



# Society of Military Orthopaedic Surgeons

## 58th Annual Meeting

December 12-16, 2016 | The Resort at Squaw Creek | Olympic Valley, CA

### Download the Complete Program

On a mobile device, in the Apple Store or Google Play store, search "DTMS" and download; on a laptop go online to <https://datatrace.gatherdigital.com>.

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# Grantor & Exhibitor Acknowledgements

The Society of Military Orthopaedic Surgeons is grateful for the support of its educational grantors and exhibitors. Thank you for your participation and commitment to SOMOS.

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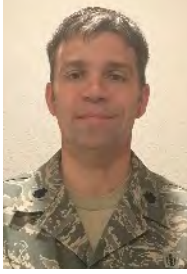
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# SOMOS President's Welcome



Dear SOMOS Colleagues,

It is my pleasure and honor to welcome you to Squaw Valley and this year's Annual Meeting. We are celebrating the 58th Annual Meeting of the Society of Military Orthopaedic Surgeons. Because of you, the outstanding members of SOMOS, this meeting will prove to be the best one yet. We had a record number of abstract submissions reflecting your dedication to research. Our two program co-chairs, Drs. James Blair and Judd Robins, have put together a stellar program of didactics and research presentations for this year's Annual Meeting. I am very excited about the program that they have put together. Additionally, many thanks to our Orthopaedic Consultants, the SOMOS Board of Directors and our Committee Chairs who have put in a tremendous amount of work to make this year's meeting a resounding success.

The academic program includes cutting edge research from our members and over 12 instructional course lectures from world renown experts in their sub-specialty fields. We will be honored to have current AAOS president Dr. Gerald Williams speak to us not only about his experience in treating shoulder conditions but also on the status of AAOS and where our national society will be going in the future.

There will be many opportunities to have non-CME educational activities during breaks and lunches. These activities have been designed to give you exposure to new surgical techniques and the latest in surgical technology. Additionally, there will be ample time to reconnect with colleagues, discuss cases, and collaborate on future research. I strongly encourage you to take full advantage of all the educational opportunities available to you during the Annual Meeting. Sign up early for the hands-on training during the lunches and vendor workshops. We also have several great events planned for the Commanders' Cup! As always there will be stiff competition from the three services as we fight for the Commanders Cup supremacy!

SOMOS continues to afford its membership many opportunities in researcher, leadership and volunteerism. I would highly recommend that each of you consider getting involved in many of the committees and programs that SOMOS offers. This year we are excited to have a new mentor program where mentors who have been in SOMOS for many years have graciously offered to take new residents and/or junior staff under their wings. This is an excellent opportunity to stand on the shoulder of giants. Additionally, we are proud to announce a new leadership award for junior staff to attend the John Feagin Leadership Program in May 2017. If you missed out on applying this year, I would highly recommend applying next year.

We are very excited to have a long-awaited DoD collaborative database to enable to answer many of the pressing questions that our patients and their conditions present to us. This database and the research we glean from it will put SOMOS surgeons at the forefront of our profession giving us even more opportunities to serve.

Again, welcome to the Annual Meeting. It is my desire that everyone will come away with some pearl of knowledge that will enable us to be better surgeons, leaders and educators.

Sincerely,

*Mark Slabaugh, MD*

Lt Col Mark Slabaugh, MD  
2016 President, Society of Military Orthopaedic Surgeons

# Summary of Events

## Dress Code

### Speakers

Military: Service Uniform/Class "A"  
Civilian: Suit & Tie

### Awards Dinner

Military & Civilian: Business Casual

### Special Events

Casual

### Educational Sessions

Military: Working Uniform/Class "C"  
Civilian: Business Casual

## Monday, December 12

12:00 pm-5:00 pm

**Board of Directors Meeting** *Tinker's Knob*

12:00 pm-8:00 pm

**Meeting Registration** *Grand Sierra Ballroom Foyer*

12:00 pm-11:59 pm

**Speaker Ready Area** *Grand Sierra Ballroom Pre-Function*

5:30 pm-6:30 pm

**Sponsor Reception** *Granite Chef*

6:30 pm-9:00 pm

**Welcome Reception with Exhibitors** *Grand Sierra Ballroom*

Join us for a fun evening filled with delicious food, and many of your medical industry friends as we kick off an exceptional week. This is an opportunity to visit with the Exhibitors.

*Price: Included in Registration Fee, Unregistered Spouse or Guest \$60; Unregistered Children 5 and older \$25*

## Tuesday, December 13

12:00 am-11:59 pm

**Speaker Ready Area** *Grand Sierra Ballroom Pre-Function*

6:30 am-8:00 am

**Registered Attendees' Breakfast** *Grand Sierra Ballroom*

6:30 am-11:45 am

**Meeting Registration** *Grand Sierra Ballroom*

6:30 am-11:45 am

**Technical Exhibits, Coffee Breaks and Daily Drawing**

*Grand Sierra Ballroom*

The Drawing will take place at the end of the Second Break in the Exhibit Area. You must be present to win!

7:00 am-7:20 am

**Opening Ceremony** *Alpine Ballroom*

7:20 am-7:50 am

**Symposium 1: Lower Extremity Injuries 1** *Alpine Ballroom*

7:50 am-8:10 am

**Break with Exhibitors** *Grand Sierra Ballroom*

8:10 am-9:10 am

**General Session 1: Lower Extremity Injuries 1** *Alpine Ballroom*

9:15 am-9:45 am

**Rapid Fire Session 1A: Miscellaneous Trauma** *Castle Peak A*

**Rapid Fire Session 1B: Basic Science** *Castle Peak B*

**Rapid Fire Session 1C: Education** *Monument Peak B*

**Rapid Fire Session 1D: Military Medicine** *Pyramid Peak*

9:50 am-10:20 am

**Symposium 2: Lower Extremity Injuries 2** *Alpine Ballroom*

10:20 am-10:40 am

**Break with Exhibitors** *Grand Sierra Ballroom*

10:40 am-11:40 am

**General Session 2: Lower Extremity Injuries 2** *Alpine Ballroom*

11:40 am-12:40 pm

**SOMOS Luncheon – Industry Presentations** \*Not for CME Credit

**DePuy** *Papoose Peak*

**DT MedSurg, LLC, a Data Trace Company** *Monument Peak A*

(Seminar presentation supported by an unrestricted educational grant from Pacira Pharmaceuticals, Inc.)

**Legally Mine** *Silver Peak*

**Stryker Orthopaedics** *Emigrant Peak A & B*

12:45 pm-2:15 pm

**Scientific E-Poster Session**

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Presenters will be available to answer questions.

2:15 pm-3:30 pm

**Multimedia Education Session** *Grand Sierra Ballroom Pre-Function*

3:30 pm-5:00 pm

**Meeting Registration** *Grand Sierra Ballroom*

3:30 pm-4:00 pm

**Symposium 3: Upper Extremity Trauma** *Alpine Ballroom*

4:00 pm-5:00 pm

**General Session 3: Upper Extremity Trauma** *Alpine Ballroom*

5:00 pm-6:00 pm

**Scientific E-Poster Session**

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Presenters will be available to answer questions.

7:00 pm-10:00 pm

**Commander's Cup Event** *Ice Skating Arena*

**Broomball Tournament and Spectator Event**

It's time to heat things up with the first event of the Commander's Cup Competition! The race to the cup begins with a "friendly," outdoor Broomball Tournament where teams of six will heat up the ice during this "hockey like" sporting event. Off the ice, hearty fare will warm your spirits, and an outdoor bar will be available to keep you

# Summary of Events

toasty as you cheer on your favorite team. Rubber-soled shoes required for all participants.

*Price: Players – \$5 per person (maximum 48); Spectators – Included in Registration*

## Wednesday, December 14

12:00 am-11:59 pm

**Speaker Ready Area** *Grand Sierra Ballroom Pre-Function*

6:30 am-7:00 am

**Scientific E-Poster Session**

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Presenters will be available to answer questions.

6:30 am-8:00 am

**Registered Attendees' Breakfast** *Grand Sierra Ballroom*

6:30 am-11:25 am

**Meeting Registration** *Grand Sierra Ballroom*

6:30 am-11:25 pm

**Technical Exhibits, Coffee Breaks and Daily Drawing**

*Grand Sierra Ballroom*

The Drawing will take place at the end of the Second Break in the Exhibit Area. You must be present to win!

7:00 am-7:30 am

**Symposium 4: Sports – Knee** *Alpine Ballroom*

7:30 am-8:30 am

**General Session 4: Sports – Knee** *Alpine Ballroom*

8:30 am-8:50 am

**Break with Exhibitors** *Grand Sierra Ballroom*

8:50 am-9:20 am

**Rapid Fire Session 2A: Shoulder Instability** *Castle Peak A*

**Rapid Fire Session 2B: Young Adult Hip Preservation Session**

*Castle Peak B*

**Rapid Fire Session 2C: Sports Knee** *Monument Peak B*

**Rapid Fire Session 2D: Miscellaneous** *Pyramid Peak*

9:25 am-9:55 am

**Symposium 5: Sports Foot and Ankle Injuries**

*Alpine Ballroom*

9:55 am-10:15 am

**Break with Exhibitors** *Grand Sierra Ballroom*

10:15 am-11:15 am

**General Session 5: Sports Foot and Ankle Injuries**

*Alpine Ballroom*

11:15 am-11:25 am

**CDR Michael T. Mazurek Clinician Scholar Award Presentation**

*Alpine Ballroom*

11:25 am-12:25 pm

**SOMOS Luncheon – Industry Presentations** \*Not for CME Credit

**Bioventus** *Papoose Peak*

**Stryker Orthopaedics** *Emigrant Peak A & B*

12:30 pm-2:00 pm

**Scientific E-Poster Session**

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Presenters will be available to answer questions.

2:00 pm-3:30 pm

**Multimedia Education Session** *Grand Sierra Ballroom Pre-Function*

3:30 pm-6:00 pm

**Meeting Registration** *Grand Sierra Ballroom*

3:30 pm-4:00 pm

**Symposium 6: Sports – Pediatric Sports Injuries** *Alpine Ballroom*

4:00 pm-5:00 pm

**General Session 6: Sports – Sports Injuries** *Alpine Ballroom*

5:00 pm-5:10 pm

**Break**

5:10 pm-5:40 pm

**Current Concepts** *Alpine Ballroom*

5:40 pm-6:00 pm

**Joint-Service Research Initiative** *Alpine Ballroom*

6:00 pm-6:45 pm

**SOMOS Dinner – Industry Presentation** \*Not for CME Credit

**DT MedSurg, LLC, a Data Trace Company** *Alpine Ballroom*

(Seminar presentation supported by an unrestricted educational grant from Pacira Pharmaceuticals, Inc.)

Advances in Postsurgical Pain Management by Romney Andersen, MD

7:00 pm-9:00 pm

**Commander's Cup Event** *Ice Skating Arena*

**Curling Tournament and Spectator Event**

What is curling? Seemingly simple, but very competitive, curling utilizes a granite stone, a long handled brush, a sheet of ice, and a target 42 yards away. The team of four that finishes with their stones closer to the target than their opponents' wins a game. Curling is an Olympic sport, which uniquely mixes keen competition and camaraderie with a wonderful social atmosphere. Enjoy the s'mores and other sweets then warm up with your favorite coffee liquor drink!

*Price: Players – \$5 per person (maximum 48); Spectators – Included in Registration*

## Thursday, December 15

12:00 am-11:59 pm

**Speaker Ready Area** *Grand Sierra Ballroom Pre-Function*

# Summary of Events

5:30 am-8:00 am

**Registered Attendees' Breakfast** *Grand Sierra Ballroom C & D*

6:00 am-7:00 am

**Service Consultant Breakouts**

Air Force *Silver Peak*

Army *Alpine Ballroom*

Navy *Monument Peak*

6:00 am-11:30 am

**Meeting Registration** *Grand Sierra Ballroom*

7:00 am-7:30 am

**Symposium 7: Hand** *Alpine Ballroom*

7:30 am-8:30 am

**General Session 7: Jamie Dianne Bulken-Hoover Memorial Hand Session** *Alpine Ballroom*

8:30 am-8:45 am

**Refreshment Break** *Grand Sierra Ballroom Pre-Function*

8:45 am-9:15 am

**Rapid Fire Session 3A: Hand** *Castle Peak A*

**Rapid Fire Session 3B: Spine** *Castle Peak B*

**Rapid Fire Session 3C: Shoulder Reconstruction/Pediatric**  
*Monument Peak B*

**Rapid Fire Session 3D: Adult Reconstruction** *Pyramid Peak*

9:20 am-9:50 am

**AAOS Report & Business Meeting** *Alpine Ballroom*

10:00 am-10:30 am

**Symposium 8: Shoulder** *Alpine Ballroom*

10:30 am-11:30 am

**General Session 8: Shoulder** *Alpine Ballroom*

11:30 am-12:30 pm

**Scientific E-Poster Session**

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Presenters will be available to answer questions.

12:00 pm-2:00 pm

**Commander's Cup Event** *Nastar Course*

**Dual Slalom Event**

This is the final event in the Commander's Cup Competition. If you have ever wanted to race like the members of the U.S. Ski Team, now is your chance! Each racer gets a chance to achieve the fastest time on two combined runs.

*Price: \$5 per person*

12:00 pm-2:00 pm

**American Society for Surgery of the Hand Luncheon** *Tinker's Knob*

12:30 pm-1:30 pm

**Multimedia Education Session** *Grand Sierra Ballroom Pre-Function*

6:30 pm-10:00 pm

**Awards Dinner** *Cascades*

Enjoy delicious food, drinks and good friends as we celebrate the many successes of the week! This signature event will include the COL Brian Allgood Memorial Leadership Award presentation along with the winners of the Founder's Award, the Norman T. Kirk Award, and the Louise House Award, a few special recognitions, and the winner of this year's Commander's Cup Competition.

**Presidential Guest Speaker: COL Michael Steele**

*Price: Included in Registration Fee; Unregistered Spouse/Guest \$85; Unregistered Children 5 and over \$25*

## Friday, December 16

12:00 am-11:45 pm

**Speaker Ready Area** *Grand Sierra Ballroom Pre-Function*

6:30 am-7:00 am

**Scientific E-Poster Session**

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Presenters will be available to answer questions.

6:30 am-8:00 am

**Registered Attendees' Breakfast** *Grand Sierra Ballroom C & D*

6:30 am-11:45 am

**Meeting Registration** *Grand Sierra Ballroom*

7:00 am-7:30 am

**Symposium 9: Adult Reconstruction** *Alpine Ballroom*

7:30 am-8:30 am

**General Session 9: Adult Reconstruction** *Alpine Ballroom*

8:30 am-9:00 am

**Symposium 10: Spine** *Alpine Ballroom*

9:00 am-9:15 am

**Refreshment Break** *Grand Sierra Ballroom Pre-Function*

9:15 am-10:15 am

**General Session 10: Spine** *Alpine Ballroom*

10:15 am-10:25 am

**Refreshment Break** *Grand Sierra Ballroom Pre-Function*

10:25 am-10:55 am

**Symposium 11: Tumor** *Alpine Ballroom*

10:55 am-11:45 am

**General Session 11: Tumor** *Alpine Ballroom*

11:45 am-12:45 pm

**Multimedia Education Session** *Grand Sierra Ballroom Pre-Function*

11:50 am-1:45 pm

**Board of Directors' Meeting** *Tinker's Knob*

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

## CME ACCREDITATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 30.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

- \* 20 CME Credits for Scientific Program
- \* 6 CME Credits for Scientific E-Poster Sessions
- \* 4.75 CME Credits for Multimedia Education Sessions

To ensure correct CME credit is awarded, please go online to [www.somos.org](http://www.somos.org) to complete the SOMOS 2016 Annual Meeting CME Credit Records. CME Certificates will be awarded to all registered participants.

## Tuesday, December 13

### Opening Ceremony

Moderators: MAJ James A. Blair, MD, Program Co-Chair, William Beaumont Army Medical Center, El Paso, TX

Lt Col R. Judd Robins, MD, Program Co-Chair, United States Air Force Academy, Colorado Springs, CO

Lt Col Mark A. Slabaugh, MD, President, United States Air Force Academy, Colorado Springs, CO

7:00 am Color Guard

7:10 am Report of SOMOS President

### Symposium 1: Lower Extremity Injuries 1

Moderator: MAJ James A. Blair, MD, William Beaumont Army Medical Center, El Paso, TX

7:20 am Femoral Head Fractures  
H. Claude Sagi, MD, Harborview Medical Center, Seattle, WA

7:45 am Discussion

7:50 am **Break with Exhibitors** *Grand Sierra Ballroom*

### General Session 1: Lower Extremity Injuries 1

Civilian Moderator: H. Claude Sagi, MD, Harborview Medical Center, Seattle, WA

Military Moderator: MAJ James A. Blair, MD, William Beaumont Army Medical Center, El Paso, TX

8:10 am Quality Of Life, Spatiotemporal Gait Parameters And Overall Outcomes In Patients With Elective Delayed Amputation After Failed Limb Preservation  
LT Kimberly Spahn, MD, Naval Medical Center San Diego, San Diego, CA

8:16 am Femoral Neck Stress Fractures In Military Recruits: Clinical Course And Risk Factors For Progression  
LT Clarence E. Steele, MD, Naval Medical Center San Diego, San Diego, CA

8:22 am Functional Outcomes of Operatively Treated Femoral Neck Stress Fractures  
CPT Emmanuel D. Eisenstein, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Timothy B. Pekari, MPAS

8:28 am Discussion

8:34 am Lower Extremity Non Tensioned Traction Pins: Is It A Benign Procedure?  
CAPT Irshad A. Shakir, MD, Saint Louis University School of Medicine, St. Louis, MO

8:40 am Delayed Primary Closure Of Fasciotomies Utilizing Acute Dermatotractor  
Capt James W. Barnes, MD, University of Missouri - Kansas City, Kansas City, MO

8:46 am Spatiotemporal Gait Improvements After Pilon Fracture Using The Intrepid Dynamic Skeletal Orthosis  
LT Michael A Quacinella, DO, MPH, Naval Medical Center San Diego, San Diego, CA

8:52 am Dismounted Complex Blast Injuries: Patterns Of Contralateral Limb Injuries In Patients With Lower Extremity Amputations  
CPT Steven Wilding, MD, Tripler Army Medical Center, Honolulu, HI

8:58 am Early Revision Surgery For Tibial Plateau Fractures  
LT Dominic Van Nielen, MD, Naval Medical Center Portsmouth, Portsmouth, VA

9:04 am Discussion

**Rapid Fire Session 1A: Miscellaneous Trauma** *Castle Peak A*  
Moderator: MAJ Justin T. Fowler, MD, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX

9:15 am Plafond Impaction In Supination-Adduction Ankle Fractures: The Role Of Computed Tomography In Diagnosis And Surgical Planning  
Ram K. Alluri, MD, Keck School of Medicine at USC, Los Angeles, CA

9:19 am Outcomes Of Lisfranc Injuries In An Active Duty Military Population  
CPT Michael P. Hawkinson, MD, San Antonio Military Medical Center, San Antonio, TX

9:23 am Treatment of Low Energy Lisfranc Joint Injuries in a Young Athletic Population: Primary Arthrodesis Compared with Open Reduction and Internal Fixation  
LCDR Grant K. Cochran, MD, Naval Medical Center San Diego, San Diego, CA

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

9:27 am Discussion

9:30 am Introduction of Modern Reverse Total Shoulder Arthroplasty: A Comprehensive Analysis of a High-Volume Center

Maj Dane H. Salazar, MD, Washington University, St. Louis, MO

9:34 am Outcomes Of Triceps Rupture In The US Military. Minimum 2 Year Follow-Up

CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX

\*Presented by CPT Nicholas Zarkadis, DO

9:38 am A Systematic Review Of Pre-Clinical Trials To Prevent Or Treat Bone Non-Union

Captain Sarah K. Stewart, MBChB, Frimley Park Hospital, Surry, UK

9:42 am Discussion

## **Rapid Fire Session 1B: Basic Science** *Castle Peak B*

Moderator: MAJ Jessica C. Rivera, MD, US Army Institute of Surgical Research, JBSA-Fort Sam Houston, TX

9:15 am The Effect Of Mesenchymal Progenitor Cell Therapy On Fibrosis And Recovery In A Muscle Crush Model

LT Daniel W. Griffin, MD, William Beaumont Army Medical Center, El Paso, TX

\*Presented by CPT Christopher Daniels, MD

9:19 am In-Vivo Chondrotoxicity Of Liposomal Bupivacaine In A Porcine Model

CPT K. Aaron Shaw, DO, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

9:23 am Detecting Differences In The Interpretation Of Radiographs: Do Gaze Data Vary Based On Level Of Expertise?

Maj Andrew J. Sheean, MD, San Antonio Military Medical Center, San Antonio, TX

9:27 am Discussion

9:30 am In Vitro Effect Of Vancomycin On The Viability Of Articular Chondrocytes

CPT K. Aaron Shaw, DO, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

9:34 am Serum Metal Ions In Well-Functioning Total Hip Arthroplasty: Does Femoral Stem Metallurgy Affect Results?

LCDR Brian T. Barlow, MD, Naval Medical Center San Diego, San Diego, CA

9:38 am Local Control Of Polymicrobial Infections Via A Dual Antibiotic Delivery System

CPT David J. Tennent, MD, San Antonio Military Medical Center, Fort Sam Houston, TX

9:42 am Discussion

## **Rapid Fire Session 1C: Education** *Monument Peak B*

Moderator: LtCol Wade T. Gordon, MD, Walter Reed National Military Medical Center, Bethesda, MD

9:15 am Orthopaedic Residency Training Structure. Implications On Quantity And Quality Of Scholarship

CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX

\*Presented by CPT Richard Van Tienderen, DO

9:19 am Publication Rate Of Abstracts Presented At The Annual Military Orthopaedic Meeting,

CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX

\*Presented by CPT Richard Van Tienderen, DO

9:23 am Factors Impacting The Quantity And Quality Of Research Publications At Academic Orthopaedic Residency Programs

MAJ Chad A. Krueger, MD, Womack Army Medical Center, Fort Bragg, NC

9:27 am Discussion

9:30 am 3-Year Analysis Of Value And Utilization After Development Of An Orthopaedic Ultrasound Injection Clinic

CPT Chase A. Dukes, MD, Madigan Army Medical Center, Tacoma, WA

9:34 am Orthopaedic Resident Surgical Case Log Disparities Observed In The Next Accreditation System

CPT Jonathan H. Payne, MD, San Antonio Military Medical Center, Fort Sam Houston, TX

9:38 am Analysis Of References Used In Orthopaedic Self-Assessment Exams

Capt Sean P. Moroze, MD, San Antonio Military Medical Center, Fort Sam Houston, TX

\*Presented by Capt Andrew S. Murtha, MD

9:42 am Discussion

## **Rapid Fire Session 1D: Military Medicine** *Pyramid Peak*

Moderator: LTC Kenneth J. Nelson, MD, Womack Army Medical Center, Fort Bragg, NC

9:15 am Something Old Or Something New? Casualty Care Behind The Lines 1916

COL (RTD) Peter F. Sharwood, MBBS, FRACS, FA(Orth)A, Greenslopes Private Hospital, Brisbane, QLD

9:19 am An Analysis Of The Most Commonly Tested Topics And Their Taxonomy From Recent Self-Assessment Examinations

Capt Andrew S. Murtha, MD, San Antonio Military Medical Center, Fort Sam Houston, TX

9:23 am The Impact Of The Thomas Splint

COL (RTD) Peter F. Sharwood, MBBS, FRACS, FA(Orth)A, Greenslopes Private Hospital, Brisbane, QLD

9:27 am Discussion



# Scientific Program Alpine Ballroom, Unless Otherwise Specified

9:30 am Evolution Of FSTS Supporting Unconventional Warfare: Considerations For Future Development And Utilization  
CPT(P) Michael A. Donohue, MD, Walter Reed National Military Medical Center, Bethesda, MD

9:34 am Deployment Numbers And What They Are Telling Us  
MAJ Jeremy McCallum, MD, Landstuhl Regional Medical Center, Landstuhl, Germany

9:38 am The Interwar Period: Promising Role For Medical Readiness Training Exercises In Maintaining Military Orthopedic Surgical Skills  
2D LT Kelly C. Mead, BA, San Antonio Military Medical Center, Fort Sam Houston, TX

9:42 am Discussion

## Symposium 2: Lower Extremity Injuries 2

Moderator: Maj Ryan Finnan, MD, University of Cincinnati, Cincinnati, OH

9:50 am Failure: Engineering in Orthopaedics  
Michael T. Archdeacon, MD, MSE, University of Cincinnati Academic Health Center, Cincinnati, OH

10:15 am Discussion

10:20 am **Break with Exhibitors** *Grand Sierra Ballroom*

## General Session 2: Lower Extremity Injuries 2

Civilian Moderator: Michael T. Archdeacon, MD, MSE, University of Cincinnati Academic Health Center, Cincinnati, OH

Military Moderator: Maj Ryan Finnan, MD, University of Cincinnati, Cincinnati, OH

10:40 am **Founder's Award**  
Continual Near Infrared Spectroscopy Monitoring in the Injured Extremity at Risk for Acute Compartment Syndrome—Results of a Prospective, FDA-IDE Trial  
Brett A. Freedman, MD, Mayo Clinic, Rochester, MN

10:46 am A Pilot Study Of Tele-Surgery For Compartment Release  
LCol Max Talbot, MD, FRCSC, Canadian Armed Forces, Montréal, QC

10:52 am Creation And Evaluation Of A Training Program To Train Non-Orthopedic Medical Personnel To Accurately Measure Leg Intracompartmental Pressure With Use Of A Novel Pressure Transducer  
Lt Col Christopher T. LeBrun, MD, R. Adams Cowley Shock Trauma Center, Baltimore, MD

10:58 am Mechanical Wound Therapy - The Next Generation in Advanced Wound Care  
Brett A. Freedman, MD, Mayo Clinic, Rochester, MN

11:04 am Discussion

11:10 am ORIF vs ORIF And Primary Subtalar Arthrodesis For Displaced Intraarticular Calcaneus Fractures: A Decision Analysis  
CPT Emmanuel D. Eisenstein, MD, William Beaumont Army Medical Center, El Paso, TX

11:16 am Combat Hindfoot Fractures In UK Military 2003-2014 - Is Salvage Feasible?  
Surg Lt Philippa M. Bennett, MB, ChB, Royal Centre for Defence Medicine, Birmingham, UK

11:22 am Outcomes Of Talus Fractures Associated With Combat-Related Injuries  
Capt Travis J. Junge, MD, San Antonio Military Medical Center, San Antonio, TX

11:28 am Hindfoot Fractures In UK Combat Casualties: Medium-Term Patient Reported Outcomes  
Surg Lt Cdr Jowan G. Penn-Barwell, MB ChB, MSc, FRCS (Tr & Orth), Royal Centre for Defence Medicine, Birmingham, UK

11:34 am Discussion

## 11:40 am SOMOS Luncheon – Industry Presentations

*\*Not for CME Credit*

**Legally Mine** *Silver Peak*

*Keys to Locking Out Lawsuits and Lowering Taxes*

Presented by Art McOmber

**DePuy Synthes** *Papoose Peak*

**DT MedSurg, LLC, a Data Trace Company** *Monument Peak A*

(Seminar presentation supported by an unrestricted educational grant from Pacira Pharmaceuticals, Inc.)

*Latest Developments in Avoiding Opioid Dependency*

*Following Surgery* by Romney Andersen, MD

**Stryker Orthopaedics** *Emigrant Peak A & B*

*The Surgical Spine, When Surgery Is The Answer & Common Procedures For Treatment* by Joel Jenne, MD

## 12:45 pm Scientific E-Poster Session

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Poster presenters will be available to answer questions.

## 2:15 pm Multimedia Education Session

*Grand Sierra Ballroom Pre-Function*

## Symposium 3: Upper Extremity Trauma

Moderator: Lt Col Christopher T. LeBrun, MD, R. Adams Cowley Shock Trauma Center, Baltimore, MD

3:30 pm Fractures of the Clavicle: How Science Changed Practice

Michael D. McKee, MD, St. Michael's Hospital, Toronto, ON

3:55 pm Discussion

## General Session 3: Upper Extremity Trauma

Civilian Moderator: Michael D. McKee, MD, St. Michael's Hospital, Toronto, ON

Military Moderator: Lt Col Christopher T. LeBrun, MD, R. Adams Cowley Shock Trauma Center, Baltimore, MD

4:00 pm Upper Extremity Injuries and Correlates with Amputation Outcome Following Combat Trauma  
Capt John J. Carroll, MD, San Antonio Military Medical Center, San Antonio, TX

4:06 pm Operative Management Of Unstable Radial Head Fractures In A Young Active Population  
CPT Emmanuel D. Eisenstein, MD, William Beaumont Army Medical Center, El Paso, TX  
*\*Presented by CPT Phillip R. Schneider MD*

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

- 4:12 pm Orthopaedic And Plastic Surgery Training Differences Manifested In The Analysis Of Distal Radius Fracture Fixation  
Logan R. Koehler, MD, William Beaumont Army Medical Center, El Paso, TX
- 4:18 pm Distal Ulnar Hounsfield Units Accurately Predicts Future Fragility Fracture Risk  
LT Theodora C. Dworak, MD, Walter Reed National Military Medical Center, Bethesda, MD
- 4:24 pm Discussion
- 4:30 pm Acute Transhumeral Replantation For Traumatic Amputation: Early Promising Results  
LTC Joseph F. Alderete Jr., MD, Brooke Army Medical Center, Fort Sam Houston, TX
- 4:36 pm Ulnar Collateral Ligament Repair following Elbow Dislocation  
Aaron Wey, MD, William Beaumont Army Medical Center, El Paso, TX
- 4:42 pm Radial Head Arthroplasty In The Young High Demand Military Servicemember With Minimum 2-Year Follow-Up  
CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX
- 4:48 pm Inaccuracy In Diagnosis And Inefficiency Of Management Of Orthopaedic Injuries By Emergency Medicine Physicians  
CPT Nicholas A. Kusnezov, MD, William Beaumont Army Medical Center, El Paso, TX
- 4:54 pm Discussion
- 5:00 pm **Scientific E-Poster Session**  
*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*  
Poster presenters will be available to answer questions.

## Wednesday, December 14 Warren Kadrmas Memorial Sports Day

- 6:30 am **Scientific E-Poster Session**  
*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*  
Poster presenters will be available to answer questions.

### Symposium 4: Sports - Knee

Moderator: CDR Lance E. LeClere, MD, US Naval Academy, Annapolis, MD

- 7:00 am ACL Surgery, Where We've Been, Where We're Going  
Robert T. Burks, MD, University of Utah Health Sciences Center, Salt Lake City, UT
- 7:25 am Discussion

### General Session 4: Sports - Knee

Civilian Moderator: Robert T. Burks, MD, University of Utah Health Sciences Center, Salt Lake City, UT

Military Moderator: CDR Lance E. LeClere, MD, US Naval Academy, Annapolis, MD

- 7:30 am Acute Changes In Serum Biomarkers Of Collagen Turnover And Metabolism Following Anterior Cruciate Ligament Injury  
Kenneth L. Cameron, PhD, MPH, ATC, Keller Army Hospital, West Point, NY
- 7:36 am Epidemiology and Risk Factors for Failed Meniscal Repair in a Military Population  
CPT Alaina M. Brelin, MD, Walter Reed National Military Medical Center, Bethesda, MD  
\*Presented by LCDR George C. Balazs, MD
- 7:42 am Return To Duty After ACL Reconstruction: Are We Getting Them Back?  
MAJ Jay B. Cook, MD, Winn Army Community Hospital, Fort Stewart, GA
- 7:48 am Moderate Return To High Impact Function After Fresh Osteochondral Allograft Transplantation For Medium To Large Chondral Defects Of The Knee  
MAJ Dimitri M. Thomas, MD, Munson Army Health Center, Fort Leavenworth, KS
- 7:54 am Discussion
- 8:00 am Predictors Of Subsequent Injury After ACL Reconstruction In Children And Adolescents  
Captain Travis J. Dekker, MD, Duke University, Durham, NC
- 8:06 am Interference Screw Position Relative To A Bone Patellar Tendon Bone Anterior Cruciate Ligament Graft In The Tibia: Is A Cortical Or Cancellous Graft Screw Interface Stronger?  
MAJ Nathan A. Marsh, MD, Keller Army Community Hospital, West Point, NY
- 8:12 am Avoiding Graft Tunnel Mismatch In Allograft Anterior Cruciate Ligament Reconstruction: The Blumensaat's Line Method  
LCDR Patrick W. Joyner, MD, Naval Medical Center Portsmouth, Portsmouth, VA
- 8:18 am Passive Anterior Tibial Subluxation in the Setting of ACL Injury: A Comparative Analysis of Ligament Deficient States  
LCDR Lucas McDonald, MD, MPH, Naval Medical Center San Diego, San Diego, CA
- 8:24 am Discussion
- 8:30 am **Break with Exhibitors** *Grand Sierra Ballroom*
- Rapid Fire Session 2A: Shoulder Instability** *Castle Peak A*  
Moderator: MAJ Stephen A. Parada, MD, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA
- 8:50 am Radiographic Characterization Of Posterior Bone Loss Using Computed Tomography And Three-Dimensional Printed Models With Recurrent Posterior Shoulder Instability  
CAPT (Ret) Matthew T. Provencher, MD, The Steadman

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

Clinic, Vail, CO

\*Presented by George Sanchez, BS

8:54 am Incidence and Outcomes of Open Biceps Tenodesis in Patients 30 and Younger  
CPT Alaina M. Brelin, MD, Walter Reed National Military Medical Center, Bethesda, MD  
\*Presented by LCDR George C. Balazs, MD

8:58 am Low Risk Of Recurrence After Posterior Labral Repairs In An High-Risk US Military Population  
CPT Stephen Chan, MD, William Beaumont Army Medical Center, El Paso, TX

9:02 am Discussion

9:05 am Prospective Analysis Of Imaging And Surgical Findings In Surgical Instability: A Matched Cohort Analysis Of Patients With Anterior Versus Posterior Instability  
CAPT (Ret) Matthew T. Provencher, MD, The Steadman Clinic, Vail, CO

9:09 am Anterior Anchor Position Is Not Associated With Higher Failure Rate After Isolated Type II Slap Repair  
CPT William Arroyo, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Kenneth Heida, MD

9:13 am Open Versus Arthroscopic Anterior Shoulder Stabilization in the Collision and Contact Athlete: A Systematic Review  
CPT Alaina M. Brelin, MD, Walter Reed National Military Medical Center, Bethesda, MD  
\*Presented by LCDR George C. Balazs, MD

9:17 am Discussion

## **Rapid Fire Session 2B: Young Adult Hip Preservation Session**

*Castle Peak B*

Moderators: LCDR Brian T. Barlow, MD, Naval Medical Center San Diego, San Diego, CA & LCDR Terrence D. Anderson, MD, Walter Reed National Military Medical Center, Bethesda, MD

8:50 am Defining New Measures Of Debility In Patients With Femoroacetabular Impingement Syndrome  
Maj Andrew J. Sheehan, MD, San Antonio Military Medical Center, San Antonio, TX

8:54 am Hip Arthroscopy For Femoroacetabular Impingement In A Military Cohort: Short And Long Term Outcomes  
Captain Sarah K. Stewart, MBChB, Frimley Park Hospital, Surry, UK

8:58 am Labral Hypertrophy Is Associated With Subtle Hip Dysplasia In An Impingement Cohort  
MAJ Nathan A. Marsh, MD, Keller Army Community Hospital, West Point, NY

9:02 am Discussion

9:05 am The Vacuum Sign Of The Hip: A Radiographic Indicator Of Chondrolabral Disruption  
Maj Matthew C. Mai, MD, Eglin Air Force Base, Valparaiso, FL

9:09 am Safe Operation Of The Brake Pedal Following Arthroscopic Hip Surgery  
LCDR George C. Balazs, MD, Walter Reed National Military Medical Center, Bethesda, MD

9:13 am Functional Outcomes Of Arthroscopically Treated Femoroacetabular Impingement In An Active Duty Population  
CPT Griffin M. Biedron, MD, William Beaumont Army Medical Center, El Paso, TX

9:17 am Discussion

## **Rapid Fire Session 2C: Sports Knee *Monument Peak B***

Moderator: LtCol Brett C. Anderson, MD, United States Air Force Academy, Colorado Springs, CO

8:50 am Septic Arthritis after Anterior Cruciate Ligament Reconstruction: Does Graft Retention Portend Increased Risk of Surgical Revision?  
CPT William Arroyo, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Kenneth Heida, MD

8:54 am Platelet Rich Plasma: No Significant Early Improvements In A Military Population After Intra-Articular Knee Injection  
MAJ Anthony M. Barcia, MD, Combat Support Hospital/Brian Allgood Army Community Hospital, Seoul, Korea

8:58 am Functional Outcomes, Complications, And Re-Rupture Following Patellar Tendon Repair In A Young Active Population With Intense Lower Extremity Demands  
CPT Phillip R. Schneider, MD, William Beaumont Army Medical Center, El Paso, TX

9:02 am Discussion

9:05 am Contemporary Surgical Trends In The Management Of Symptomatic Meniscal Tears Among United States Military Servicemembers: 2010-2015  
CPT Timothy B. Pekari, MPAS, William Beaumont Army Medical Center, El Paso, TX

9:09 am Return To Play After ACL Injury In The NFL, Which Team Does It Best?  
CPT Emmanuel D. Eisenstein, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Nicholas Rensing, MD

9:13 am Fascia Iliaca Blockade With And Without Liposomal Bupivacaine For Perioperative Pain Management During Hip Arthroscopy  
CPT Richard L. Purcell, MD, Walter Reed National Military Medical Center, Bethesda, MD  
\*Presented by LT Daniel W. Griffin, MD

9:17 am Discussion

## **Rapid Fire Session 2D: Miscellaneous *Pyramid Peak***

Moderator: COL Steven J. Svoboda, MD, Keller Army Community Hospital/United States Military Academy, West Point, NY

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

8:50 am Occupational Outcomes Of Reconstructive Surgery For Adult Acquired Flatfoot Deformity  
LT Michael T. Finnern, MD, Tripler Army Medical Center, Honolulu, HI

8:54 am Anatomically Contoured Anterior Plating For Isolated Tibiotalar Arthrodesis: A Systematic Review  
CPT Nicholas A. Kusnezov, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Richard Van Tienderen, DO

8:58 am New Technique For Tibiotalar Arthrodesis Using A New Intramedullary Nail Device: A Cadaveric Study  
CPT Emmanuel D. Eisenstein, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Nicholas Rensing, MD

9:02 am Discussion

9:05 am Return To Sport Following Intramedullary Fixation Of Jones Fractures In A Young, Active Population  
Logan R. Koehler, MD, William Beaumont Army Medical Center, El Paso, TX

9:09 am Efficacy Of Map3 Cellular Allogeneic Bone Graft In Foot And Ankle Arthrodesis Procedures  
Captain Travis J. Dekker, MD, Duke University, Durham, NC

9:13 am Radiographic Outcomes Following Intraosseous Sliding Osteotomy Plate For Hallux Valgus  
LT Theodora C. Dworak, MD, Walter Reed National Military Medical Center, Bethesda, MD

9:17 am Discussion

## Symposium 5: Sports Foot and Ankle Injuries

Moderator: LTC Paul M. Ryan, MD, Tripler Army Medical Center, Honolulu, HI

9:25 am Management Of Osteochondral Lesions Of The Talus Annunziato "Ned" Amendola, MD, Duke Sports Science Institute, Durham, NC

9:50 am Discussion

9:55 am **Break with Exhibitors** *Grand Sierra Ballroom*

## General Session 5: Sports Foot and Ankle Injuries

Civilian Moderator: Annunziato "Ned" Amendola, MD, Duke Sports Science Institute, Durham, NC

Military Moderator: LTC Paul M. Ryan, MD, Tripler Army Medical Center, Honolulu, HI

10:15 am **Norman T. Kirk Award**  
Early Versus Delayed Weightbearing After Microfracture For Osteochondral Lesions Of The Talus: A Prospective Randomized Trial  
CPT James B. Deal, MD, Tripler Army Medical Center, Honolulu, HI

10:21 am The Epidemiology Of College Football Injuries And Their Impact On Performance And Gameplay In The National Football League (NFL): 2203 Athletes From 2009-2015

CAPT (Ret) Matthew T. Provencher, MD, The Steadman Clinic, Vail, CO

10:27 am Injury Characteristics of Low-Energy Lisfranc Injuries Compared with High-Energy Injuries  
LT Christopher H. Renninger, MD, Naval Medical Center San Diego, San Diego, CA

10:33 am Comparative Outcomes For Treatment Of Articular Cartilage Lesions In The Ankle With Juvenile Particulated Cartilage Allograft: Open Versus Arthroscopic Treatment  
CPT Robert C. Turner, MD, Tripler Army Medical Center, Honolulu, HI

10:39 am Discussion

10:45 am Low Risk For Local And Systemic Complications After Primary Repair Of 1626 Achilles Tendon Ruptures  
CPT Nicholas Rensing, MD, William Beaumont Army Medical Center, El Paso, TX

10:51 am Rates Of Secondary Operations With Use Of Particulated Juvenile Cartilage In The Treatment Of Talus Osteochondral Lesions  
Captain Travis J. Dekker, MD, Duke University, Durham, NC

10:57 am Comparison Of MRI And Operative Findings In Peroneal Tendon Disorders In A Military Population  
CPT Shawn E. Boomsma, DO, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

11:03 am Treatment Of Proximal Fifth Metatarsal Fractures And Re-Fractures In Elite Athletes With Plantar Plating  
LT Ronald J. Mitchell, MD, Houston Methodist Hospital, Houston, TX

11:09 am Discussion

## CDR Michael T. Mazurek Clinician Scholar Award Presentation

Moderator: Lt Col Mark A. Slabaugh, MD, United States Air Force Academy, Colorado Springs, CO

11:15 am **CDR Michael T. Mazurek Clinician Scholar Award Presentation**  
MAJ Chad A. Krueger, MD, Womack Army Medical Center

## 11:25 am SOMOS Luncheon – Industry Presentations

\*Not for CME Credit

**Bioventus** *Papoose Peak*

*Spotlight on Hyaluronic Acid* by Vinod Dasa, MD

**Stryker Orthopaedics** *Emigrant Peak A & B*

*Revision Knee, using Triathlon Revision Cone Augments* by Nic Aldrich

## 12:30 pm Scientific E-Poster Session

*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*

Poster presenters will be available to answer questions.

## 2:00 pm Multimedia Education Session

*Grand Sierra Ballroom Pre-Function*

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

## Symposium 6: Sports – Pediatric Sports Injuries

Moderator: Lt Col Matthew R. Schmitz, MD, FAAP, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX

3:30 pm Anatomy Of The Pediatric/Adolescent Knee, And Avoiding Physeal Injury During Ligament Reconstruction?  
Kevin G. Shea, MD, St. Lukes Clinic Orthopedics, Boise, ID

3:55 pm Discussion

## General Session 6: Sports – Sports Injuries

Civilian Moderator: Kevin G. Shea, MD, St. Lukes Clinic Orthopedics, Boise, ID

Military Moderator: Lt Col Matthew R. Schmitz, MD, FAAP, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX

4:00 pm Incidence Of Anterolateral Ligament Tears In The ACL Deficient Knee - A MRI Study In A Community Population  
Lt Col Mark A. Slabaugh, MD, United States Air Force Academy, Colorado Springs, CO

4:06 pm Second Fracture: A Risk Factor for Anterior Cruciate Ligament Reconstruction Failure?  
Capt Christopher L. Gaunder, MD, San Antonio Military Medical Center, San Antonio, TX

4:12 pm Second Generation Autologous Chondrocyte Implantation In The Patella: Short-Term Pain Relief And Functional Outcomes Among U.S. Army Servicemembers  
MAJ Brian R. Waterman, MD, William Beaumont Army Medical Center, El Paso, TX

4:18 pm Open Reduction Internal Fixation of Isolated Chondral Fragments Without Osseous Attachment in the Knee: A Case Series  
LCDR James Bailey, MD, Duke University, Durham, NC

4:24 pm Discussion

4:30 pm Classification And Analysis Of Attritional Glenoid Bone Loss In Recurrent Anterior Shoulder Instability  
CAPT (Ret) Matthew T. Provencher, MD, The Steadman Clinic, Vail, CO

4:36 pm Reliability Of A Simple Calculation For Measuring Glenoid Bone Loss On 3D Computed Tomography (CT) Scans  
MAJ Stephen A. Parada, MD, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

4:42 pm Biceps Tenodesis Vs. Repair For Type II SLAP Tears In Patients Less Than 30 Years Old  
LT Dominic Van Nielen, MD, Naval Medical Center Portsmouth, Portsmouth, VA

4:48 pm Evaluating Glenoid Bone Reaction To Soft Anchors Used For Shoulder Labral Repairs  
LT Trevor M. Tompane, MD, MPH, Naval Medical Center San Diego, San Diego, CA

4:54 pm Discussion

5:00 pm **Break**

## Current Concepts

Moderator: Lt Col R. Judd Robins, MD, United States Air Force Academy, Colorado Springs, CO

5:10 pm Individualizing Rehabilitation in Postoperative Care  
John M. Tokish, MD, Steadman Hawkins of the Carolinas, Greenville, SC

5:35 pm Discussion

## Joint-Service Research Initiative

Moderator: MAJ Jonathan F. Dickens, MD, Walter Reed National Military Medical Center, Bethesda, MD

5:40 pm History  
John M. Tokish, MD, Steadman Hawkins of the Carolinas, Greenville, SC

5:43 pm Where We Are Now  
MAJ Jonathan F. Dickens, MD, Walter Reed National Military Medical Center, Bethesda, MD

5:46 pm Panel Discussion  
Brett A. Freedman, MD, Mayo Clinic, Rochester, MN  
Timothy C. Mauntel, PhD, ATC, Walter Reed National Military Medical Center, Bethesda, MD  
LTC Benjamin K. Potter, MD, Walter Reed National Military Medical Center, Bethesda, MD  
CAPT (Ret) Matthew T. Provencher, MD, The Steadman Clinic, Vail, CO  
John M. Tokish, MD, Steadman Hawkins of the Carolinas, Greenville, SC

## Thursday, December 15

6:00 am **Service Breakouts**  
Air Force *Silver Peak*  
Army *Alpine Ballroom*  
Navy *Monument Peak A*

## Symposium 7: Hand

Moderator: Maj Peter C. Rhee, DO, MS, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX

7:00 am Bone and Cartilage Tumors of the Upper Limb: What Everyone Should Know  
Peter M. Murray, MD, Mayo Clinic, Jacksonville, FL

7:25 am Discussion

## General Session 7: Hand

Civilian Moderator: Peter M. Murray, MD, Mayo Clinic, Jacksonville, FL  
Military Moderator: Maj Peter C. Rhee, DO, MS, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX

7:30 am Can Wrist Computed Tomography Scans Accurately Predict Femoral Neck Osteoporosis?  
LT Theodora C. Dworak, MD, Walter Reed National Military Medical Center, Bethesda, MD

7:36 am The Effect Of Skin Pigmentation On Clinical Exam For Determination Of Limb Ischemia In Healthy Controls

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

MAJ Elizabeth Polfer, MD, Walter Reed National Military Medical Center, Bethesda, MD

7:42 am Outcomes Following Carpal Tunnel Release In Patients Receiving Workers' Compensation  
CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Richard Van Tienderen, DO

7:48 am The Boxer's Fracture: Is Reduction With Splint Immobilization Necessary? A Systematic Review  
CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX

7:54 am Discussion

8:03 am Epidemiology Of Gunshot Wounds To The Hand  
Alexander J. Hutchinson, BS, Texas Tech University Health Sciences Center, El Paso, TX  
\*Presented by CPT Alicia M. Unangst, DO

8:09 am Use Of BMP In Scaphoid Nonunion. A Systemic Review  
CPT Paul L. Lanier, DO, William Beaumont Army Medical Center, El Paso, TX

8:15 am Anatomic Variation Of The Radial Artery Associated With Clinically Significant Ischemia  
MAJ Elizabeth Polfer, MD, Walter Reed National Military Medical Center, Bethesda, MD  
\*Presented by MAJ Jennifer Sabino, MD

8:21 am Discussion

8:30 am **Refreshment Break** *Grand Sierra Ballroom Pre-Function*

## Rapid Fire Session 3A: Hand *Castle Peak A*

Moderators: LtCol Evan M. Jones, MD, Elmendorf Air Force Base, Anchorage, AK & Lt. Col. Paul D. 'Chip' Gleason, MD, Wright Patterson Air Force Base, Dayton, OH

8:45 am Clinical Outcomes Following Posterior Interosseous Nerve Neurectomy For Intractable Wrist Pain: A Systematic Review  
CPT John Dunn, MD, William Beaumont Army Medical Center, El Paso, TX  
\*Presented by CPT Paul L. Lanier, DO

8:49 am Carpometacarpal Fracture Dislocations In The Military: A Retrospective Review  
LCDR Robert O. Boatwright, MD, Naval Medical Center Portsmouth, Portsmouth, VA

8:53 am Utility Of Wrist Computed Tomography For Population-Based Osteoporosis Screening  
LT Theodora C. Dworak, MD, Walter Reed National Military Medical Center, Bethesda, MD

8:57 am Discussion

9:00 am Should Arthroscopic Treatment Of Occult Dorsal Wrist Ganglions Be The Gold Standard?  
Major Kevin P. Krul, MD, Tripler Army Medical Center, Honolulu, HI

9:04 am Fracture Risk in Ulnohumeral Arthroplasty - How Does Fenestration Size Influence Structural Integrity?

LT Patrick B. Morrissey, MD, Naval Medical Center San Diego, San Diego, CA  
\*Presented by LT Ryan C. Myers, MD

9:08 am Distal Ulnar Hounsfield Units Accurately Reflect Forearm Bone Mineral Density  
LT Theodora C. Dworak, MD, Walter Reed National Military Medical Center, Bethesda, MD

9:12 am Discussion

## Rapid Fire Session 3B: Spine *Castle Peak B*

Moderators: Lt. Col. James Dunlap, MD, Wright Patterson Air Force Base, Dayton, OH & Cdr. David E. Gwinn, MD, Walter Reed National Military Medical Center, Bethesda, MD

8:45 am Can S2-Alar-Iliac (S2ai) Screws Be Placed Accurately Without Fluoroscopy?  
MAJ Daniel G. Kang, MD, Madigan Army Medical Center, Tacoma, WA  
\*Presented by CPT Christopher Chen, MD

8:49 am Complications And Re-Operation Rate Following Cervical Lateral Mass Screw Fixation  
MAJ Daniel G. Kang, MD, Madigan Army Medical Center, Tacoma, WA  
\*Presented by CPT Christopher Chen, MD

8:53 am Cervical Total Disc Arthroplasty Versus Cervical Fusion For The Treatment Of Cervical Spondylosis: Comparative Outcomes And Impact On Military Aviation Waiverability  
LTC John R. Reaume, MD, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

8:57 am Discussion

9:00 am Epidemiology Of Lumbago In United States Military Nurses  
CPT Mitchell C. Harris, MD, Tripler Army Medical Center, Honolulu, HI

9:04 am Safety And Efficacy Of Using Ultrasound Bone Scalpel For Anterior Cervical Corpectomy  
CPT Sally Ann Corey, DO, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

9:08 am Direct Dural Wound Vacuum Therapy For Recalcitrant Posterior Instrumented Spinal Fusion: A Case Report And Review Of The Literature  
LT Andrew J. Wright, MD, Naval Medical Center San Diego, San Diego, CA

9:12 am Discussion

## Rapid Fire Session 3C: Shoulder Reconstruction/Pediatric *Monument Peak B*

Moderators: MAJ Kelly G. Kilcoyne, MD, William Beaumont Army Medical Center, El Paso, TX & MAJ E'Stephan J. Garcia, MD, William Beaumont Army Medical Center, El Paso, TX

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

8:45 am Radiographic Characterization of the B2 Glenoid: The Effect of Computed Tomographic Axis Orientation  
Maj Dane H. Salazar, MD, Washington University, St. Louis, MO

8:49 am Radiographic Characterization of the B2 Glenoid: Is Inclusion of the Entirety of the Scapula Necessary?  
Maj Dane H. Salazar, MD, Washington University, St. Louis, MO

8:53 am Functional Outcomes Following Lateral Ulnar Collateral Ligament Reconstruction For Symptomatic Posterolateral Rotatory Instability In An Athletic Population  
CPT Marnia J. Rodriguez, MD, William Beaumont Army Medical Center, El Paso, TX

8:57 am Discussion

9:00 am Volumetric Considerations For Valving Long-Arm Casts: The Utility Of The Cast Spacer  
CPT K. Aaron Shaw, DO, Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA

9:04 am Biomechanical Analysis of Retrograde Flexible Intramedullary Nail Constructs in a Simulated Pediatric Femur Fracture Model  
Anthony I. Riccio, MD, Texas Scottish Rite Hospital for Children, Dallas, TX

9:08 am Cast Saw Blades: Does A Particular Blade Reduce The Risk Of Thermal Injury?  
Capt Fortune J. Egbulefu, MD, San Antonio Military Medical Center, San Antonio, TX

9:12 am Discussion

**Rapid Fire Session 3D: Adult Reconstruction** *Pyramid Peak*  
Moderator: Maj Robert J. McGill, MD, Joint Base Andrews, Fort Belvoir, VA

8:45 am Minimum 25 Year Follow Up Of A Cementless Anatomic Femoral Design: As Good As A Cemented Fixation?  
CPT Sean E. Slaven, MD, Walter Reed National Military Medical Center, Bethesda, MD

8:49 am Modified Frailty Index Is An Effective Risk Assessment Tool In Primary Total Knee Arthroplasty  
MAJ Jaime L. Bellamy, DO, Emory University Orthopaedics & Spine Hospital, Atlanta, GA

8:53 am Can We Eliminate Pre-Operative Flexion Contracture As A Contraindication To Unicompartamental Knee Arthroplasty?  
CPT Richard L. Purcell, MD, Walter Reed National Military Medical Center, Bethesda, MD  
\*Presented by LT Daniel W. Griffin, MD

8:57 am Discussion

9:00 am Cost Savings in Orthopaedic Total Joint Arthroplasty Care  
LT Daniel J. Houskamp, MD, Naval Medical Center San

Diego, San Diego, CA  
\*Presented by LT Nicholas H. Lake, MD

9:04 am Kinematic Total Knee Arthroplasty Using Asymmetric Components With Neutral Mechanical Alignment: The Best Of Both Worlds?  
LCDR Brian T. Barlow, MD, Naval Medical Center San Diego, San Diego, CA

9:08 am Total Knee Arthroplasty for Posttraumatic Osteoarthritis in Military Personnel Under Age 50  
Running Title: Arthroplasty for PTOA  
Capt Andrew S. Murtha, MD, San Antonio Military Medical Center, Fort Sam Houston, TX

9:12 am Discussion

## AAOS Report & Business Meeting

Moderator: Lt Col Mark A. Slabaugh, MD, United States Air Force Academy, Colorado Springs, CO

9:20 am **AAOS Update**  
Gerald R. Williams Jr., MD, American Academy of Orthopaedic Surgeons President, The Rothman Institute, Philadelphia, PA

9:40 am **Business Meeting**

9:50 am **Refreshment Break** *Grand Sierra Ballroom Pre-Function*

## Symposium 8: Shoulder

Moderator: LCDR James E. Hammond, MD, Portsmouth Naval Hospital, Suffolk, VA

10:00 am Shoulder Arthroplasty: Past, Present, and Future  
Gerald R. Williams Jr., MD, The Rothman Institute, Philadelphia, PA

10:25 am Discussion

## General Session 8: Shoulder

Civilian Moderator: Gerald R. Williams Jr., MD, The Rothman Institute, Philadelphia, PA

Military Moderator: LCDR James E. Hammond, MD, Portsmouth Naval Hospital, Suffolk, VA

10:30 am Arthroscopic Versus Open Anterior Shoulder Stabilization: A Prospective Randomized Clinical Trial With 14 Year Follow-up  
CPT John D. Johnson, DO, Tripler Army Medical Center, Honolulu, HI

10:36 am Evaluation Of The Instability Severity Index Score In Predicting Failure Following Arthroscopic Bankart Surgery In An Active US Military Population  
CPT Andrew Chan, MD, William Beaumont Army Medical Center, El Paso, TX

10:42 am Failure And Complication Rates Of Proximal Biceps Tenodesis With Unicortical Suture Button In The Early Postoperative Period  
MAJ Jay B. Cook, MD, Winn Army Community Hospital, Fort Stewart, GA

# Scientific Program Alpine Ballroom, Unless Otherwise Specified

- 10:48 am A Prospective Analysis Of Patients With Anterior Versus Posterior Shoulder Instability: A Matched Cohort Examination And Surgical Outcomes Analysis Of 198 Patients  
CAPT (Ret) Matthew T. Provencher, MD, The Steadman Clinic, Vail, CO  
\*Presented by George Sanchez, BS
- 10:54 am Discussion
- 11:00 am Mid-Term Radiographic Progression of Arthritis in Shoulders with Degenerative Arthritis Rotator Cuff Tears  
Maj Dane H. Salazar, MD, Washington University, St. Louis, MO
- 11:06 am Surgical Outcomes Following Inpatient Versus Outpatient Total Shoulder Arthroplasty: Characterizing The Patient Demographic  
Adam R. Streit, DO, William Beaumont Army Medical Center, El Paso, TX
- 11:12 am A Comparison Of "On-Track" And "Off-Track" Assessment With Clinical Failure In A 13-Year Follow-Up Of Open Versus Arthroscopic Shoulder Stabilizations  
CPT Liang Zhou, MD, Tripler Army Medical Center, Honolulu, HI
- 11:18 am All Arthroscopic Treatment Of Anterior Shoulder Instability In The Setting Of Sub-Critical Glenoid Bone Loss  
CPT(P) Michael A. Donohue, MD, Walter Reed National Military Medical Center, Bethesda, MD
- 11:24 am Discussion
- 11:30 am **Scientific E-Poster Session**  
*Castle Peak A, Castle Peak B, Monument Peak, B Pyramid Peak*  
Poster presenters will be available to answer questions.
- 12:30 pm **Multimedia Education Session**  
*Grand Sierra Ballroom Pre-Function*

## Friday, December 16

- 6:30 am **Scientific E-Poster Session**  
*Castle Peak A, Castle Peak B, Monument Peak B, Pyramid Peak*  
Poster presenters will be available to answer questions.
- Symposium 9: Adult Reconstruction**  
Moderator: LTC Creighton Tubb, MD, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX
- 7:00 am Reconstructive Challenges In Revision Total Hip Arthroplasty  
Wael K. Barsoum, MD, Cleveland Clinic, Cleveland, OH

- 7:25 am Discussion

### General Session 9: Adult Reconstruction

Civilian Moderator: Wael K. Barsoum, MD, Cleveland Clinic, Cleveland, OH  
Military Moderator: LTC Creighton Tubb, MD, San Antonio Military Medical Center, JBSA-Fort Sam Houston, TX

- 7:30 am Effect Of Surgical Approach And Intraoperative Imaging On Acetabular Component Alignment In Total Hip Arthroplasty  
CAPT Sarah N. Pierrie, MD, Carolinas Medical Center, Charlotte, NC
- 7:36 am The Effectiveness Of Combined Thrombin-Collagen And Autologous Platelet-Rich Plasma In Total Hip Arthroplasty, A Prospective, Randomized Controlled Trial  
Eric N. Bowman, MD, MPH, Campbell Clinic, Memphis, TN  
\*Presented by Daniel B. Wells, MD
- 7:42 am Use Of Fluoroscopy In Direct Anterior Total Hip Arthroplasty: Technique, Radiation Exposure, And Fluoroscopy Time During The Learning Curve  
Maj Andrew S. Malin, MD, Eglin Air Force Base, Valparaiso, FL  
\*Presented by Maj Matthew C. Mai, MD
- 7:48 am Comparison Of Wound Complications And Deep Infections With Direct Anterior And Posterior Total Hip Arthroplasty Approaches In Obese Patients  
CPT Richard L. Purcell, MD, Walter Reed National Military Medical Center, Bethesda, MD
- 7:54 am Discussion
- 8:00 am Liposomal Bupivacaine in Total Hip Arthroplasty: Do the Results Justify the Cost?  
Capt Jason A. Beachler Sr., MD, San Antonio Military Medical Center, Fort Sam Houston, TX
- 8:06 am Utility Of Intraoperative Fluoroscopic Positioning Of THA Components  
CPT Christopher M. Belyea, MD, MBA, Tripler Army Medical Center, Honolulu, HI
- 8:12 am Sonication Of Arthroplasty Implants Improves The Diagnostic Accuracy Of Periprosthetic Joint Infection Cultures  
Major (Ret) Brian A. Klatt, MD, University of Pittsburgh, Pittsburgh, PA
- 8:18 am Modified Frailty Index Is An Effective Risk Assessment Tool In Primary Total Hip Arthroplasty  
MAJ Jaime L. Bellamy, DO, Emory University Orthopaedics & Spine Hospital, Atlanta, GA
- 8:24 am Discussion
- Symposium 10: Spine**  
Moderator: Lt. Col. James Dunlap, MD, Wright Patterson Air Force Base, Dayton, OH



# Scientific Program Alpine Ballroom, Unless Otherwise Specified

8:30 am Surgical Treatment of Subaxial Deformities  
James D. Kang, MD, Brigham and Women's Hospital,  
Boston, MA

8:55 am Discussion

9:00 am **Refreshment Break** *Grand Sierra Ballroom Pre-Function*

## **General Session 10: Spine**

Civilian Moderator: James D. Kang, MD, Brigham and Women's  
Hospital, Boston, MA

Military Moderator: Lt. Col. James Dunlap, MD, Wright Patterson Air  
Force Base, Dayton, OH

9:15 am Does Single- Versus Two-Stage Pedicle Subtraction  
Osteotomy In Spinal Deformity Surgery Influence  
Perioperative Complications?  
MAJ Daniel G. Kang, MD, Madigan Army Medical Center,  
Tacoma, WA

9:21 am Structural Adaptations Of Paraspinal Musculature In  
Active-Duty Marines With Intervertebral Disc  
Degeneration  
ENS Jessica R. Stambaugh, BS, University of California, San  
Diego School of Medicine, San Diego, CA

9:27 am Orthopaedics Versus Neurosurgery: Differences In  
Surgical Outcomes Following Anterior Spinal Fusion  
CPT Tyler Trevino, BS, MS, Texas Tech University Health  
Sciences Center, El Paso, TX  
\*Presented by CPT Alicia M. Unangst, DO

9:33 am Non-Accidental Spinal Trauma In Very Young  
Children: A Nationwide Perspective Over A Seven  
Year Period  
CPT Zackary A. Johnson, MD, Tripler Army Medical Center,  
Honolulu, HI

9:39 am Discussion

9:45 am Subsidence After Transforaminal Lumbar Interbody  
Fusion: Effect On Lumbopelvic Sagittal Alignment  
And Clinical Outcomes  
LCDR Theodore J. Steelman, MD, Walter Reed National  
Military Medical Center, Bethesda, MD

9:51 am Lumbar Disc Space Preparation With Cone Beam-  
Computed Tomography And Navigation: A  
Cadaveric Study  
CPT Richard K. Hurley Jr., MD, San Antonio Military Medical  
Center, JBSA-Fort Sam Houston, TX

9:57 am The Incidence Of Lumbar Disc Herniation In Military  
Helicopter Pilots Versus Matched Controls Over A  
10 Year Period  
CPT James B. Deal, MD, Tripler Army Medical Center,  
Honolulu, HI

10:03 am Diagnosing The Undiagnosed: Osteoporosis In  
Patients Undergoing Lumbar Fusion  
Capt Peter Formby, MD, Walter Reed National Military  
Medical Center, Bethesda, MD  
\*Presented by LCDR Theodore J. Steelman, MD

10:09 am Discussion

10:15 am **Refreshment Break** *Grand Sierra Ballroom Pre-Function*

## **Symposium 11: Tumor**

Moderator: LTC Joseph F. Alderete Jr., MD, San Antonio Military Medical  
Center, JBSA-Fort Sam Houston, TX

10:25 am Current Considerations in Sarcoma Surgery  
R. Lor Randall, MD, Huntsman Cancer Institute, Salt Lake  
City, UT

10:50 am Discussion

## **General Session 11: Tumor**

Civilian Moderator: R. Lor Randall, MD, Huntsman Cancer Institute, Salt  
Lake City, UT

Military Moderator: LTC Joseph F. Alderete Jr., MD, San Antonio Military  
Medical Center, JBSA-Fort Sam Houston, TX

10:55 am The Role Of Surgical Resection In Pelvic Ewing  
Sarcoma: A Retrospective Case Series  
CPT Sean Kelly, MD, Brooke Army Medical Center, Fort Sam  
Houston TX

11:01 am Long Term Results Of Segmental Intercalary  
Replacement Of Long Bones Following Tumor  
Resection And Evolution Of Technique  
LTC Joseph F. Alderete Jr., MD, Brooke Army Medical  
Center, Fort Sam Houston, TX

11:07 am Juxta-Articular Osteoid Osteoma of the Knee: A Case  
Report  
CPT Matti P. Asuma, MD, Madigan Army Medical Center,  
Tacoma, WA

11:13 am Discussion

11:20 am Metastatic Bladder Cancer To The Proximal Femur -  
A Case Report  
CPT Sally Ann Corey, DO, Dwight D. Eisenhower Army  
Medical Center, Fort Gordon, GA

11:26 am Carcinoma Mimicking Sarcoma: A Case of Metastatic  
Myoepithelial Carcinoma  
Capt Tierney A. Shannon, MD, San Antonio Military Medical  
Center, Fort Sam Houston, TX

11:32 am Intravital Vancomycin Powder Reduces Infection Rate  
Following Posterior Spinal Fusion For Spinal Tumors  
MAJ Daniel G. Kang, MD, Madigan Army Medical Center,  
Tacoma, WA

11:38 am Discussion

11:45 am **Multimedia Education Session**  
*Grand Sierra Ballroom Pre-Function*

## STATION A Castle Peak A

### FOOT & ANKLE

**Poster 1:** Isolated Subtalar Arthrodesis For Avascular Necrosis Of The Talus

*Captain Travis J. Dekker, MD, Duke University, Durham, NC*

**Poster 2:** Characterization And Incidence Of Missed Posterior Malleolus Fractures

*CPT Shawn Gee, MD, Tripler Army Medical Center, Honolulu, HI  
\* CPT Mitchell C. Harris, MD*

**Poster 3:** Mid-Term Results And Functional Outcomes Of Mini-Open Achilles Tendon Repairs In U.S. Military Service Members  
*CPT Kenneth Heida, MD, William Beaumont Army Medical Center, El Paso, TX*

**Poster 4:** Arthroscopic Debridement And Percutaneous Suture Button Fixation For Treatment Of Chronic Ankle Syndesmosis Injuries In Active Duty Population  
*LT Nicholas P. Perry, MD, Naval Medical Center San Diego, San Diego, CA*

**Poster 5:** Clinical Outcome Following Extracorporeal Shock Wave Therapy For Chronic Plantar Fasciitis  
*CPT Richard L. Purcell, MD, Walter Reed National Military Medical Center, Bethesda, MD*

**Poster 6:** Simple 1-Step Ankle Arthroscopy Distraction  
*CPT Alicia M. Unangst, DO, Fort Bliss, El Paso, TX*

**Poster 7:** Simplified Setup to Achieve Distraction for Toe Arthroscopy  
*CPT Alicia M. Unangst, DO, Fort Bliss, El Paso, TX*

**Poster 8:** Posterior Ankle Arthroscopic Fracture Reduction With Internal Fixation  
*CPT Alicia M. Unangst, DO, Fort Bliss, El Paso, TX*

### INFECTION

**Poster 9:** Necrotizing Infection Of A Closed Proximal Humerus Fracture  
*LT Erica K. Crump, MD, Naval Medical Center San Diego, San Diego, CA*

**Poster 10:** Community-Acquired MRSA Rotator Cuff Pyomyositis And Scapular Osteomyelitis In Immunocompetent Pediatric Patient  
*LT Nicholas P. Perry, MD, Naval Medical Center San Diego, San Diego, CA*

## STATION B Castle Peak B

### ADULT RECONSTRUCTION

**Poster 11:** Dual Mobility Implants are Cost-Saving for Primary THA: A Cost-Utility Analysis Using Direct and Indirect Costs  
*LCDR Brian T. Barlow, MD, Naval Medical Center San Diego, San Diego, CA*

**Poster 12:** Modified Precautions In Posterior Approach THA: Rapid Recovery And Low Dislocation Rates  
*LCDR Brian T. Barlow, MD, Naval Medical Center San Diego, San Diego, CA*

**Poster 13:** Normalization Of Metal Ion Levels After Revising Metal On Polyethylene Bearings In Total Hip Arthroplasty  
*MAJ Jaime L. Bellamy, DO, Emory University Orthopaedics & Spine Hospital, Atlanta, GA*

**Poster 14:** Screening Dental Disease; Do Race/Income Play a Role?  
*Major (Ret) Brian A. Klatt, MD, University of Pittsburgh Department of Orthopaedic Surgery, Pittsburgh, PA*

### BASIC SCIENCE

**Poster 15:** Optimal Protein Intake in Athletes  
*Capt Mathew L. Resnick, DO, Westchester General Hospital/ Tinker AFB, Miami, FL*

### OTHER

**Poster 16:** Iatrogenic Instability Following Hip Arthroscopy: A Series Of Two Cases Treated With Periacetabular Osteotomy  
*Maj Andrew J. Sheean, MD, San Antonio Military Medical Center, San Antonio, TX*

### PEDIATRICS

**Poster 17:** Benign Acute Childhood Myositis –A Rare Cause Of Abnormal Gait  
*LT Gregory W. Hall, MD, Naval Medical Center Portsmouth, Portsmouth, VA*

**Poster 18:** A Case Report of Talocalcaneal Coalition and Subtalar Ganglion Cyst: 5-year Postoperative Follow-up  
*LT Vanna J. Rocchi, DO, Naval Medical Center San Diego, San Diego, CA*

**Poster 19:** Mechanical Testing Of Epiphysiodesis Screws  
*CPT David J. Tennent, MD, San Antonio Military Medical Center, Ft Sam Houston, TX*

### PRACTICE MANAGEMENT/EDUCATION

**Poster 20:** Contact Dermatitis Reaction to 2-Octylcyanoacrylate Following Two Orthopaedic Procedures: A Case Series and Literature Review  
*LT Nicholas H. Lake, MD, Naval Medical Center San Diego, San Diego, CA*

## STATION C Monument Peak

### KNEE

**Poster 21:** Delayed Osteochondral Allograft Due To New Diagnosis Of Ochronosis

*LT Vanna J. Rocchi, DO, Naval Medical Center San Diego, San Diego, CA*

### SHOULDER/ELBOW

**Poster 22:** The Correlation Between CTA, MRA and Arthroscopic Findings in Young Adults with Shoulder Complaints

*Major Oded Hershkovich, MD MHA, Sheba Medical Center, Ramat Gan, Israel*

**Poster 23:** Survey Of Shoulder Arthroplasty Surgeons' Methods For Infection Avoidance

*MAJ Stephen A. Parada, MD, Dwight D. Eisenhower Army Medical Center, Ft Gordon, GA*

### SPINE

**Poster 24:** Thoracic Disc Herniation With Concomitant Lumbar Spinal Stenosis Resulting In Epidural Compression Syndrome In A Renal Transplant Patient

*CPT Anthony T. Mustovich, DO, Dwight D. Eisenhower Army Medical Center, Augusta, GA*

### TRAUMA

**Poster 25:** Understanding the Influence of Malnutrition on Outcomes Following Orthopaedic Trauma: A Systematic Review

*MAJ Jaime L. Bellamy, DO, Emory University Orthopaedics & Spine Hospital, Atlanta, GA*

**Poster 26:** 3D Printing In Orthopaedic Trauma Surgery: A Review Of Current Literature

*Capt George A. Cibulas, PharmD, MD, University of Michigan Department of Orthopaedic Surgery, Ann Arbor, MI*

**Poster 27:** The Use Of Mini Fragment Plates To Decrease The Rate Of Hardware Removal In Clavicles Treated With Open Reduction Internal Fixation

*LT David A. Feaker Jr., DO, Naval Medical Center Portsmouth, Portsmouth, VA*

**Poster 28:** Mechanical Failure of Precice Femoral Lengthening Nail: A Case Report

*LT Wei Wei Wu, MD, Naval Medical Center San Diego, San Diego, CA*

### WAR TRAUMA/MILITARY MEDICINE

**Poster 29:** The Future of Three-Dimensional Printing in Military Orthopaedic Surgery

*Major Abigail A. Johnson, MA (Cantab) MB BS DMCC, Addenbrooke's Hospital, Cambridge, UK*

**Poster 30:** Description Of The Patient's Health Profile Veteran PMC Afghanistan Based On An Assessment Of Post-Traumatic Musculoskeletal Injuries

*LTC Marcin M. Wojtkowski, MD, Institute of Military Medicine, Warsaw, Poland*

## STATION D Pyramid Peak

### SPORTS INJURIES

**Poster 31:** Atlantic Coast Conference Mandatory College Football Medical Observer. A Necessary Addition to the Preexisting Medical Team?

*LCDR James Bailey, MD, Duke University, Durham, NC*

**Poster 32:** Morphologic Distribution Of The Anterior Inferior Iliac Spine In Patients With And Without Hip Impingement: Reliability, Validity, And Relationship To Intraoperative Assessment

*LCDR George C. Balazs, MD, Walter Reed National Military Medical Center, Bethesda, MD*

**Poster 33:** Correlating Blumensaat's Line To Native Acl Length For Graft Length Determination In ACL Reconstruction

*LT Alanna B. Balboni, MD, Naval Medical Center Portsmouth, Portsmouth, VA*

**Poster 34:** Retrospective Analysis Of Hip Arthroscopy Patients To Analyze Most Frequently Encountered Complications In The Military Population

*LCDR Andrew B. Bernhardson, MD, Naval Medical Center San Diego, San Diego, CA*

**Poster 35:** Has There Been A Paradigm Shift In The Treatment Of SLAP Tears? An Investigation Of SLAP Repairs And Biceps Tenodesis In The Young Active Military Population

*CPT(P) Michael A. Donohue, MD, Walter Reed National Military Medical Center, Bethesda, MD*

**Poster 36:** Clinical Results Of Subpectoral Biceps Tenodesis Using A Single Unicortical Anchor: A Retrospective Review Of Prospective Data

*MAJ Kelly F. Fitzpatrick, DO, Madigan Army Medical Center, Tacoma, WA*

**Poster 37:** Trunk And Lower Extremity Kinematics And Stress Fracture Risk Factors Influence Biomarkers Of Bone Turnover During Cadet Basic Training

*Timothy C. Mauntel, PhD, ATC, Walter Reed National Military Medical Center, Bethesda, MD*

**Poster 38:** Ambulatory Physical Activity During The Initial Training Phase In Naval Commando And Submarine Units

*LTC Shachar D. Shapira, MD, MHA, Israel Defense Force, Medical Corps, Hod Hasharon, Israel*

**Poster 39:** Changes In Testosterone Levels After Arthroscopic Surgery: A Pilot Study

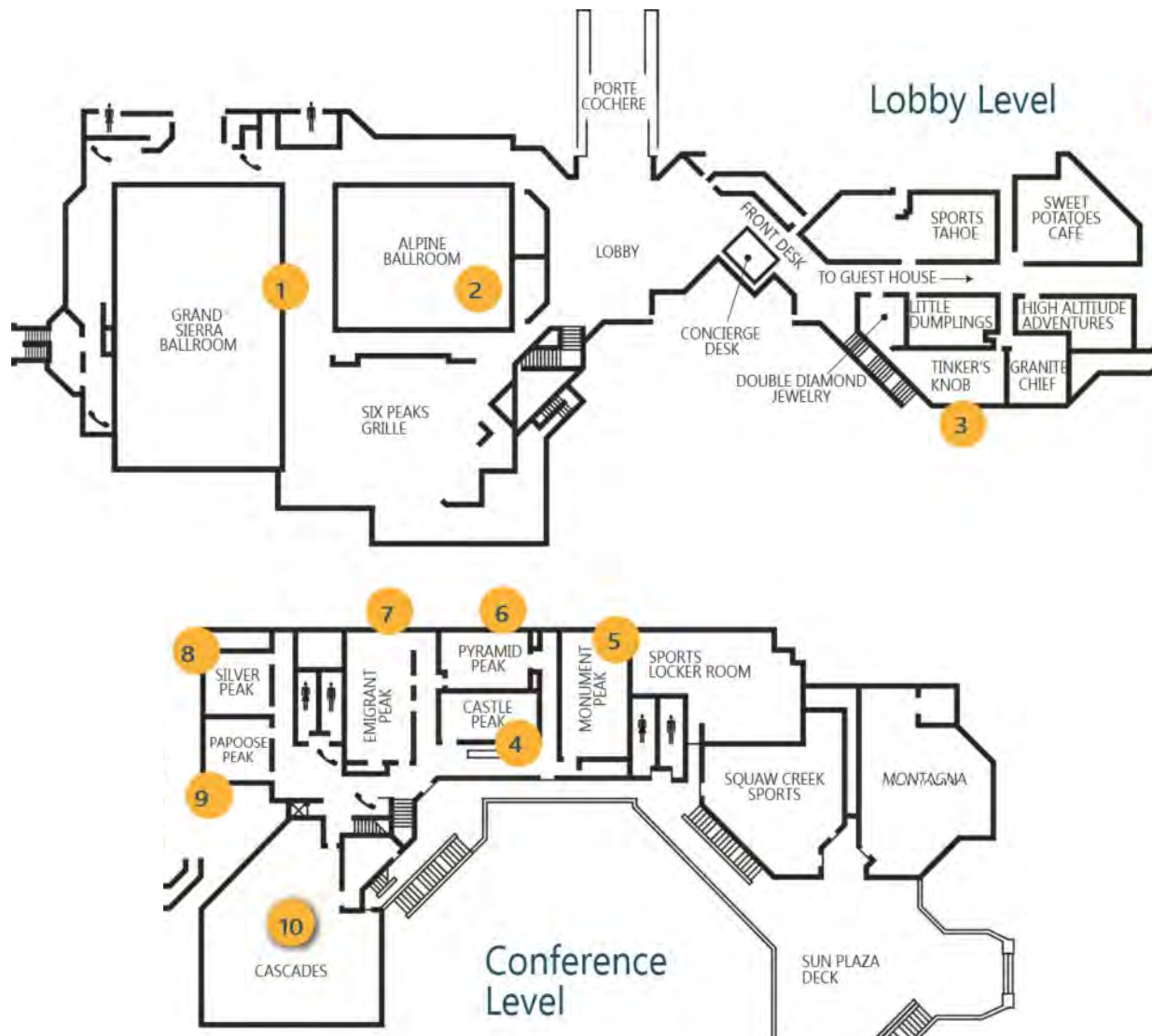
*LT Matthew J. Wilson, MD, Naval Medical Center Portsmouth, Portsmouth, VA*

### HAND/WRIST

**Poster 40:** Pseudoseptic Reaction Following Metacarpophalangeal Pyrocarbon Arthroplasty: Case Report And Operative Treatment

*LT Kyle Mombell, MD, Naval Medical Center San Diego, San Diego, CA*

# You are here



**1 Grand Sierra Ballroom**  
Meeting Registration, Speaker Ready Area, Welcome Reception, Technical Exhibits, Coffee Breaks and Daily Drawing, Multimedia Education Sessions

**2 Alpine Ballroom**  
Scientific Program, Army Service Break-Out Session

**3 Tinker's Knob**  
Board of Directors Meetings

**4 Castle Peak A-B**  
Rapid Fire & E-Poster Sessions A & B

**5 Monument Peak A-B**  
Rapid Fire & E-Poster Session C, Navy Service Breakout, DT Med Surg, LLC Luncheon, Zimmer Luncheon

**6 Pyramid Peak**  
Rapid Fire & E-Poster Session D

**7 Emigrant Peak**  
Stryker Sawbones Lab

**8 Silver Peak**  
Air Force Service Breakout, Legally Mine Luncheon

**9 Papoose Peak**  
DePuy Luncheon, Bioventus Luncheon

**10 Cascades**  
Awards Dinner

## EVENTS NOT PICTURED ON THE MAP

**Ice Rink**  
Curling Tournament, Broomball Tournament

**Nastar Course (On ridge at the top of Shirley Lake - lift access via Gold Coast chair lift traverse)**  
Dual Slalom Event