

**WOA Scientific Program**  
**Hyatt Regency Monterey, Monterey, CA**  
**July 31 – August 3, 2019**

**Thursday, August 1**

5:45 am – 6:45 am                      **Scientific Poster & E-Poster Sessions**

6:45 am – 6:55 am                      **First Business Meeting**

6:55 am – 7:00 am                      **Welcome, Announcements and Meeting Overview**

*David H. Chafey III, MD, Program Co-Chair*

*David J. Mansfield, MD, Program Co-Chair*

*Omer A. Ilahi, MD, President*

**Symposium 1 – Shoulder/Elbow Surgery**

**Moderator:** Ronald A. Navarro, MD, *Kaiser Permanente*

7:00 am – 7:15 am                      Treatment Options in Proximal Humeral Fractures  
*T. Bradley Edwards, MD, Fondren Orthopedic Group LLP*

7:15 am – 7:30 am                      Clavicle Trauma from Acromion to Sternum  
*Ronald A. Navarro, MD, Kaiser Permanente*

7:30 am – 7:45 am                      Elbow Trauma and the Roles of Radial Head and Total  
Elbow Arthroplasty  
*Mark T. Dillon, MD, Kaiser Permanente Sacramento*

7:45 am – 7:50 am                      Discussion

7:50 am – 8:20am                      **Focused Brunch Presentation – Heron Therapeutics**  
\*CME Credit Not Available

**Rapid Fire Session 1A – Trauma Fixation & Fracture Healing**

**Moderator: TBD**

8:25 am – 8:29 am                      151 - Timing of Fixation and Wound Closure for Open  
Ankle Fractures  
*Marschall Berkes, MD, University of Texas Health Science  
Center at Houston*

8:29 am – 8:33 am                      423 - Patients Benefit from Recording Postoperative  
Instructions after Ankle Fracture Surgery  
*Sam Y. Jiang, BA, Stanford University*

- 8:33 am – 8:37 am 20 - How do Pilon Fractures Heal? An Analysis of Dual Plating, Biomechanically Matched Fixation, and Callus Formation  
*Sean T. Campbell, MD, Stanford University*
- 8:37 am – 8:41 am 359 - Titanium versus Stainless Steel: Clinical Superiority Despite Biomechanical Inferiority  
*Matthew Burnham, BS, University of Arizona College of Medicine - Phoenix*
- 8:41 am – 8:45 am Discussion
- 8:45 am – 8:49 am 257 - Biomechanical Comparison of Bone-Screw-Fasteners Versus Traditional Locked Screws  
*Malcolm DeBaun, MD, Stanford University*
- 8:49 am – 8:53 am 69 - Operative Outcomes in Distal Humerus Fractures With 1-Year Follow Up  
*Philip Locker, MD, University of California, San Francisco*
- 8:53 am – 8:57 am 246 - Tapered Plate Geometry Reduces Stress Shielding in the Humeral Shaft  
*Tennyson L. Block, MD, San Francisco Orthopedic Residency Program, St. Mary's Medical Center*
- 8:57 am – 9:01 am 68 - Factors Predicting Post-Operative Adverse Events In Distal Humerus Fractures  
*Kamran Movassaghi, MD, University of California, San Francisco*
- 9:01 am – 9:05 am Discussion

**Rapid Fire Session 1B – Total Hip**

**Moderator: TBD**

- 8:25 am – 8:29 am 317 - Metal on Metal THA - Pseudotumor with Intermittent Unilateral Vascular Claudication  
*Alex Lencioni, MD, University of Colorado*
- 8:29 am – 8:33 am 442 - Sleep Disturbance in Patients with Femoroacetabular Impingement and Acetabular Dysplasia  
*Nisha Reddy, BA, UT Southwestern Medical Center*

- 8:33 am – 8:37 am 60 - Understanding the Learning Curve - Comparison of First 75 Direct Anterior THAs to Concomitant Established Mini-Posterior THAs  
*Alexander P. Sah, MD, Institute for Joint Restoration*
- 8:37 am – 8:41 am 61 - Implant Size and Outcome Differences in Staged Bilateral THA in 300 Patients  
*Alexander P. Sah, MD, Institute for Joint Restoration*
- 8:41 am – 8:45 am Discussion
- 8:45 am – 8:49 am 62 - Learning Curve for the Direct Superior Approach to Total Hip Arthroplasty  
*Rami M. Ezzibdeh, Stanford University School of Medicine*
- 8:49 am – 8:53 am 161 - Smooth Reamer Impaction Autografting for Total Hip Arthroplasty in the Setting of Acetabular Protrusion  
*Adam A. Sassoon, MD, University of California, Los Angeles*
- 8:53 am – 8:57 am 146 - Entrapped Posteromedial Structures after Spanning External Fixation in Tibial Pilon Fractures  
*Preet Gurusamy, MD, University of California, San Diego*
- 8:57 am – 9:01 am 371 - Government Significantly Reduced Reimbursement for Surgical Hip Fracture Treatment  
*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*
- 9:01 am – 9:05 am Discussion
- Rapid Fire Session 1C – Pediatrics**  
**Moderator: TBD**
- 8:25 am – 8:29 am 159 - Return To Sport After Posterior Spinal Fusion for Idiopathic Scoliosis  
*Allison Tetreault, MD, University of Colorado*
- 8:29 am – 8:33 am 210 - Skeletal Age Assessment by Calcaneal Apophyseal Stage in Cerebral Palsy  
*Donald T. Kephart, MD, University of California, Davis Medical Center*
- 8:33 am – 8:37 am 416 - AAOS Appropriate Use Criteria: Management of Supracondylar Humerus Fractures at a Level I Trauma Center

*Diana G. Douleh, MD, University of Colorado*

- 8:37 am – 8:41 am 448 - Measuring the Acetabular Index; An Accurate and Reliable Alternative Method of Measurement  
*Benjamin J. Sherman, DO, Children's Hospital of Orange County*
- 8:41 am – 8:45 am Discussion
- 8:45 am – 8:49 am 410 - Mini C-Arm Versus Portable Radiograph: Radiation Exposures with Closed Reduction in the ED  
*Eli Ahdoot, DO, Children's Hospital of Orange County*
- 8:49 am – 8:53 am 191 - Does Univalve Location Differentially Effect Pressures at the Three-Point Mold?  
*Blake K. Montgomery, MD, Stanford University*
- 8:53 am – 8:57 am 338 - Distinguishing Septic Arthritis from Aseptic Effusion in Pediatric Irritable Knee  
*Claudia S. Thomas, MD, University of Washington*
- 8:57 am – 9:01 am 270 - Incidence of Coxa Profunda & Other Signs of FAI in Adolescents with DDH  
*Tyler R. Freeman, MD, University of Colorado*
- 9:01 am – 9:05 am Discussion

**Rapid Fire Session 1D – Hand & Wrist**

**Moderator: TBD**

- 8:25 am – 8:29 am 241 - Application of Cryotherapy to Casts Reduces Skin Surface Temperature  
*Neal Goldenberg, MD, San Francisco Orthopedic Residency Program, St. Mary's Medical Center*
- 8:29 am – 8:33 am 37 - Distal Ulna Morphology – Estimating the Prevalence of Reverse Obliquity  
*Blake Schultz, MD, Stanford University*
- 8:33 am – 8:37 am 330 - Time to Case Closure of Occupational Hand Injuries  
*Aaron Gray, MD, University of Nevada Las Vegas School of Medicine*
- 8:37 am – 8:41 am 23 - Ethnicity-Related Prevalence of Obesity in Children With Distal Radius Fractures Compared With National Values

*Jessica Avila, BS, Texas Tech University Health Science Center*

8:41 am – 8:45 am

Discussion

8:45 am – 8:49 am

72 - Radiographic outcomes of Dorsal Spanning Plate for Treatment of Comminuted Distal Radius Fractures  
*Behnam Sharareh, MD, Baylor College of Medicine*

8:49 am – 8:53 am

78 - Wide-Awake Hand Surgery Associated with Decreased Opioid Use and Morbidity  
*Gopal R. Lalchandani, MD, University of California, San Francisco*

8:53 am – 8:57 am

344 - Patient Outcomes and Costs after Isolated Flexor Tendon Repair  
*Gopal R. Lalchandani, MD, University of California, San Francisco*

8:57 am – 9:01 am

63 - Biomechanical Comparison of Flexor Digitorum Profundus Avulsion Repair  
*Jill G. Putnam, University of Arizona College of Medicine-Phoenix*

9:01 am – 9:05 am

Discussion

**Rapid Fire Session 1E – Basic Science**

**Moderator: TBD**

8:25 am – 8:29 am

99 - Do Pre-Operative Transcutaneous Oxygen Perfusion Measurements Predict Atraumatic Amputation Wound Healing?  
*Naudereh Noori, MD, Cedars Sinai Medical Center*

8:29 am – 8:33 am

74 - Multimodal Imaging Guides Surgical Management in Preclinical Spinal Implant Infection  
*Stephen Zoller, MD, University of California, Los Angeles*

8:33 am – 8:37 am

119 - Lateral Femoral Cortical Thickness Correlates to Femoral Bone Mineral Density  
*Musa Zaid, MD, University of California San Francisco*

8:37 am – 8:41 am

221 - Zoledronic Acid Decreases Infection in Mouse Spine Implant Infection Model  
*Chad Ishmael, MD, University of California, Los Angeles*

8:41 am – 8:45 am	Discussion
8:45 am – 8:49 am	300 - Ex-Vivo Human Chondrocyte Toxicity After Exposure to Tranexamic Acid <i>Erika L. Garbrecht, MD, University of New Mexico</i>
8:49 am – 8:53 am	283 - Adipose-Derived Stem Cell Quantity in Infrapatellar Fat Versus Subcutaneous Lipoaspirate <i>Hyunwoo P. Kang, MD, University of Southern California</i>
8:53 am – 8:57 am	136 - Can Drilling Energy Predict Bone Mineral Density and Screw Pullout Strength in Cadaveric Bone? <i>Michael J. Chen, MD, Stanford Orthopaedic</i>
8:57 am – 9:01 am	279 - Pre-Operative Use of a Chlorohexidine-Impregnated Sponge Reduces Skin Soil Contamination <i>Byron H. Izuka, MD, Childrens Orthopaedics of Hawaii</i>
9:01 am – 9:05 am	Discussion
9:05 am – 9:25 am	<i>Break – Please visit Exhibits</i>

### **General Session 1 – Howard Steel Lecture**

**Moderator:** Omer A. Ilahi, MD, *Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute*

9:25 am – 9:30 am	Tribute to Howard Steel <i>Theodore L. Stringer, MD, Colorado Springs Orthopaedic Group</i>
9:30 am – 9:35 am	Introduction of Howard Steel Lecture <i>Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy &amp; Sports Medicine Institute</i>
9:35 am – 10:20 am	Howard Steel Lecture Crossing Barriers: Lessons from the Past on How to Overcome What Divides Us Today <i>Paul Moses, New York, NY</i>
10:20 am – 10:40 am	<i>Break – Please visit Exhibits</i>

### **Symposium 2 – Sports Medicine**

**Moderator:** David J. Mansfield, MD, *El Paso Orthopaedic Surgery Group*

10:40 am – 10:55 am	Anterolateral Complex of the Knee - Understanding the Evidence and Recent Trends
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*Andrew G. Geeslin, MD, Western Michigan University*

10:55 am – 11:10 am      Pediatric, Adolescent ACL - Differences in Technique, Graft, and Augmentation to Avoid Complications in the Highest ACL Failure Risk Group  
*Kevin G. Shea, MD, Stanford Children's Clinic*

11:10 am – 11:25 am      Is the Clock Face Analogy Truly of no Benefit for Femoral Tunnel Placement During ACL Reconstruction? Is there a Better Analogy?  
*Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute*

11:25 am – 11:30 am      Discussion

11:30 am – 12:00 pm      **Focused Lunch Presentation – TBD**  
\*CME Credit Not Available

**General Session 2 – OREF Update & WOF/OREF Young Investigator Awards**

**Moderators:** David H. Chafey III, MD, *University of New Mexico*  
David J. Mansfield, MD, *El Paso Orthopaedic Surgery Group*

12:00 pm – 12:05 pm      OREF Update

12:05 pm – 12:13 pm      101 - Implementing a Geriatric Fracture Program in a Pluralistic Environment  
*Carol Lin, MD, MA, Cedars-Sinai Medical Center*

12:13 pm – 12:21 pm      133 - Mean 10-Year Survivorship, Patient-Reported Outcomes and Satisfaction of a Fixed-Bearing Unicompartmental Knee Arthroplasty  
*Ryland Kagan, MD, Oregon Health & Science University*

12:21 pm – 12:29 pm      434 - Females and Long Spinal Fusions Result in Total Hip Arthroplasty  
*Zachary C. Lum, DO, University of California: Davis Medical Center*

12:29 pm – 12:35 pm      Discussion

**Concurrent Allied Health Session 1**

**Moderator:** Theodore W. Coates, PA-C, *University of California, Davis*

12:40 pm – 1:40 pm      Long Bone Fracture Management of the Lower Extremity  
*Ellen P. Fitzpatrick, MD, UC Davis Health*

**Rapid Fire Session 2A – Trauma Tibia**

**Moderator: TBD**

- 12:40 pm - 12:44 pm                      274 - Soft Tissue Management in Open Tibial Shaft Fractures: A Comparison of Institutional Protocols  
*Matthew R. Garner, MD, University of Texas Health Science Center at Houston*
- 12:44 pm - 12:48 pm                      426 - Use of Balloon Osteoplasty for Reduction of Tibial Plateau Fractures  
*Stephanie Logterman, MD, Denver Health Medical Center*
- 12:48 pm - 12:52 pm                      179 - A Review of 11,000 Open Tibia Fractures over Four Decades  
*Stephen Warner, MD, PhD, University of Texas Health Science Center at Houston*
- 12:52 pm - 12:56 pm                      126 - Defining the Intramedullary Axis of the Distal Tibia using Computed Tomography  
*Haydn Roberts, MD, Banner University Medical Center*
- 12:56 pm - 1:00 pm                      261 - Predicting Reoperation and Quality of Life after Open Tibia Fractures  
*Patrick Albright, BS, MS, University of California-San Francisco*
- 1:00 pm - 1:04 pm                      150 - Quantification of Volumetric Articular Depression in Lateral Split/Depressed Tibial Plateau Fractures  
*Heba Ahmad, BS, University of Texas Health Science Center at Houston*
- 1:04 pm - 1:10 pm                      Discussion
- 1:10 pm - 1:14 pm                      275 - The OTA-OFC as a Predictive Outcome Tool in Open Tibia Fractures  
*Matthew R. Garner, MD, University of Texas Health Science Center at Houston*
- 1:14 pm - 1:18 pm                      276 - Comparison of Outcomes Following Open versus Closed Patella Fractures  
*Jie Yao, MD, University of Washington*
- 1:18 pm - 1:22 pm                      452 - Mesh Plate as a Fixation Method for Patellar Fractures: A Report of 9 Cases  
*Ahmed Thabet, MD, Texas Tech University Health Sciences Center*



1:22 pm - 1:26 pm 229 - Lower Extremity CT Angiograms and Nephropathy in Orthopedic Trauma Patients  
*Elise Britt, MD, University of California, San Diego Health*

1:26 pm - 1:30 pm 202 - Inadequate Soft-Tissue Coverage Following Open Tibia Fractures in Tanzania  
*Jordan T. Holler, BS, University of California-San Francisco*

1:30 pm - 1:34 pm 227 - Treatment of Tibial Plateau Fractures with a Novel Fenestrated Screw  
*Alexander Telis, MD, University of Southern California*

1:34 pm - 1:40 pm Discussion

**Rapid Fire Session 2B – Total Joint  
Moderator: TBD**

12:40 pm - 12:44 pm 355 - Toxic Noise Levels During Total Joint Arthroplasty Surgery  
*Brandon A. Romero, MD, University of Nevada Las Vegas*

12:44 pm - 12:48 pm 19 - Sources Of Contamination in the Operating Room: A Fluorescent Particle Powder Study  
*Holt Cutler, MD, University of Texas Southwestern Medical Center*

12:48 pm - 12:52 pm 22 - Complications of Total Joint Arthroplasty in Liver Disease Patients  
*Eric G. Kim, MD, University of California, Davis*

12:52 pm - 12:56 pm 50 - Immunologic Status Does Not Predict the Risk of Periprosthetic Infection in Patients Infected with Human Immunodeficiency Virus Undergoing Total Hip Arthroplasty  
*Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center*

12:56 pm - 1:00 pm 52 - Evolution of 2 Stage to 1 Stage Treatment of PJI: the First 500 Cases  
*Gerhard E. Maale III, MD, Dallas Ft. Worth Sarcoma Group/Medical City Plano*

1:00 pm - 1:04 pm 396 - Cannabis Use Among Patients Undergoing Total Joint Arthroplasty Has Increased  
*Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery*

1:04 pm - 1:10 pm	Discussion
1:10 pm - 1:14 pm	341 - Intrawound Vancomycin in Total Hip and Increased Intraoperative Imaging Does Not Correlate with Better Functional Outcomes in Tibial Plateau Fractures <i>Nathanael D. Heckmann, MD, Keck School of Medicine of the University of Southern California</i>
1:14 pm - 1:18 pm	87 - Staged Bilateral Total Shoulder Arthroplasty: A Systematic Review of Clinical Outcomes <i>John-Rudolph Smith, BS, University of Colorado Sports Medicine</i>
1:18 pm - 1:22 pm	249 - Quantifying Patient Encounters in Arthroplasty During the Global Period <i>Malcolm DeBaun, MD, Stanford University Department of Orthopaedic Surgery</i>
1:22 pm - 1:26 pm	323 - A Qualitative Comparison of Shoulder Arthroplasty to Lower Extremity Arthroplasty <i>Alexandra Schumacher, MS, University of Colorado Sports Medicine</i>
1:26 pm - 1:30 pm	325 - A Qualitative Comparison on the Effect of Arthroplasty Operation Order <i>Alexandra Schumacher, MS, University of Colorado Sports Medicine</i>
1:30 pm - 1:34 pm	379 - Meeting Patient Expectations after TJA: Do We Live Up to the Hype? <i>Adam A. Sassoon, MD, University of California, Los Angeles</i>
1:34 pm - 1:40 pm	Discussion

### **Rapid Fire Session 2C – Sports Medicine**

**Moderator: TBD**

12:40 pm - 12:44 pm	188 - Resident Involvement in Sports Medicine Surgeries <i>Kent C. Doan, MD, University of Colorado</i>
12:44 pm - 12:48 pm	322 - Comparative Effectiveness of Treatment Options for Displaced Midshaft Clavicle Fractures: A Systematic Review and Network Meta-Analysis <i>John R. Martin, MD, University of Arizona - Phoenix</i>

12:48 pm - 12:52 pm 339 -Playing Surface Effects Anterior Cruciate Ligament Injury In NCAA Soccer  
*Samantha Solaru, BS, University of Southern California*

12:52 pm - 12:56 pm 352 - Direct and Indirect Savings with use Of In-Office Diagnostic Arthroscopy  
*Omar Ramos, MD, Loma Linda University Medical Center*

12:56 pm - 1:00 pm 9 - Orthopaedic Sleep and Novel Analgesic Pathway for Shoulder Arthroplasty Recovery  
*Jonathan Cheah, MD, University of California-San Francisco*

1:00 pm - 1:04 pm 147 - All Soft-Tissue Quadriceps Graft for Anterior Cruciate Ligament Reconstruction  
*Mitchell Stroh, DO, Hoag Orthopedic Institute*

1:04 pm - 1:10 pm Discussion

1:10 pm - 1:14 pm 286 - Hypovitaminosis D is Not a Risk Factor for Stress Fracture in NCAA Division I Track and Field  
*Adam Lindsay, MD, University of Southern California*

1:14 pm - 1:18 pm 290 - A Comparison of Collegiate Women's Court and Beach Volleyball Injury Data: A Three Year Retrospective Analysis  
*Tristan Juhan, MD, MA, University of Southern California*

1:18 pm - 1:22 pm 313 - Injections and Ultrasound Imaging in Orthopedics: Medicare Trends in Reimbursement from 2000-2019  
*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*

1:22 pm - 1:26 pm 186 - Surfing Injuries - A Review For The Orthopaedic Surgeon  
*Ryan J. Bickley, MD, Tripler Army Medical Center*

1:26 pm - 1:30 pm 231 - Assessment of Cartilage Growth After Biopsy of Osteochondral Loose Bodies  
*Sean Robinson, MD, St. Mary's Medical Center*

1:30 pm - 1:34 pm 234 - When is a Hill-Sachs Lesion Too Large for Remplissage? The Relationship Between Humeral Head Size and Infraspinatus Tendon Length  
*Thomas Kremen, MD, David Geffen School of Medicine at UCLA*

1:34 pm - 1:40 pm Discussion

**Rapid Fire Session 2D – Shoulder & Elbow**

**Moderator: TBD**

- 12:40 pm - 12:44 pm 391 - The Effect of Tranexamic Acid on Early Postoperative Pain and Opiate Consumption After Total Shoulder Arthroplasty  
*Pengcheng Wang, UCLA Medical Center Program*
- 12:44 pm - 12:48 pm 148 - Outcomes after Shoulder Surgery: Legacy Score versus PROMIS Function Score  
*Todd S. Kim, MD, Palo Alto Medical Foundation*
- 12:48 pm - 12:52 pm 390 - Low BMI Predicts Inferior Outcomes After Reverse Total Shoulder Arthroplasty  
*Edward J. Wu, MD, Stanford University Department of Orthopaedic Surgery*
- 12:52 pm - 12:56 pm 408 - Analysis of 164 Patients with Unsatisfactory Results after Failed Rotator Cuff Repair  
*Sagar S. Chawla, MD, University of Washington*
- 12:56 pm - 1:00 pm 450 - Radial Neck Diameter as a Guide for Prosthetic Stem Sizing  
*Dave Shukla, MD, Mayo Clinic*
- 1:00 pm - 1:04 pm 327 - Preoperative Corticosteroid Injections are Associated with Shoulder Arthroscopy Infectious Outcomes  
*Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago*
- 1:04 pm - 1:10 pm Discussion
- 1:10 pm - 1:14 pm 421 - Radiographic Changes In The Acromiohumeral Distance Through The Sagittal Plane  
*Craig T. Gillis, DO, Buffalo, NY*
- 1:14 pm - 1:18 pm 357 - Effects of Age on Postoperative Complications Following Shoulder Arthroplasty  
*Hasani W. Swindell, MD, University of Southern California*
- 1:18 pm - 1:22 pm 124 - Biomechanical Assessment of Patella Tendon Allograft as Alternative Graft Material for Superior Capsule Reconstruction

*William Croom, MD, MBA, Kaiser Permanente*

1:22 pm - 1:26 pm

137 - Stemless Shoulder Arthroplasty: Review of Short and Medium-term Results

*Nicholas P. Satariano, MD, University of California, San Francisco*

1:26 pm - 1:30 pm

311 - Clinical Results of Subpectoral Biceps Tenodesis using a Single Unicortical Anchor

*Taylor D. Mansfield, MD, Madigan Army Medical Center*

1:30 pm - 1:34 pm

331 - Sleep Quality Following Rotator Cuff Repair: A Systematic Review

*Andres F. Barandiaran, University of Colorado*

1:34 pm - 1:40 pm

Discussion

**Rapid Fire Session 2E – Spine**

**Moderator: TBD**

12:40 pm - 12:44 pm

454 - Costs and Utility of Post-Discharge Rehabilitation Following Spinal Deformity Surgery

*Alexander A. Theologis, MD, University of California, San Franci*

12:44 pm - 12:48 pm

256 - ALIF Provides More Decompression of the Foraminal Space Than Foraminotomy

*Khalid Odeh, MD, St. Mary's Medical Center, San Francisco*

12:48 pm - 12:52 pm

346 - Decreased MicroRNA-29a is Associated with Ligamentum Flavum Hypertrophy

*Richard Wawrose, MD, UPMC*

12:52 pm - 12:56 pm

449 - Thoracoplasty Effects on Post-Operative Recovery in Adolescent Idiopathic Scoliosis

*Benjamin J. Sherman, DO, Children's Hospital of Orange County*

12:56 pm - 1:00 pm

315 - An Analysis of Medicare Reimbursement Rates in Spine Surgery: 2000-2018

*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*

1:00 pm - 1:04 pm

342 - Fenestrated Pedicle Screw Cement Augmentation: A Safety and Efficacy Study

*Ruwan Ratnayake, MD, University of California, Davis  
Medical Center*

1:04 pm - 1:10 pm

Discussion

1:10 pm - 1:14 pm

174 - The Utility of Flexion/Extension Radiographs in  
Degenerative Cervical Spondylolisthesis  
*Andrew P. Alvarez, MD, University of California, Irvine*

1:14 pm - 1:18 pm

306 - Inpatient Episodes of Care in Spine Surgery:  
Medicare Reimbursement Rates  
*Jordan Dutcher, Mayo Clinic School of Medicine*

1:18 pm - 1:22 pm

397 - Dissimilar Rod-Screw Metal Constructs Do Not  
Affect Complications in Deformity Surgery  
*Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery*

1:22 pm - 1:26 pm

104 - Initial Management of Sacral Insufficiency Fractures:  
A Systematic Review  
*Pierce Johnson, MD, University of Arizona Phoenix*

1:26 pm - 1:30 pm

73 - Preoperative Hemoglobin: A Predictor for  
Mobilization and Length of Stay  
*Ali Noorzad, MD, Cedars-Sinai Medical Center*

1:30 pm - 1:34 pm

172 - Defining the Association between Sacral  
Dysmorphism and Hip Dysplasia  
*Elizabeth Gausden, MD, University of Texas Health  
Science Center at Houston*

1:34 pm - 1:40 pm

Discussion

1:40 pm – 2:40 pm

**Scientific Poster & E-Poster Sessions**

2:40 pm – 3:40 pm

**Multimedia Education Session**

## **Friday, August 2**

5:45 am – 6:55 am

**Scientific Poster & E-Poster Sessions**

6:55 am – 7:00 am

**Announcements**

*David H. Chafey III, MD, Program Co-Chair  
David J. Mansfield, MD, Program Co-Chair*

**Symposium 3 – Tumor**

**Moderator:** David H. Chafey III, MD, *University of New Mexico*

- 7:00 am – 7:15 am Tips and Tricks for Managing Soft Tissue Masses  
*Kristy L. Weber, MD, University of Pennsylvania*
- 7:15 am – 7:30 am The Lytic Lesion of Bone in Adults  
*Valerae O. Lewis, MD, MD Anderson Cancer Center*
- 7:30 am – 7:45 am Pediatric Bone Cysts: Know your ABCs and UBCs  
*Nicole I. Montgomery, MD, Texas Children's Hospital*
- 7:45 am – 7:50 am Discussion
- 7:50 am – 8:20 am **Focused Brunch Presentation – Convatec**  
\*CME Credit Not Available
- 8:20 am – 8:40 am *Break – Please visit Exhibits*

**Rapid Fire Session 3A – Trauma Traffic & Thrombosis**

**Moderator: TBD**

- 8:40 am - 8:44 am 114 - Comparison of Injuries Among Motorcycle, Moped, and Bicycle Traffic Accident Victims  
*Tyler Kent, MD, University of Nevada Las Vegas*
- 8:44 am - 8:48 am 250 - Electric Scooter Orthopaedic Injuries at a Level 1 Trauma Center  
*Ophelie Lavoie-Gagne, University of California, San Diego*
- 8:48 am - 8:52 am 252 - Electric Scooter Orthopaedic Injuries Have Significant Financial Implications  
*Matthew Y. Siow, MD, University of California, San Diego*
- 8:52 am - 8:56 am 281 - Electric Scooters: A New Wave in Orthopaedic Trauma  
*Ali Noorzad, MD, Cedars-Sinai Medical Center*
- 8:56 am - 9:00 am Discussion
- 9:00 am - 9:04 am 367 - An Analysis of Medicare Reimbursement Rates in Orthopaedic Trauma: 2000-2018  
*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*
- 9:04 am - 9:08 am 447 - What Makes a Strong Orthopaedic Trauma Fellowship Application: A Program Director's Perspective

*Kareem Shaath, MD, University of Texas Health Science Center*

9:08 am - 9:12 am

199 - Targeted Dosing of LMWH Does Not Reduce Thrombosis in Orthopaedic Trauma  
*Carol Lin, MD, MA, Cedars-Sinai Medical Center*

9:12 am - 9:16 am

208 - The Incidence of DVT in Orthopedic Trauma  
*Hyunwoo P. Kang, MD, University of Southern California*

9:16 am - 9:20 am

Discussion

**Rapid Fire Session 3B – Sports Medicine**

**Moderator: TBD**

8:40 am - 8:44 am

383 - Sliding or Non-Sliding Arthroscopic Knots for Shoulder Procedures: A Systematic Review of Clinical Outcomes  
*Caellagh D. Morrissey, BA, University of Colorado Sports Medicine*

8:44 am - 8:48 am

141 - All-Inside Repair of Bucket-Handle Meniscus Tears: A Systematic Review  
*Carolyn Ardizzone, University of Colorado Sports Medicine*

8:48 am - 8:52 am

318 - Anterior Cruciate Ligament Reconstruction Outcomes in Skiers Compared to Non-Skiers  
*Alexandra Schumacher, MS, University of Colorado Sports Medicine*

8:52 am - 8:56 am

125 - Bone Graft Options for Tunnel Augmentation in Revision ACL Reconstruction  
*Hytham S. Salem, MD, University of Colorado, Denver*

8:56 am - 9:00 am

Discussion

9:00 am - 9:04 am

144 - Natural History of Subacromial Shoulder Pain: Analysis of 474 Cases  
*John H. Thayer, MBS, University of Washington School of Medicine*

9:04 am - 9:08 am

173 - Radiographic Assessment of Femoral Tunnel Ossification in ACL Reconstruction  
*Ali A. Qadeer, MD, Baylor College of Medicine*



9:08 am - 9:12 am 84 - Preoperative Determination of Adequate Graft Diameter for Hamstring ACL Reconstruction  
*Trevor J. Shelton, MD, University of California, Davis*

9:12 am - 9:16 am 458 - Surgical Trends in Meniscal Tears: Analysis of ABOS Certification Data.  
*Jory Wasserburger, MD, Albuquerque, NM*

9:16 am - 9:20 am Discussion

### **Rapid Fire Session 3C – Shoulder & Elbow**

**Moderator: TBD**

8:40 am - 8:44 am 25 - Cutibacterium Acnes Cultures are Rarely Positive in Shoulders Undergoing Primary Arthroplasty  
*Dave Shukla, MD, Mayo Clinic*

8:44 am - 8:48 am 192 - Comparison of MRI Utilization: Diagnosis and Treatment of the Elbow  
*Brett A. Schiffman, MD, University of Washington*

8:48 am - 8:52 am 307 - Analysis of Glenohumeral Joint Intraarticular Pressure Measurements in Volume-Limited MR Arthrograms in Patients with Shoulder Instability compared to a Control Group  
*Zachary L. McBeth, MD, Madigan Army Medical Center*

8:52 am - 8:56 am 332 - The Relationship between “Grit” and Clinical Outcomes Following Rotator-Cuff Repair  
*Andres F. Barandiaran, University of Colorado*

8:56 am - 9:00 am Discussion

9:00 am - 9:04 am 27 - Trends in Peripheral Nerve Blocks in Arthroscopic Rotator Cuff Repairs  
*Abhinav K. Sharma, BS, David Geffen School of Medicine at UCLA*

9:04 am - 9:08 am 53 - Sex-Based Review of Recurrence Rates Following Arthroscopic Anterior Shoulder Stabilization  
*Connor Cannizzaro, University of Colorado Sports Medicine*

9:08 am - 9:12 am 129 - Anterior Capsule Reconstruction versus Pectoralis Major Transfer for Irreparable Subscapularis Tears

*Gregory Adamson, Orthopaedic Biomechanics Laboratory,  
Congress Medical Foundation*

9:12 am - 9:16 am                      77 - The Effect of Hook Plate with Augmented Fixation on High Energy Shoulder Girdle Injuries  
*Wesley Doshier, MD, University of Texas Health Science Center At Houston*

9:16 am - 9:20 am                      Discussion

**Rapid Fire Session 3D – Foot & Ankle**

**Moderator: TBD**

8:40 am - 8:44 am                      28 - Lesser Metatarsophalangeal Interpositional Arthroplasty with Semitendinosus Allograft: Outcomes and Technique  
*Eugene F. Stautberg III, MD, Southwest Orthopedic Group*

8:44 am - 8:48 am                      43 - Ligamentous Lisfranc: Biomechanical Properties of Internal Brace, Suture Button, and Screw  
*Trevor J. Shelton, MD, University of California, Davis*

8:48 am - 8:52 am                      220 - Contemporary Comparison of Short-Term Outcomes after Total Ankle Replacement and Ankle Arthrodesis  
*Stephen B. Wallace, MD, University of Texas Southwestern*

8:52 am - 8:56 am                      167 - Patient-Reported Outcomes after use of Dynamic Bracing in the Civilian Population  
*Ryan Hadden, MD, Oregon Health and Science University*

8:56 am - 9:00 am                      Discussion

9:00 am - 9:04 am                      235 - Outcomes and Complications of Supination-Adduction (AO/OTA 44A2.3) Ankle Fractures  
*Ram K. Alluri, MD, Keck Medical Center of USC*

9:04 am - 9:08 am                      443 - Sural Fasciocutaneous Flaps for Ortho-Geriatric Patients  
*Haydn Roberts, MD, Banner University Medical Center*

9:08 am - 9:12 am                      178 - Tricortical Kirschner Wire vs Screw Fixation for Distal Chevron Osteotomy  
*Natalie R. Black, BS, University of Texas Medical Branch at Galveston*

9:12 am - 9:16 am 181 - Provisional Reduction and Percutaneous Pinning of Traumatic Foot Injuries  
*Justin A. Rennard, MD, University of Texas Health Science Center at Houston*

9:16 am - 9:20 am Discussion

**Rapid Fire Session 3E – Pharmacology: The Good, Bad and the Opioids**  
**Moderator: TBD**

8:40 am - 8:44 am 122 - Human Skeletal Stem Cells from Acute Fractures Maintain Self-Renewal and Differentiation Independent of Non-Steroidal Anti-Inflammatory Drugs (NSAID)  
*Lawrence H. Goodnough, MD, Stanford University*

8:44 am - 8:48 am 200 - Acute Post-Operative Multimodal Pain Management and Long-Term Opioid Use  
*Carol Lin, MD, MA, Cedars-Sinai Medical Center*

8:48 am - 8:52 am 97 - Standardized Pain Regimen in Orthopedic Trauma Patients Reduces Opioid Use  
*Carol Lin, MD, MA, Cedars-Sinai Medical Center*

8:52 am - 8:56 am 226 - Outcomes and Complications Among Methamphetamine Users in Orthopaedic Trauma  
*Nicholas A. Trasolini, MD, University of Southern California*

8:56 am - 9:00 am Discussion

9:00 am - 9:04 am 190 - High Variability in Opioid Prescribing Following Fracture Fixation  
*Andrew Fithian, MD, Stanford University*

9:04 am - 9:08 am 224 - Methamphetamine Use and Post-operative Narcotic Use in Orthopedic Trauma Patients  
*Adam Lindsay, MD, University of Southern California*

9:08 am - 9:12 am 258 - Perioperative Complication Rates Amongst Methamphetamine Positive Orthopaedic Trauma Patients  
*Malcolm DeBaun, MD, Stanford University*

9:12 am - 9:16 am 207 - Complication Rates and Reimbursements in Hip Fracture Patients Using DMARDs  
*Mary Kate Erdman, MD, University of Southern California*

9:16 am - 9:20 am Discussion

**General Session 3 – AAOS Report & Presidential Guest Speaker**

**Moderator:** Omer A. Ilahi, MD, *Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute*

9:25 am – 9:40 am AAOS Report  
*Kristy L. Weber, MD, President, AAOS, University of Pennsylvania*

9:40 am – 9:45 am Introduction of Presidential Guest Speaker  
*Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute*

9:45 am – 10:25 am Presidential Guest Speaker  
The Burden of Craft and the Blessing of Craftsmanship  
*Stephen S. Burkhart, MD, The San Antonio Orthopaedic Group*

10:25 am – 10:45 am Break – Please visit Exhibits

**Symposium 4 – Hip/Knee**

**Moderator:** Parminder S. Kang, MD, *Desert Orthopaedic Center*

10:45 am – 11:00 am Management of Peri-Prosthetic Fractures of the Femur:  
Don't Gamble on the Stem  
*Parminder S. Kang, MD, Desert Orthopaedic Center*

11:00 am – 11:15 am Diagnosis and Treatment of Total Joint Infections  
*Michael D. Ries, MD, Reno Orthopedic Clinic*

11:15 am – 11:30 am The Painful Knee after Arthroplasty: Prevention and  
Approach  
*Russell T. Nevins, MD, Nevada Orthopaedic & Spine Center*

11:30 am – 11:35 am Discussion

11:35 am – 12:05 pm **Focused Lunch Presentation – Flexion Therapeutics**  
\*CME Credit Not Available

**General Session 4 – WOF Report & Western Orthopaedic Foundation Donor Awards**

**Moderator:** Robert R. Slater, Jr., MD, *Folsom, CA*

12:05 pm – 12:15 pm WOF Report

- 12:15 pm – 12:21 pm      **Basil R. Besh, MD Donor Award**  
419 - High Resiliency Improves Patient Reported Outcomes Following Knee Surgery in Active-Duty Patients  
*Nicholas J. Drayer, MD, Madigan Army Medical Center*
- 12:21 pm – 12:27 pm      **Nitin N. Bhatia, MD Donor Award**  
373 - Two-Week Postoperative Radiographs After Ankle ORIF Have Low Utility  
*Hyunwoo P. Kang, MD, University of Southern California*
- 12:27 pm – 12:33 pm      **David H. Chafey III, MD Donor Award**  
157 - Infraspinatus Tenotomy Improves Glenoid Visualization with the Modified Judet Approach  
*John Garlich, MD, Cedars-Sinai Orthopaedic Surgery*
- 12:33 pm – 12:39 pm      **Omer A. Ilahi, MD Donor Award**  
381 - Supporting Orthopedic Resident Education and Advancement in Leadership Skills  
*Jonathan Cheah, MD, University of California-San Francisco*
- 12:39 pm – 12:45 pm      **Brian A. Jewett, MD Donor Award**  
309 - Overprescribing of Opioids in Orthopaedic Surgery  
*Taylor D. Mansfield, MD, Madigan Army Medical Center*
- 12:45 pm – 12:51 pm      **Jeffrey E. Krygier, MD Donor Award**  
403 - Newer NCAA Bat Standard is Associated with Hamate Fractures  
*Trevor J. Shelton, MD, University of California, Davis*
- 12:51 pm – 12:57 pm      **Jeffrey M. Nakano, MD Donor Award**  
166 - Current Trends: Surgical Treatment of Syndesmotic Injuries in Elite Athletes  
*Rebecca Griffith, MD, University of Colorado Denver School of Medicine*
- 12:57 pm – 1:03 pm      **Robert R. Slater Jr., MD Donor Award**  
407 - Improved Fracture Reduction in Patients Undergoing Early Definitive Fixation for Tibial Plateau Fractures with Acute Compartment Syndrome  
*Tony Pedri, MD, Regions Trauma Center*
- 1:03 pm – 1:10 pm      Discussion

**Concurrent Allied Health Session 2**

**Moderator:** Theodore W. Coates, PA-C, *University of California, Davis*

1:15 pm – 2:15 pm

Spine

*Adam M. Wegner, MD, Washington University, St. Louis*

**Rapid Fire Session 4A – Trauma Pelvis & Acetabulum**

**Moderator:** TBD

1:15 pm - 1:19 pm

216 - Expert Agreement on the Outcome of Pelvic Exam Under Anesthesia

*Geoffrey S. Marecek, MD, University of Southern California*

1:19 pm - 1:23 pm

143 - Visualizing Anterior Pelvis Bone Strength to Optimize Screw Fixation

*Jerad D. Allen, MD, Harborview Medical Center*

1:23 pm - 1:27 pm

145 - Novel Method to Visualize Pelvic Bone Strength for Surgical Planning

*Jerad D. Allen, MD, Harborview Medical Center*

1:27 pm - 1:31 pm

294 - Evaluation of Functional and Psychological Outcomes in Patients with Severe Pelvic Ring Fractures

*Murphy P. Martin, MD, Denver Health Medical Center*

1:31 pm - 1:35 pm

297 - Occult Injuries of the Contralateral SI Joint in Operatively Treated Pelvis Fractures: Incidence

*Andrew S. Maertens, MD, University of Colorado*

1:35 pm - 1:39 pm

292 - Complications Associated with Early Versus Delayed Fixation of Pelvic Ring Injuries

*David Rojas, MD, Denver Health Medical Center*

1:39 pm - 1:45 pm

Discussion

1:45 pm - 1:49 pm

55 - Posterior Pelvic Ring Bone Density: Implications for Third Sacral Segment

*Jonathan G. Eastman, MD, University of California, Davis*

1:49 pm - 1:53 pm

204 - A Biomechanical Study Comparing Compressive Strength of Fully Threaded versus Partially Threaded Cannulated Transiliac-Transsacral Lag Screws for Posterior Pelvic Ring Stabilization.

*Andrew S. Maertens, MD, University of Colorado*

- 1:53 pm - 1:57 pm 237 - Obesity is not a Risk Factor for Complications Following Acetabular Fracture Surgery: A Comparative Cohort Study  
*Kareem Shaath, MD, University of Texas Health Science Center*
- 1:57 pm - 2:01 pm 219 - Low Dose CT for Assessment of Acetabular Fracture Reduction  
*Stephen Gibbs, MD, University of Southern California*
- 2:01 pm - 2:05 pm 94 - The Hybrid Suite and Intraileiac Balloon Occlusion for Acetabular Open Reduction Internal Fixation  
*Jason Davis, MD, University of California, San Francisco*
- 2:05 pm - 2:09 pm 404 - Financial Impact of the ACA on an Orthopedic Trauma Service  
*Trevor J. Shelton, MD, University of California, Davis*
- 2:09 pm - 2:15 pm Discussion

**Rapid Fire Session 4B – Tumor and Pediatrics**

**Moderator:** TBD

- 1:15 pm - 1:19 pm 264 - CD44 and ALDH1 Predict Oncologic Outcomes in Osteosarcoma  
*Augustine M. Saiz Jr., MD, University of California, Davis*
- 1:19 pm - 1:23 pm 160 - Natural History of Enchondroma Referrals at a Comprehensive Cancer Center  
*Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center*
- 1:23 pm - 1:27 pm 163 - Acrometastasis: Is Lung Carcinoma Still the Most Common Primary Lesion?  
*Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center*
- 1:27 pm - 1:31 pm 362 - Patellar Tendon Augmentation Not Necessary in Proximal Tibia Endoprosthetic Reconstruction  
*Russell Stitzlein, MD, University of California, Irvine*
- 1:31 pm - 1:35 pm 120 - Prospective Study of Percutaneous Bone-Anchored Implants in Patients with Above Knee Amputation: the UCSF Experience  
*Musa Zaid, MD, University of California, San Francisco*

- 1:35 pm - 1:39 pm 366 - Vertebra Plana Caused by CRMO: A Case Series in Pediatric Patients  
*Jesse Roberts, MD, University of Colorado*
- 1:39 pm - 1:45 pm Discussion
- 1:45 pm - 1:49 pm 439 - Utility of Bioabsorbable Fixation of Osteochondral Lesions in the Adolescent Knee; Outcomes Analysis With Minimum 2 Year Follow-Up  
*Shawn Nguyen, DO, Children's Hospital of Orange County*
- 1:49 pm - 1:53 pm 47 - Secondary Surgeries Following Major Lower Extremity Amputations in the Pediatric Population  
*Christopher Joyce, MD, University of Colorado*
- 1:53 pm - 1:57 pm 177 - Validation of a Novel Method for Measuring Proximal Ulnar Alignment in the Pediatric Patient  
*Megan H. M. Kuba, MD, Kaiser Permanente Orange County*
- 1:57 pm - 2:01 pm 304 - Percutaneous Hip Adductor Release for Cerebral Palsy: Adolescents and Adults  
*David A. Yngve, MD, The University of Texas Medical Branch*
- 2:01 pm - 2:05 pm 314 - Distinctive Opiate Prescription Patterns in Adolescent Subpopulations following ACL Reconstruction  
*Charles M. Chan, MD, Stanford University*
- 2:05 pm - 2:09 pm 453 - Aseptic Nonunion in Long Bones among Pediatric Patients: A Report of Thirteen Cases  
*Ahmed Thabet, MD, Texas Tech University Health Sciences Center*
- 2:09 pm - 2:15 pm Discussion

#### **Rapid Fire Session 4C – Sports Medicine**

**Moderator:** TBD

- 1:15 pm - 1:19 pm 291 - 2 Year Revision ACL Reconstruction: Age-based Risk Factors  
*Matthew C. Gallo, BA, University of Southern California*
- 1:19 pm - 1:23 pm 456 - Interfacial Shear Mechanical Properties of Commercially Available Osteochondral Allografts  
*Dean Wang, MD, Hospital for Special Surgery*



- 1:23 pm - 1:27 pm 80 - When Do Patients Improve after Hip Arthroscopy For Femoroacetabular Impingement? A Prospective Cohort Analysis  
*Alan Zhang, MD, UCSF Medical Center*
- 1:27 pm - 1:31 pm 308 - Patellar Height Comparison Between Knees in Adolescents and Young Adults  
*Benjamin Albertson, MD, University of New Mexico*
- 1:31 pm - 1:35 pm 121 - The Effect of ACL Graft Choice On Meniscal Repair Success  
*Hytham S. Salem, MD, Universit of Colorado, Denver*
- 1:35 pm - 1:39 pm 239 - How Accurate Are Radiographic Landmarks at Predicting the Location of Lateral Knee Structures?  
*Thomas Kremen, MD, David Geffen School of Medicine at UCLA*
- 1:39 pm - 1:45 pm Discussion
- 1:45 pm - 1:49 pm 8 - The Effect of Turf Toe Injuries on Player Performance in the National Football League  
*Andrew Tran, MD, George Washington University*
- 1:49 pm - 1:53 pm 38 - Handedness Affects Resident Upper Extremity Motion Patterns During Arthroscopic Simulation  
*Joseph G. O'Sullivan, Oregon Health and Science University*
- 1:53 pm - 1:57 pm 81 - Air Arthrogram Aids Joint Distraction for Hip Arthroscopy and Decreases Acute Post-Operative Pain  
*Alan Zhang, MD, University of California, San Francisco Medical Center*
- 1:57 pm - 2:01 pm 93 - Return to Sport Following Medial Patellofemoral Ligament Reconstruction  
*Darby A. Houck, BA, University of Colorado Sports Medicine*
- 2:01 pm - 2:05 pm 95 - Does Workflow Influence Component Placement Accuracy to Plan for PKA?  
*Emily Hampp, MD, Mahwah, NJ*
- 2:05 pm - 2:09 pm 96 - The Impact of Workflow on Cutting Time for Partial Knee Arthroplasty

*Emily Hampp, MD, Mahwah, NJ*

2:09 pm - 2:15 pm

Discussion

**Rapid Fire Session 4D – Total Knee**

**Moderator:** TBD

1:15 pm - 1:19 pm

400 - Utility of Medial-to-Total Force Ratio in  
Kinematically Aligned TKA

*Trevor J. Shelton, MD, University of California, Davis*

1:19 pm - 1:23 pm

405 - Counseling Patients with Mechanically Aligned TKA  
Undergoing Kinematically Aligned TKA

*Trevor J. Shelton, MD, University of California, Davis*

1:23 pm - 1:27 pm

437 - Joint Replacement in X-Linked Hypophosphatemia

*Emily S. Mills, BS, Frank H. Netter MD School of Medicine  
at Quinnipiac University*

1:27 pm - 1:31 pm

328 - Defining a Safe Interval Between Preoperative  
Corticosteroid Injections and TKA's

*Sarah Bhattacharjee, Pritzker School of Medicine at the  
University of Chicago*

1:31 pm - 1:35 pm

66 - Predictors of Complications After TKA In Patients  
With A Prior Arthroscopy

*Geoffrey Rohlfing, MD, University of California, San  
Francisco*

1:35 pm - 1:39 pm

67 - Influence of Prior Arthroscopy on Revision TKA  
Complications and Readmissions

*Kamran Movassaghi, MD, University of California, San  
Francisco*

1:39 pm - 1:45 pm

Discussion

1:45 pm - 1:49 pm

98 - Periprosthetic Tissue Reaction Independent of LTT  
Result and Implanted Materials in TKA

*Brian Schneiderman, MD, Harbor UCLA Medical Center*

1:49 pm - 1:53 pm

128 - Outcome of Modern Blood Conservation Methods in  
Patients Undergoing Unicompartement Knee Replacement,  
Unilateral Total knee Replacement and Concurrent  
Bilateral Total Knee

*Rohan Bhimani, MD, Massachusetts General Hospital*

- 1:53 pm - 1:57 pm 435 - Outcomes of Kinematic, Gap balancing and Measured Resection Total Knee  
*Zachary C. Lum, DO, University of California: Davis Medical Center*
- 1:57 pm - 2:01 pm 197 - Preoperative Vitamin D Repletion in Total Knee Arthroplasty: A Preliminary Cost-effectiveness Model  
*Armin Arshi, MD, David Geffen School of Medicine at UCLA*
- 2:01 pm - 2:05 pm 424 - The Femoral Condyles are not Parallel in Coronal Plane; What is the Significance? A Radiographic and Computational Study  
*Mahdie Kerdari, MD, Rowan University*
- 2:05 pm - 2:09 pm 432 - To Evaluate The Efficacy and Safety of Buprenorphine 5 mg Patch in the Immediate Post Op Pain Relief Following Total Knee Replacement  
*Sanjay B. Londhe, MS FRCS FRCSI MCh (Orth), Holy Spirit Hospital*
- 2:09 pm - 2:15 pm Discussion

**Rapid Fire Session 4E – Total Hip**

**Moderator:** TBD

- 1:15 pm - 1:19 pm 310 - Comparing Different Hip Physical Examination Methods on the Diagnosis of Labral Tear  
*Farshad Adib, University of Maryland Orthopaedic Associates*
- 1:19 pm - 1:23 pm 349 - Direct Anterior Approach Total Hip Arthroplasty without Preoperative Templating - Challenging the Dogma of Preoperative Templating  
*Ian Hasegawa, MD, University of Hawaii*
- 1:23 pm - 1:27 pm 100 - Determining and Achieving Target Limb Length and Offset in Total Hip Arthroplasty using Intraoperative Digital Radiography  
*Eytan M. Debbi, MD, PhD, Cedars-Sinai Medical Center*
- 1:27 pm - 1:31 pm 215 - Is There a Relationship between Severity of Hip Dysplasia and Patient Reported Pain?  
*Shawn O. Okpara, BS, University of Texas Southwestern Medical Center*

1:31 pm - 1:35 pm	217 - Total Hip Arthroplasty for Osteoarthritis Secondary to Operatively Treated Acetabular Fractures; A Retrospective Analytic Study <i>Samer Kakish, MD, University of New Mexico</i>
1:35 pm - 1:39 pm	223 - Patient Reported Return to Driving Following Outpatient Total Hip Arthroplasty <i>Anne R. Wright, MD, University of Hawaii</i>
1:39 pm - 1:45 pm	Discussion
1:45 pm - 1:49 pm	32 - THA Outcomes in Adult Patients with Developmental Dysplasia of the Hip <i>Peter P. Hsiue, MD, University of California, Los Angeles</i>
1:49 pm - 1:53 pm	127 - Reduction of Femoral Offset after THA for Femoral Neck Fracture <i>Andrew A. Barrett, MD, Stanford University School of Medicine</i>
1:53 pm - 1:57 pm	287 - Are Complete Blood Count Tests Necessary after Total Hip Arthroplasty? <i>Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University</i>
1:57 pm - 2:01 pm	180 - 90-Day Safety of the Direct Superior Approach to Total Hip Arthroplasty <i>Rami M. Ezzibdeh, Stanford University School of Medicine</i>
2:01 pm - 2:05 pm	205 - Understanding Perceived Abduction and Anteversion Angles in Anterior Total Hip <i>Anne R. Wright, MD, University of Hawaii</i>
2:05 pm - 2:09 pm	211 - Does Pain Catastrophizing Predict Age of Onset in Symptomatic Hip Dysplasia and Femoroacetabular Impingement? <i>Shawn O. Okpara, BS, University of Texas Southwestern Medical Center</i>
2:09 pm - 2:15 pm	Discussion
<b>Resident Program</b>	
<b>Moderator:</b> Jeffrey E. Krygier, MD, <i>Santa Clara Valley Medical Center</i>	
2:15 pm – 5:30 pm	TBD

2:15 pm – 3:15 pm

**Scientific Poster & E-Poster Sessions**

3:15 pm – 4:15 pm

**Multimedia Education Session**

### **Saturday, August 3**

5:45 am – 6:40 am

**Scientific Poster & E-Poster Sessions**

6:40 am – 6:45 am

**Announcements**

*David H. Chafey III, MD, Co-Program Chair*

*David Mansfield, MD, Co-Program Chair*

#### **General Session 5 – WOF Resident Awards**

**Moderators:** David H. Chafey III, MD, *University of New Mexico*

David J. Mansfield, MD, *El Paso Orthopaedic Surgery Group*

6:45 am – 6:51 am

58 - Osteogenic and Chondrogenic Differentiation Defects in Geriatric Human Skeletal Stem Cells from Acute Fractures

*Lawrence H. Goodnough, MD, Stanford University*

6:51 am – 6:57 am

102 - MRI Improves Diagnosis of Ipsilateral Femoral Neck and Shaft Fractures

*Nathan Rogers, MD, University of Texas Health Science Center at Houston*

6:57 am – 7:03 am

289 - Hypovitaminosis D is a Risk Factor for Posterior Chain Muscular Injury in NCAA Division I Track and Field Athletes

*Adam Lindsay, MD, University of Southern California*

7:03 am – 7:09 am

385 - Improving Trainee Arthroscopic Knot Tying Skills Using the FAST Workstation

*Peters T. Otlans, MD, Oregon Health & Science University*

7:09 am – 7:15 am

108 - Prospective Validation of the Sepsis MetaScore as a Novel Blood Test for Acute Septic Arthritis

*Blake Schultz, MD, Stanford University*

7:15 am – 7:21 am

278 - Hip Survival Following Arthroscopy: Analysis of 12,733 Patients

*Jie Yao, MD, University of Washington*

7:21 am – 7:27 am

198 - Altered Cortical Activity During Single Leg Balance in ACL-Reconstructed Patients

*Benjamin C. Meyer, MD, MountainView Regional Medical Center*

7:27 am – 7:35 am

Discussion

7:35 am – 7:50 am

**Second Business Meeting**

**Symposium 5 – Trauma**

**Moderator:** Bryon D. Hobby, MD, FAAOS, *Billings Clinic*

7:50 am – 8:05 am

Improving Outcomes in Tibia Fractures  
*Bryon D. Hobby, MD, FAAOS, Billings Clinic*

8:05 am – 8:20 am

Critical-Size Bone Defect Tibia Nonunions: Evaluation and Management  
*Jason W. Stoneback, MD, University of Colorado*

8:20 am – 8:35 am

Spino-Pelvic Fixation: Indications and Controversies  
*Ronald W. Lindsey, MD, The University of Texas Medical*

*Branch*

8:35 am – 8:40 am

Discussion

8:40 am – 9:10 am

**Focused Brunch Presentation – Medtronic**  
\*CME Credit Not Available

**Rapid Fire Session 5A – Trauma Hip**

**Moderator:** TBD

9:15 am - 9:19 am

305 - Anesthesia Choice for Elderly Hip Fracture Patients: Should Anticoagulant Status Matter?  
*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*

9:19 am - 9:23 am

365 - Should an Elevated INR Delay Hip Fracture Surgery?  
*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*

9:23 am - 9:27 am

33 - Hip Arthroplasty Outcomes for Hip Fractures in Transplant Patients  
*Peter P. Hsiue, MD, University of California, Los Angeles*

9:27 am - 9:31 am

31 - Effect of Parkinson's Disease on Hemiarthroplasty Outcomes for Hip Fractures  
*Peter P. Hsiue, MD, University of California, Los Angeles*

- 9:31 am - 9:35 am Discussion
- 9:35 am - 9:39 am 118 - The Utility of Traction Radiographs in Preoperative Planning for Hip Fractures  
*Graham Albert, McGovern Medical School at UTHSCH*
- 9:39 am - 9:43 am 103 - Predictors For Thirty-day To One-year Readmission in a Geriatric Hip Fracture Population  
*Samuel K. Stephenson, MD, Cedars Sinai Medical Center*
- 9:43 am - 9:47 am 105 - Blood Transfusion Rates and Predictors Following Geriatric Hip Fracture Surgery  
*Armin Arshi, MD, David Geffen School of Medicine at UCLA*
- 9:47 am - 9:51 am 106 - Inpatient Rehabilitation Facility Utilization in Postsurgical Orthogeriatric Hip Fracture Care  
*Armin Arshi, MD, David Geffen School of Medicine at UCLA*
- 9:51 am - 9:55 am Discussion

**Rapid Fire Session 5B – Upper Extremity**

**Moderator: TBD**

- 9:15 am - 9:19 am 139 - Incidence of Corrective Procedures after Non-Operatively Managed Distal Radius Fractures in the Elderly  
*Nicholas P. Satariano, MD, University of California, San Francisco*
- 9:19 am - 9:23 am 209 - Thumb UCL Repair with Suture Tape Augmentation Restores Kinematics  
*Nilay A. Patel, MD, University of California, Irvine*
- 9:23 am - 9:27 am 152 - Comparison of Patient-Specific and Generic PROMs Following Elective Hand Surgery  
*Lauren M. Shapiro, MD, Stanford University*
- 9:27 am - 9:31 am 262 - Risk Factors for Failed Conservative Management of Trigger Digits  
*Hyunwoo P. Kang, MD, University of Southern California*
- 9:31 am - 9:35 am Discussion

- 9:35 am - 9:39 am 155 - Two-Word Assessment and its Association with Likelihood to Recommend  
*Lauren M. Shapiro, MD, Stanford University*
- 9:39 am - 9:43 am 86 - Articular Injuries in Acute and Chronic Operative Acromioclavicular Joint Injuries  
*Matti P. Asuma, MD, Madigan Army Medical Center*
- 9:43 am - 9:47 am 438 - Chronic Distal Biceps Avulsion Treated with Suture Button  
*Joseph D. Mueller, DO, Ventura Orthopedics*
- 9:47 am - 9:51 am 351 - Cost and Trends of Treatment for Proximal Humerus Fractures  
*Edward J. Wu, MD, Stanford University*
- 9:51 am - 9:55 am Discussion

**Rapid Fire Session 5C – Foot & Ankle**

**Moderator: TBD**

- 9:15 am - 9:19 am 35 - A Retrospective Radiographic Evaluation of Augment Bone Graft Fusion  
*Trevor J. Shelton, MD, University of California, Davis*
- 9:19 am - 9:23 am 92 - Postoperative Oral Antibiotics in Outpatient Foot and Ankle Surgery  
*Jacob R. Carl, MD, University of California, Davis*
- 9:23 am - 9:27 am 111 - A Prospective, Randomized Suture-button versus Screw Syndesmotic Fixation  
*Patrick S. Barousse, MD, University of California, Davis*
- 9:27 am - 9:31 am 140 - Radiographic Outcomes of Lisfranc Injuries Treated with a Suture Button Device  
*Connor Delman, MD, University of California, Davis*
- 9:31 am - 9:35 am Discussion
- 9:35 am - 9:39 am 230 - Utilization and Cost of Total Ankle Replacement versus Tibiotalar Arthrodesis  
*Cary S. Politzer, MD, University of California, San Diego*
- 9:39 am - 9:43 am 76 - Radiographic Evaluation of Adult Acquired Flatfoot Correction With Augmented Spring Ligament Repair  
*Jason Fogleman, MD, University of California, Davis*



9:43 am - 9:47 am 89 - Evaluation of the Learning Curve for Total Ankle Replacement Using the Transfibular Approach  
*Hyunwoo P. Kang, MD, University of Southern California*

9:47 am - 9:51 am 123 - Intraoperative Fluoroscopy Versus Postoperative Weightbearing Radiographs After Bunion Surgery  
*Amber L. Price, MD, University of New Mexico*

9:51 am - 9:55 am Discussion

**Rapid Fire Session 5D – Basic Science**  
**Moderator: TBD**

9:15 am - 9:19 am 26 - Aged Mice Demonstrate Greater Muscle Degeneration After Rotator Cuff Injury  
*Abhinav K. Sharma, BS, David Geffen School of Medicine at UCLA*

9:19 am - 9:23 am 75 - Regional Gene Therapy with Adipose-derived Stem Cells for Bone Repair  
*Venus Vakhshori, MD, LAC+USC Medical Center*

9:23 am - 9:27 am 335 - Dramatically Improved Strength of Proximal Humeral Fixation with a Tuberosity-Specific Fixation Plate  
*Robert S. Walker, MD, University of Arizona College of Medicine Phoenix*

9:27 am - 9:31 am 193 - Evaluation of Multiplanar Stability in Neer Type IIB Clavicle Fractures  
*John Garlich, MD, Cedars-Sinai Orthopaedic Surgery*

9:31 am - 9:35 am Discussion

9:35 am - 9:39 am 387 - Omega 3 Fatty Acid (O3FA) Supplementation Reduces Intervertebral Disc Degeneration  
*Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center*

9:39 am - 9:43 am 299 - Ex-Vivo Toxicity of Topical Antiseptics and Antibiotics on Human Chondrocytes  
*Erika L. Garbrecht, MD, University of New Mexico*

9:43 am - 9:47 am 34 - Blood Transfusions: Does Storage Duration Affect Postoperative Infection Risk?  
*Peter P. Hsiue, MD, University of California, Los Angeles*

9:47 am - 9:51 am 388 - Neural Crest-Derived Mesenchymal Stem Cells (MSCs) Enhance Bone Allograft Healing  
*Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center*

9:51 am - 9:55 am Discussion

**Rapid Fire Session 5E – Total Knee**

**Moderator: TBD**

9:15 am - 9:19 am 428 - CRP (C Reactive Protein ) Level After Total Knee Replacement in Indian Population- Does it Follow Anglo-Saxon Trend?  
*Sanjay B. Londhe, MS FRCS FRCSI MCh (Orth), Holy Spirit Hospital*

9:19 am - 9:23 am 430 - Post TKR Home Physiotherapy for a Period of 6 Weeks Reduces the Rate of Post TKR Manipulation Under Anesthesia (MUA) Rate  
*Sanjay B. Londhe, MS FRCS FRCSI MCh (Orth), Holy Spirit Hospital*

9:23 am - 9:27 am 24 - Cooled Radiofrequency Ablation (CRFA) of the Geniculate Nerves Prior to Unilateral Total Knee Arthroplasty (TKA) Reduces Patient Reported Pain Two Weeks Postoperatively  
*Jeffrey Lyman, MD, Institute for Orthopedic Research and Innovation*

9:27 am - 9:31 am 369 - Weight Loss Knowledge Base in the Total Joint Candidate  
*Kenton B. Panas, MD, University of Oklahoma*

9:31 am - 9:35 am Discussion

9:35 am - 9:39 am 65 – Influence Of Prior Arthroscopy On Primary TKA Complications And Readmissions  
*Geoffrey Rohlfing, MD, University of California, San Francisco*

9:39 am - 9:43 am 444 - Is there Risk to Using the Thinnest Liner in Primary TKA? Evaluation of Knee Range of Motion, Outcomes, and Manipulation Rates with the Thinnest Available Liner  
*Alexander P. Sah, MD, Institute for Joint Restoration*

9:43 am - 9:47 am 302 Investigating Repeated Intra-Articular Injections of The Anti-Inflammatory Compound LMWF-5A In Adults

with Severe Osteoarthritis: An Open-Label Extension Study  
*John Schwappach, MD, Denver Metro Orthopedics, PC*

9:47 am - 9:51 am                      401 - Revision of a Medial UKA to a Kinematically Aligned TKA  
*Trevor J. Shelton, MD, University of California, Davis*

9:51 am - 9:55 am                      Discussion

### **Concurrent Allied Health Session 3**

**Moderator:** Theodore W. Coates, PA-C, *University of California, Davis*

9:15 am – 10:15 am                      Pediatric Sports Medicine  
*Brian M. Haus, MD, University of California, Davis*

9:55 am – 10:20 am                      Break – Please visit Exhibits

### **Symposium 6 – Spine Surgery**

**Moderator:** Nitin N. Bhatia, MD, FACS, *University of California, Irvine*

10:20 am – 10:35 am                      Minimally Invasive Spine Surgery  
*Yu-Po Lee, MD University of California, Irvine*

10:35 am – 10:50 am                      Spinal Stenosis and New Technologies  
*Evalina Burger, MD, University of Colorado*

10:50 am – 11:05 am                      Pre-Operative Assessment of Bone Quality Prior to Adult Deformity Surgery  
*Olumide A. Danisa, MD, Loma Linda University Health*

11:05 am – 11:10 am                      Discussion

11:10 am – 11:40 am                      **Focused Lunch Presentation – Johnson & Johnson Medical Devices Company**  
\*CME Credit Not Available

### **General Session 6 – Own the Bone, BOC Report & Presidential Address**

**Moderators:** David H. Chafey III, MD, *University of New Mexico*  
David J. Mansfield, MD, *El Paso Orthopaedic Surgery Group*

11:40 am – 11:45 am                      Own the Bone  
*Fred C. Redfern, MD, Henderson, NV*

11:45 am – 11:50 am                      BOC Report  
*Bryan S. Moon, MD, MD Anderson Cancer Center*

11:50 am – 12:15 pm

Presidential Address

Dad's Lunchbox

*Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas  
Arthroscopy & Sports Medicine Institute*

**General Session 7 – Abstract Presentations**

**Moderator: TBD**

12:15 pm – 12:23 pm

**OREF/WOF Funded Presentation**

248 - The Impact of Early Sport Specialization on the  
Collegiate Athlete

*Caitlin M. Rugg, MD, UC San Francisco Orthopaedic  
Surgery*

12:23 pm – 12:31 pm

**OREF/WOF Funded Presentation**

Chondrocyte Viability After Exposure to Antiseptic  
Solutions and TXA

*Erika Garbrecht, MD, University of New Mexico*

12:31 pm – 12:37 pm

386 - Estrogen Receptor Alpha Expression in Female Knee  
Articular Cartilage

*Marissa Hughbanks, MD, University of Colorado School of Medicine*

- 12:37 pm – 12:43 pm      109 - How Mobile Technology Changes Reporting of Morbidity and Mortality  
*Christopher R. Johnson, MD, Cedars Sinai*
- 12:43 pm – 12:49 pm      296 - A Biomechanical Comparison of Dual-Plate and Plate-Nail Fixation in Supracondylar Distal Femur Fractures  
*David J. Wright, MD, University of California Irvine, Department of Orthopaedic Surgery*
- 12:49 pm – 12:55 pm      196 - Utility of Debridement for Ballistic Lower Extremity Fractures  
*Ali Azad, MD, University of Southern California*
- 12:55 pm – 1:01pm      425 - Is Posterior Referencing a Reliable Technique for Rotational Femoral Component Alignment in TKR?  
*Mahdie Kerdari, MD, Rowan University, Glassboro, New Jersey*
- 1:01 pm – 1:07 pm      340 - Hip and Knee Arthroplasty Medicare Reimbursement 2000-2018: An Unsustainable Trend  
*Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California*
- 1:07 pm – 1:13 pm      288 - The Necessity of Basic Metabolic Panel Tests After Total Hip Arthroplasty  
*Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University*
- 1:13 pm – 1:20 pm      Discussion

**Rapid Fire Session 6A – Trauma Femur**

Moderator: TBD

- 1:25 pm - 1:29 pm      170 – Comparison of IMN to Plating for Periprosthetic Distal Femur Fractures  
*Elizabeth Gausden, MD, University of Texas Health Science Center at Houston*
- 1:29 pm - 1:33 pm      187 - A New Orthogonal Plate Configuration in Treating Periprosthetic Proximal Femur Fractures  
*Kareem Shaath, MD, University of Texas Health Science Center*

1:33 pm - 1:37 pm	254 - Full Weight Bearing After Fixation of Vancouver B1 Femur Fractures <i>Malcolm DeBaun, MD, Stanford University</i>
1:37 pm - 1:41 pm	298 - Supracondylar Distal Femur Fractures: Nail Diameter Significantly Impacts Stability in Plate-Nail Constructs <i>David J. Wright, MD, University of California, Irvine</i>
1:41 pm - 1:45 pm	154 - Subsequent Femoral Fragility Fractures: Underreported and Construct-Related <i>Michael Murphy, Loyola University Medical Center</i>
1:45 pm - 1:49 pm	195 - Open Femur Fractures: Complications and Outcome <i>Mary Kate Erdman, MD, University of Southern California</i>
1:49 pm - 1:55 pm	Discussion
1:55 pm - 1:59 pm	182 - Closed versus Open Reduction For Young Patients with Femoral Neck Fractures <i>Adam J. Miller, MD, University of Texas Health Science Center at Houston</i>
1:59 pm - 2:03 pm	156 - Predictors of Nonunions in Young Patients with Femoral Neck Fractures <i>Adeet Amin, BA, University of Texas Houston Orthopedics</i>
2:03 pm - 2:07 pm	414 - Rates of Femoral Neck Fracture Union Using Variable Pitch Screws <i>Tony Bouz, DO, Fontana, CA</i>
2:07 pm - 2:11 pm	56 - Fractures Associated with Short Versus Long Cephalomedullary Nails: Distinct Injury Patterns and Patient Outcomes <i>Lawrence H. Goodnough, MD, Stanford University</i>
2:11 pm - 2:15 pm	269 - Prostheses Impact Amputee Quality of Life and Function in Tanzania <i>Syed Ali, University of California-San Francisco</i>
2:15 pm - 2:19 pm	115 - Moped Riders More Likely to Sustain Head Injuries than Motorcyclists <i>Tyler Kent, MD, University of Nevada Las Vegas</i>
2:19 pm - 2:25 pm	Discussion

## **Rapid Fire Session 6B – Total Knee**

Moderator: TBD

- 1:25 pm - 1:29 pm                      11 - Effect of Modern Blood Preservation Techniques in Patients Undergoing Unicompartement Knee Replacement, Unilateral Total knee Replacement and Concurrent Bilateral Total Knee Replacement  
*Rohan Bhimani, MD, Massachusetts General Hospital*
- 1:29 pm - 1:33 pm                      83 - Pes Planus is Associated with Poor Outcomes After TKA  
*Allison Roe, MD, Stanford Hospital*
- 1:33 pm - 1:37 pm                      12 - Difference between Mechanical Alignment in Navigation versus Scanogram during Total Knee Arthroplasty  
*Rohan Bhimani, MD, Massachusetts General Hospital*
- 1:37 pm - 1:41 pm                      71 - Utilization, Costs, and Complications of Outpatient versus Inpatient Unicompartemental Knee Arthroplasty  
*Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery*
- 1:41 pm - 1:45 pm                      284 - Routine Postoperative Complete Blood Count Tests after Total Knee Arthroplasty  
*Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University*
- 1:45 pm - 1:49 pm                      320 - Predictors of Changing Surgeon for Subsequent Elective Total Joint Replacement  
*Syed Ali, University of California-San Francisco*
- 1:49 pm - 1:55 pm                      Discussion
- 1:55 pm - 1:59 pm                      415 - Patella Baja after Knee Arthroscopy and Early Impact on TKA  
*David A. Brethouwer, DO, Kaiser Permanente Southern California*
- 1:59 pm - 2:03 pm                      245 - Modern Posterior Stabilized All-Polyethylene Tibias are Equal to Metal-Backed Tibias  
*Ezequiel A. Andrade, Hoag Orthopedics Institute*
- 2:03 pm - 2:07 pm                      285 - When Are Basic Metabolic Tests After Total Knee Arthroplasty Useful?  
*Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University*

2:07 pm - 2:11 pm 336 - Population-Based Survivorship of Computer Navigated Versus Conventional Total Knee Arthroplasty  
*Hyunwoo P. Kang, MD, University of Southern California*

2:11 pm - 2:15 pm 420 - Implementation of a Standardized Care Pathway for Total Knee Arthroplasty  
*Daniel Gelvez, BS, University of Texas Southwestern Medical Center*

2:15 pm - 2:19 pm 183 - Large Osteochondral Allograft Transplantation for Acute Traumatic Knee Articular Defects  
*Braden F. Goldberg, McGovern Medical School*

2:19 pm - 2:25 pm Discussion

### **Rapid Fire Session 6C – Sports Medicine**

Moderator: TBD

1:25 pm - 1:29 pm 138 - Pain Management of Anterior Cruciate Ligament Reconstruction  
*Augustine M. Saiz Jr., MD, University of California, Davis*

1:29 pm - 1:33 pm 169 - Impact of Sport and Injury: Assessing Athletes Using PROMIS Instruments  
*Kenneth J. Hunt, MD, University of Colorado Denver School of Medicine*

1:33 pm - 1:37 pm 321 - Does a Dual Attending Surgeon Strategy Confer Additional Benefit in Multi-Ligament Knee Injury Reconstruction?  
*Christopher Kurnik, MD, University of New Mexico*

1:37 pm - 1:41 pm 422 - Methodologic Quality of Top Cited Articles Relating to Knee Dislocation  
*David A. Hankins, MD, University of New Mexico*

1:41 pm - 1:45 pm 364 - Does Discoid Morphology Affect Performance on Return-to-Sport Testing After Meniscal Repair  
*Megan H. M. Kuba, MD, Kaiser Permanente Orange County*

1:45 pm - 1:49 pm 368 - Helmet Design and Hits to the Head: Analysis of NFL Tackling 1951-Present  
*David Wang, MD, GWU School of Medicine*



1:49 pm - 1:55 pm	Discussion
1:55 pm - 1:59 pm	457- Ramp Lesions of the Medial Meniscus in the Setting of ACL Rupture: Reoperation Rates and Clinical Outcomes <i>Dean Wang, MD, Hospital for Special Surgery</i>
1:59 pm - 2:03 pm	265 - Factors Associated with Delay in Diagnosis of ACL Injuries <i>Casey A. Slattery, BS, University of Washington</i>
2:03 pm - 2:07 pm	268 - Cost Data for Nonsurgical Treatments in Sports Medicine are Lacking <i>Jie Yao, MD, University of Washington</i>
2:07 pm - 2:11 pm	29 - Neuromonitoring Changes During Pediatric Hip Arthroscopy <i>Trevor J. Shelton, MD, University of California, Davis</i>
2:11 pm - 2:15 pm	293 - Future ACL Injury Risk After ACL Reconstruction in Patients with Vascular Comorbidities: a Retrospective Database Study <i>Matthew C. Gallo, BA, University of Southern California</i>
2:15 pm - 2:19 pm	376 - The Effect of Artificial Turf Versus Natural Grass on the Incidence of Ankle Injuries in NCAA Football 2004 - 2014 Seasons <i>Dave Milzman, MD, GWU School Of Medicine</i>
2:19 pm - 2:25 pm	Discussion

### **Rapid Fire Session 6D – Practice Management/Education & Other**

Moderator: TBD

1:25 pm - 1:29 pm	347 - What Patient Reported Outcome Should I Use? <i>Erik A. Magnusson, MD, University of Washington</i>
1:29 pm - 1:33 pm	134 - Tibial IMN: Virtual Reality vs. Standard Surgical Guide Randomized Study <i>Gideon Blumstein, MD, MS, University of California, Los Angeles</i>
1:33 pm - 1:37 pm	233 - The Presence and Implications of Education Silos in Orthopaedic Trauma <i>Mary Kate Erdman, MD, University of Southern California</i>

1:37 pm - 1:41 pm	263 - Predicting Loss to Follow-Up after Lower Extremity Fractures <i>Patrick Albright, BS, MS, University of California-San Francisco</i>
1:41 pm - 1:45 pm	46 - Bringing In An Associate - Friend or Future Foe? <i>Debra Phairas, San Francisco, CA</i>
1:45 pm - 1:49 pm	49 - Decreasing Orthopedic Reimbursement Trends From 2000-2016 <i>Robert S. Walker, MD, University of Arizona College of Medicine Phoenix</i>
1:49 pm - 1:55 pm	Discussion
1:55 pm - 1:59 pm	82 - Perioperative Mental Health Status Does Not Affect Patient Satisfaction After TKA <i>Laura Lu, Stanford University</i>
1:59 pm - 2:03 pm	158 - Early Regional Anesthesia Improves Pain Management in Geriatric Hip Fractures <i>John Garlich, MD, Cedars-Sinai Orthopaedic Surgery</i>
2:03 pm - 2:07 pm	329 - Postoperative Opioids are Associated with Nonunion After Long Bone Fractures <i>Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago</i>
2:07 pm - 2:11 pm	345 - Trends in Payments to Orthopedic Surgeons from 2013-2017 Following the Sunshine Act <i>Nathanael D. Heckmann, MD, Keck School of Medicine of the University of Southern California</i>
2:11 pm - 2:15 pm	412 - Alpha-Defensin Only Changes Clinical Decision-Making when Physicians are Undecided about the Diagnosis of Periprosthetic Joint Infection <i>Derek F. Amanatullah, MD, PhD, Stanford University</i>
2:15 pm - 2:19 pm	398 - The Efficacy of Pediatricians Splinting Injuries in the Office Setting <i>Byron H. Izuka, MD, Childrens Orthopaedics of Hawaii</i>
2:19 pm - 2:25 pm	Discussion

**Rapid Fire Session 6E – Spine**  
Moderator: TBD

- 1:25 pm - 1:29 pm 222 - Reduced Mortality in Pediatric Non-Idiopathic Scoliosis by Implementing a Multidisciplinary  
*Lorenzo de Rama Deveza, MD, PhD, Baylor College of Medicine*
- 1:29 pm - 1:33 pm 240 - Dural Tears and Venous Thromboembolic Complications. Is there Increased Risk?  
*Ram K. Alluri, MD, Keck Medical Center of USC*
- 1:33 pm - 1:37 pm 348 - Does Autism Alter the Risk Profile for Idiopathic Scoliosis Surgery?  
*John S. Vorhies, MD, Stanford University Medical Center*
- 1:37 pm - 1:41 pm 377 - Prospective Evaluation of Bilateral Decompression in Patients with Degenerative Spondylolisthesis  
*Kimberly E. Hall, MD, Stanford Hospital and Clinics*
- 1:41 pm - 1:45 pm 411 - Efficacy and Safety of Early Thromboprophylaxis After Spinal Cord Injury  
*Seth Ahlquist, BS, David Geffen School of Medicine at UCLA*
- 1:45 pm - 1:49 pm 418 - Resiliency and Patient Reported Outcomes in Active-Duty Military Patients Undergoing Lumbar Spinal Surgery  
*Nicholas J. Drayer, MD, Madigan Army Medical Center*
- 1:49 pm - 1:55 pm Discussion
- 1:55 pm - 1:59 pm 455 - Economic Impact of Revisions for Cervical Spine Adjacent Segment Disease  
*Alexander A. Theologis, MD, University of California, San Francisco*
- 1:59 pm - 2:03 pm 21 - Risk Factors for Dysphagia/Dysphonia after Anterior Cervical Spine Surgery  
*Ruwan Ratnayake, MD, University of California, Davis Medical Center*
- 2:03 pm - 2:07 pm 244 - Semitendinosus Ligament Reinforcement for Prevention of Proximal Junctional Failure  
*Ram K. Alluri, MD, Keck Medical Center of USC*
- 2:07 pm - 2:11 pm 251 - Spinolaminar Cortical Locking Plate: A Biomechanical Analysis for Lumbar Arthrodesis

*Khalid Odeh, MD, St. Mary's Medical Center, San Francisco*

2:11 pm - 2:15 pm

39 - Utilization and Reimbursement Trends Based on Certificate-of-Need in Single-Level Cervical Decompression  
*Abiram Bala, MD, Stanford University*

2:15 pm - 2:19 pm

54 - Repeat Cervical Spine MRI in Patients with Documented Cervical Degeneration  
*Grant McChesney, MD, University of Texas Medical Branch*

2:19 pm - 2:25 pm

Discussion

**Concurrent Allied Health Session 4**

Moderator: Theodore W. Coates, PA-C, University of California, Davis

1:25 pm – 2:25 pm

**Ultrasound Injection Lab**  
*Speaker TBD*

2:25 pm – 3:25 pm

**Multimedia Education Session**