, MD, MPH*

**Paper #34**

3:45-3:50 pm

**Intraoperative and Early Postoperative Complications of Reverse Total Shoulder Replacement: Experience of One Surgeon**  
*Carl Henry Wierks, MD, Edward McFarland, MD, Richard Skolasky, MA*

3:50-4:00 pm

**Discussion**

4:00-4:05 pm

**How-to-Video: Proper Inferior Glenoid Component Position and Tilt in Reverse Shoulder Arthroplasty**  
*Evan L. Flatow, MD*

4:05-4:45 pm

**Symposium: Reverse Shoulder Arthroplasty: Technical Pearls**  
*Moderator: **Evan L. Flatow, MD***

Panel:

4:05-4:10 pm

**Glenoid: Inferior Positioning from Superior Approach**  
*W.Z. (Buz) Burkhead, Jr., MD*

4:10-4:15 pm

**Glenoid: Inferior Position, Tilt and Bone Graft if necessary from Delto-Pectoral Approach**  
*Gregory P. Nicholson, MD*

4:15-4:23 pm

**Humerus: Proper Version of Humerus and Tension of Soft Tissues; Does Neck-Shaft Angle Matter? Do you Repair the Subscap?**  
*Evan L. Flatow, MD*

4:23-4:31 pm

**Aftercare: Immobilization Time; CTA versus Revision, PT or no PT; What Home Exercises Do You Prescribe?**  
*David N. Collins, MD*

4:31-4:39 pm

**Complications – How to Avoid the Avoidable Complications!**  
*Pascal Boileau, MD*

4:39-4:45 pm

**Discussion**

**SESSION X: INFECTIONS AFTER  
ARTHROPLASTY**

*Moderator: John W. Sperling, MD*

**Paper #35**

4:45-4:50 pm

**Results of Deep Infection after a Reverse Shoulder Arthroplasty**  
*Pascal Boileau, MD, Nicolas Jacquot, MD, Christopher R. Chuinard, MD, MPH, Ryan Bicknell, MD, MSc, FRCSC*

**Paper #36**

4:50-4:55 pm

**Clinical Presentation of Propionibacterium Acnes Infection Following Shoulder Surgery**  
*Yen Yi-Meng, MD, PhD, Marilee P. Horan, BS, James Bennett, BA, Peter J. Millett, MD, MSc*

4:55-5:05 pm

**Discussion**

5:05 pm

**Adjourn**

**DISCLOSURE STATEMENT**

Each participant in the meeting has been asked to disclose if he or she has received something of value (in excess of \$500) 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:

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