

2015 POSNA
ANNUAL MEETING
Marriott Marquis, Atlanta, GA
April 29–May 2, 2015

PRELIMINARY PROGRAM

ANNUAL MEETING

April 29–May 2, 2015

Marriott Marquis, Atlanta, GA

Program Chair: Ernest L. Sink, MD

Local Host: Tim Schrader, MD

PRE-COURSE

April 29, 2015

Program Chair: Anthony A. Stans, MD

SUBSPECIALTY DAY

May 1, 2015

Program Chair: Susan A. Scherl, MD



2014 POSNA CORPORATE PARTNERS

POSNA is pleased to acknowledge the companies who have provided financial support throughout the past year. We sincerely appreciate each of these companies for helping POSNA fulfill its goals of providing education and fostering research.

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Diamond Sponsorship Partner



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2015 POSNA ANNUAL MEETING

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Dates to Remember

Early Registration Deadline March 2, 2015
Pre-Registration Closes March 31, 2015
After March 31, 2015 please register on-site

Future Annual Meetings

April 27–30, 2016
Indianapolis, Indiana

May 2–6, 2017
Barcelona, Spain

May 9–12, 2018
Austin, Texas



YOU'RE INVITED...

January 2015

Dear Colleagues,

On behalf of POSNA President Gregory Mencio and the 2015 Program Committee (Ernie Sink, Chair; Todd Milbrandt; Susan Scherl; Tony Stans) it is my great pleasure to invite you to attend the 2015 Annual Meeting of the Pediatric Orthopaedic Society of North America to be held in Atlanta, Georgia on April 29–May 2, 2015. Once again, we have experienced a near record number of submitted abstracts to the Annual Meeting and all 159 podium presentations, 20 posters and 113 e-posters are worth reading or hearing. The meeting agenda is as follows:

- The pre-meeting will begin Wednesday morning with a Pre-Course titled **Treatment of Fractures in Kids: The Next Generation's Perspective**, led by Dr. Tony Stans.
- The first scientific session will begin on Wednesday afternoon and will be followed by the Opening Ceremony Wednesday evening, during which the Kuo, Huene, St. Giles and Humanitarian Awards will be presented.
- Friday afternoon will be devoted to five concurrent subspecialty sessions covering advanced topics in Spine, Hip, Sports, Upper Extremity and Neuromuscular care. Each session has 10 podium presentations that are staggered throughout the afternoon so attendees can move to different sessions to hear either the paper session or the programs put together by Dr. Susan Scherl and the Subspecialty Day Program Chairs.
- We will have lunchtime breakout sessions on Thursday from 12:30 PM to 2:00 PM for POPS, COUR, Research and Practice Management.
- On Thursday afternoon there will be an ICD-10 workshop titled **Specialty Specific ICD-10 Training for Pediatric Orthopaedics** run by KarenZupko & Associates.
- There will be a new member forum on Thursday evening from 5:00 PM–6:30 PM.

This year's local host, Tim Schrader, has been instrumental in identifying our Steel lecturer and venue for our closing reception. POSNA and our local host are excited to welcome you to Atlanta.

The POSNA Annual Meeting has become the premier venue for pediatric orthopaedic research and education presented in a uniquely collegial and social atmosphere. We sincerely hope you will plan to join us for what promises to be an exciting event.

I look forward to seeing you in Atlanta.

Sincerely,



Ernie Sink, MD
2015 POSNA Program Chair

GENERAL MEETING INFORMATION

LEARNING OBJECTIVES

- Objective 1:** Understand at least three recent advances in the treatment of pediatric patients with orthopaedic injuries and/or deformities.
- Objective 2:** Analyze the relative value of specific practices in pediatric orthopaedic care.
- Objective 3:** Implement new or different surgical techniques in their practices to increase effectiveness and safety of operative and non-operative procedures.
- Objective 4:** Care for patients with a better knowledge of the natural history and basic science of pediatric orthopaedic pathology.

ACCREDITATION

This Annual Meeting of the Pediatric Orthopaedic Society of North America has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and POSNA.

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

CONTINUING MEDICAL EDUCATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of **23 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

DISCLAIMER

The material presented at the Annual Meeting has been made available by the Pediatric Orthopaedic Society of North America for educational purposes only. The material is not intended to represent the only, nor necessarily best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty which may be helpful to others who face similar situations.

POSNA disclaims any and all liability for injury or other damages resulting to any individual attending the Annual Meeting and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by physician or any other person.

LANGUAGE

English will be the official language of the POSNA Pre-Course and Annual Meeting.

NO SMOKING POLICY

Smoking is not permitted during any meeting or event.

NO CAMERAS OR VIDEO CAMERAS

Cameras or video cameras may not be used in any portion of the scientific session.

NO REPRODUCTIONS

No reproduction of any kind including audio tapes and videotapes may be made of the presentations at this meeting without the prior written permission of POSNA. POSNA reserves all of its rights to such material and commercial reproduction is specifically prohibited.

PHOTOGRAPHS

Registration and attendance at, or participation in, POSNA activities constitutes an agreement by the registrant to allow POSNA to use and distribute (both now and in the future) the registrant's or attendee's image in POSNA member communications and promotional materials.



welcome

POSNA, along with local host, Tim Schrader, MD, is pleased to welcome you to its 31st Annual Meeting in Atlanta, Georgia. The meeting will take place April 29–May 2, 2015 at the Marriott Marquis, one of the premier hotels located in downtown Atlanta.

The meeting will begin on Wednesday with a trauma-focused Pre-Course chaired by Anthony Stans, MD, titled, **Treatment of Fractures in Kids: The Next Generation's Perspective**. Keynote Speaker James H. Beaty, MD, will start off the morning, followed by presentations by talented up-and-coming POSNA members on stimulating topics, moderated by our seasoned trauma veterans.

Ernest L. Sink, MD, Todd A. Milbrandt, MD, Susan A. Scherl, MD, and Anthony A. Stans, MD of the Program Committee have selected an impressive scientific program for 2015. The meeting will consist of 159 paper podium presentations, 20 posters, and 113 e-posters.

Paper presentations will start Wednesday afternoon and continue on Thursday morning, followed by lunchtime breakout sessions and an ICD-10 workshop. We encourage you to take the rest of Thursday afternoon to spend time in Atlanta with your family, colleagues, and friends. On Friday, Subspecialty Day will incorporate five sessions including: Hip, Sports, Spine, Hand, Lower Extremity/Neuromuscular.

Friday evening, POSNA will host its closing night event at the beautiful Georgia Aquarium. With the aquarium's colorful sea creatures as a backdrop, we hope to see everyone enjoying themselves during the cocktail reception, dinner, and dancing. The meeting will conclude Saturday after more paper presentations.

POSNA thanks everyone for their efforts and contributions to this year's meeting; we wish your time in Atlanta to be successful and enjoyable!

HOTEL INFORMATION

ATLANTA MARRIOTT MARQUIS

The POSNA Annual Meeting will be hosted at the Atlanta Marriott Marquis, one of the premier hotels in downtown Atlanta. Conveniently located in Peachtree Center, just 15 miles from the Hartsfield-Jackson Atlanta International Airport, this hotel is walking distance from the Georgia Aquarium and World of Coca-Cola. It is just a few blocks from CNN Center, Georgia World Congress Center, Philips Arena, and the Georgia Dome. The Marriott Marquis's breathtaking atrium can be spotted by the iconic 50-foot color-changing sail located in Pulse, a cocktail lounge popular to many visitors in downtown Atlanta.

HOUSING INFORMATION

Atlanta Marriott Marquis

265 Peachtree Center Avenue
Atlanta, Georgia 30303
Tel: (866) 469-5475

Online reservations: <https://resweb.passkey.com/go/POSNA2015>
The Atlanta Marriott Marquis only accepts reservations by phone or online. Please reference the POSNA 2015 Annual Meeting when making reservations by phone.

TRANSPORTATION

Hartsfield-Jackson Atlanta International Airport is 15 miles from the Atlanta Marriott Marquis.

Taxi fare from the Hartsfield-Jackson Atlanta International Airport to Atlanta Marriott Marquis is approximately \$32.

SuperShuttle operates a fleet of 7 and 11 passenger vans, 24 hours per day, seven days a week. Shuttles leave every 15 minutes from the airport. On-site ticket purchase is available from uniformed Customer Service Representatives at the SuperShuttle ticket counter located in the Domestic Terminal's south side baggage claim area. Visit www.supershuttle.com or call (404) 410-1290.

Online: One way from the Hartsfield-Jackson Atlanta International Airport is \$19.50 per-person for shared ride van service and \$82.50 per-person for exclusive non-stop van service. By telephone, there is a \$2 service charge added.

Valet parking is \$35 daily. Valet hourly rates up to 6 hours and then daily rate applies. Off-site parking is \$4 hourly and \$20 daily.



MEETING REGISTRATION

Full meeting registration includes sessions starting Wednesday afternoon, April 29 through Saturday morning, May 1st, and includes: course material, Wednesday Opening Ceremony & Reception, Friday Closing Reception, coffee breaks and three continental breakfasts.

Friday Subspecialty Day, May 1, 2015: We will have a special One-Day ONLY registration rate for those who wish to attend the meeting only on Friday. This registration rate will include all sessions on Friday and the Closing Reception. See below for registration rates.

Please Note: Registration and attendance at only the Subspecialty Day does not meet the member meeting attendance requirement as stated in the Bylaws.

Early registration is advised as events are frequently oversubscribed. Complete the registration form and forward with the appropriate registration amount. Allow up to 15 days for processing your registration. You may also register on-line at www.POSNA.org.

Please Note: The Pre-Course requires a separate registration and fee. Attendance at this meeting only does not meet the member meeting attendance requirement.

A \$50 late fee will be charged for meeting registration received after March 2, 2015. Registration closes on March 31, 2015. Any registration received after that date may not be recorded and you may be asked to pay on-site. There will be an additional \$50 fee for those registering on-site.

ACCOMPANYING PERSONS MUST BE REGISTERED IN ORDER TO ATTEND ANY FUNCTION, INCLUDING OPTIONAL EVENTS.

All checks must be in US dollars drawn on a US Bank. If paying by check, please mail your registration to:

POSNA
6665 Eagle Way
Chicago, IL 60678-1066
 Register on-line at www.POSNA.org.

Dates to Remember

Early Registration Deadline March 2, 2015
 Pre-Registration Closes March 31, 2015

After March 31, 2015, please register on-site.

Early Registration Fees (US Dollars)

POSNA Member:	\$675
Non-Member:	\$925
Resident/Fellow:	\$450
RN/PA/Allied Health:	\$450
Delegates from Reduced Rate Countries:	
Low-Income:	\$375
Low-Middle Income:	\$450

Pre-Course Registration:

Member:	\$150
Non-Member:	\$200
RN/PA/Allied Health:	\$100
Resident/Fellow**:	\$100

Friday, Subspecialty Day Registration*:

Friday ONLY – Member:	\$250
Friday ONLY – Non-Member:	\$300
Friday ONLY – Allied Health:	\$200
Friday ONLY – Resident/Fellow:	\$200
Accompanying Person	\$325
Senior Members:	\$375
Children 6 – 12, per child:	\$10
Children 13 – 17, per child:	\$100

After March 2, 2015: **Late Fee \$50**

Pre-Registration closes on **March 31, 2015**
 On-Site registration: additional fee \$50

* Friday Subspecialty Day is a registration for just one day, and includes breakfast, the morning scientific paper sessions, afternoon symposia, and the Closing Reception in the evening.

** Residents/Fellows must have the signature of their Chief of Service on their registration form to qualify for the reduced fee. Without a signature, you will be charged the non-member fee.

MEMBERS BUSINESS MEETINGS

All POSNA members are invited to attend the Members Business Meetings each morning, Thursday, April 30, through Saturday, May 2, 2015, from 6:30 AM to 7:45 AM. Committee Chairs will share reports of their recent activities. A breakfast buffet will be available for all members each day.

NON-MEMBER CONTINENTAL BREAKFASTS

A continental breakfast buffet will be available for all non-member attendees to the POSNA Annual Meeting on Thursday, Friday and Saturday mornings from 6:45 AM to 7:45 AM. Meet with your colleagues and network over coffee and a continental breakfast.

ACCOMPANYING PERSONS CONTINENTAL BREAKFAST

The breakfast buffet for Accompanying Persons will be from 8:00 AM to 9:00 AM, and is open for all spouses, children and accompanying persons who are registered and have a badge. Enjoy coffee and a continental breakfast before heading out for the tours.

INSURANCE / LIABILITIES

POSNA will not be held liable for personal injuries or for loss or damage to property incurred by participants or guests at the Pre-Course or Annual Meeting, including those participating in tours and social events. Participants and guests are encouraged to take out insurance to cover losses incurred in the event of cancellation, medical expenses or damage to or loss of personal effects when traveling outside their own country.

POSNA cannot be held liable for any hindrance or disruption of the Annual Meeting arising from natural, political, social or economic events or other unforeseen incidents beyond its control. Registration of a participant implies acceptance of this condition.

DISCLOSURE OF PERSONAL INFORMATION

When registering for the POSNA Annual Meeting, your personal identifying information is retained by POSNA. You understand and agree that POSNA may disclose your name, address and contact information to your hotel in order to confirm hotel room reservations and meeting attendance numbers. Also, name and addresses are given out to our corporate sponsors for a one-time product mailing. No financial or other personally identifying information is disclosed.

CANCELLATION POLICY

A full refund will be granted if notification is received, in writing, at POSNA, 9400 West Higgins Road, Suite 500, Rosemont, IL 60018–4976, USA, through March 2, 2015. A 20% administrative fee will be charged after March 2, 2015. No refunds will be given after April 27, 2015.

ABOUT POSNA

The Pediatric Orthopaedic Society of North America (POSNA) is a group of professionals comprised mostly of pediatric orthopaedic surgeons. We are board certified in orthopaedic surgery and have participated in additional training to become specialized in the care of children's musculoskeletal health and our practice reflects this dedication. We, as a group, strive to become the authoritative source on such care through appropriate research that will lead to the best evidence-based patient care. On this page you will find more information about our society and a way to contact us with questions.

MISSION STATEMENT

To improve the care of children with musculoskeletal disorders through education, research, and advocacy.

2014 AWARD RECIPIENTS

DISTINGUISHED ACHIEVEMENT AWARD

Alvin H. Crawford, MD

For his leadership and vision in developing and expanding the Pediatric Orthopaedic Program at Cincinnati Children's Hospital. For his contributions to the education of orthopaedic surgery students, residents and fellows in the United States and worldwide. For receiving the American Academy of Orthopaedic Surgeons Diversity Award. Defining diversity: "Being able to accept other people's values, then relate and communicate. That's what diversity is." For being a role model and exemplifying the best of pediatric orthopaedic surgery by making achievement a lifestyle, not a goal.

POSNA HUMANITARIAN AWARD

Richard M. Schwend, MD

In recognition of his time and energy to build and advocate for the POSNA COUR Committee, and for delivering outstanding musculoskeletal care to the under-served children of the world.

POSNA SPECIAL EFFORTS AND EXCELLENCE AWARD

Bryan J. Tompkins, MD

In Recognition of his Outstanding Service to the Mission of POSNA, especially his leadership and countless hours invested in building and renovating POSNA's technological capacity.

2014 POSNA DIRECTED RESEARCH

Donald S. Bae, MD

Improving Value Delivery in Pediatric Distal Radius Fracture Care

2014 POSNA BASIC SCIENCE RESEARCH GRANT

Shawn R. Gilbert, MD

Effects of Obesity on the Physis

2014 POSNA CLINICAL RESEARCH GRANTS

Joseph Janicki, MD

Evaluation of the Necessity of Operative Irrigation and Debridement: Pediatric Randomized Trial of Type One Open Fractures (PROOF Study)

Lewis E. Zions, MD

The Objective Determination of Compliance with the Use of Post-Corrective Braces in the Treatment of Infants with Idiopathic Clubfoot

2014 POSNA RESEARCH START UP GRANTS

Vidyadhar V. Upasani, MD

Acetabular Parameters in the Normal Developing Pig: A Multi-Modal Imaging Analysis

Simon P. Kelley, MD

International Competency Based Training for the Application of a Pavlik Harness

2014 POSNA CLINICAL TRIALS GRANT

David A. Podeszwa, MD

Clinical Trial Planning Grant on Motion Analysis in Patients with Femoroacetabular Impingement Following Conservative Treatment and/or Hip Preservation Surgery

2014 ANGELA M. KUO MEMORIAL AWARD

Roger Cornwall, MD

Muscle Contracture Pathophysiology in CP and Neonatal Brachial Plexus Injury

2014 ARTHUR HUENE MEMORIAL AWARD

Lawson A. Copley, MD

Gene Expression of Methicillin-Resistant and Methicillin-Sensitive Staphylococcus Aureus Isolates Which Cause Acute Hematogenous Osteomyelitis in Children—The Impact on Clinical Severity of Illness

2014 ST. GILES AWARD

Emily R. Dodwell, MD

Percutaneous Screw vs. Percutaneous Drill Epiphysiodesis for Leg Length Discrepancy: A Randomized Controlled Trial

2014 DEPUY SYNTHES SPINE RESEARCH GRANT

Siram Balasubramanian, PhD

Effects of Spinal Fusion and Instrumentation of Rib Position, Costovertebral Joint Geometry and Vertebral Morphology in Adolescent Idiopathic Scoliosis

2014 BIOMET SPINE RESEARCH GRANT

Matthew A. Halanski, MD

A New Porcine Model for Pediatric Spinal Deformity

2014 GLOBUS MEDICAL QSV RESEARCH GRANT

Burt Yaszay, MD

Risk of Implant Loosening After Cyclic Loading of Fusionless Growth Modulation Techniques: Flexible Tether (Dynesys) vs. SMA Staples



POSNA
PEDIATRIC ORTHOPAEDIC SOCIETY
OF NORTH AMERICA

PROGRAM AT A GLANCE

Tuesday, April 28

Board of Directors Meeting	7:00 AM – 3:00 PM	International C
Registration	4:00 PM – 6:00 PM	Marquis & Imperial Reg
POPS Meeting	6:00 AM – 6:00 PM	Imperial A

Wednesday, April 29

Fellowship Directors Meeting	6:30 AM – 7:30 AM	International C
Registration	6:30 AM – 5:00 PM	Marquis & Imperial Reg
Course Breakfast	6:30 AM – 7:45 AM	Imperial B
Pre-Course	8:00 AM – 12:30 PM	Marquis Ballroom
Scientific Program	1:30 PM – 5:15 PM	Marquis Ballroom

Evening

Opening Ceremony	6:30 PM – 7:45 PM	Marquis Ballroom
Welcome Reception	7:45 PM – 9:30 PM	Marquis Foyer

Thursday, April 30

Registration	6:30 AM – 3:30 PM	Marquis & Imperial Reg
Member Breakfast/ Business Meeting	6:30 AM – 7:45 AM	Imperial B
Non-Member Breakfast	6:30 AM – 7:45 AM	Imperial A
Accompanying Persons Breakfast	8:00 AM – 9:00 AM	Imperial A
Scientific Program	8:00 AM – 12:15 PM	Marquis Ballroom
Distinguished Achievement Award	10:05 AM – 10:20 AM	Marquis Ballroom
Concurrent Session	10:35 PM – 12:15 PM	Imperial B
Lunchtime Breakout Sessions NP-PA/Practice Mgmt/ Research	12:30 PM – 2:00 PM	International Rooms: TBD
COUR	12:30 PM – 3:00 PM	International Rooms: TBD
ICD-10 Workshop	2:15 PM – 5:15 PM	International Rooms: TBD
Young Member Forum	5:00 PM – 6:30 PM	International 1–3

Program Subject to Change

Friday, May 1

Registration	6:30 AM – 5:00 PM	Marquis & Imperial Reg
Member Breakfast/ Business Meeting	6:30 AM – 7:45 AM	Imperial B
Non-Member Breakfast	6:30 AM – 7:45 AM	Imperial A
Accompanying Persons Breakfast	8:00 AM – 9:00 AM	Imperial A
Scientific Program	8:00 AM – 12:00 PM	Marquis Ballroom
Award Papers	8:00 AM – 10:50 AM	Marquis Ballroom
Presidential Speaker	11:13 AM – 11:25 AM	Marquis Ballroom
POSNA 2016	11:26 AM – 11:29 AM	Marquis Ballroom
Presidential Transfer	11:30 AM – 12:00 PM	Marquis Ballroom
Subspecialty Day Hip/Hand/LE-NM/ Spine/Sports	1:00 PM – 5:15 PM	Imperial and International Rooms: TBD
Evening Closing Reception	6:30 PM – 10:00 PM	Georgia Aquarium

Saturday, May 2

Registration	6:30 AM – 1:00 PM	Marquis & Imperial Reg
Business Meeting Member Breakfast	6:30 AM – 7:45 AM	Imperial B
Non-Member Breakfast	6:30 AM – 7:45 AM	Imperial A
Accompanying Persons Breakfast	8:00 AM – 9:00 AM	Imperial A
2nd Board Meeting	8:00 AM – 9:00 AM	International C
Scientific Session	8:00 AM – 12:30 PM	Marquis Ballroom

2015 POSNA PRE-COURSE

Treatment of Fractures in Kids: The Next Generation's Perspective

Chair: Anthony A. Stans, MD

Wednesday, April 29, 2015

DESCRIPTION

Trauma remains the most common category of disorders treated by pediatric orthopaedic surgeons. A majority of recent orthopaedic residency graduates report that greater than 40% of their practice involves treating orthopaedic trauma. Surgical treatment of supracondylar humerus fracture is the most numerous procedure performed by pediatric orthopedic surgeons submitting case lists to the American Board of Orthopedic Surgery when applying for certification. Fracture management techniques continue to evolve, emphasizing less invasive surgery and intervention. Young pediatric orthopaedic surgeons often lead practice innovation but may not have the academic prominence or reputation to provide a platform for impactful physician education. **Treatment of Fractures in Kids: The Next Generation's Perspective** addresses these education gaps by providing the opportunity for young, talented physicians to educate conference attendees on innovative fracture management techniques. Seasoned POSNA experts will moderate sessions sharing their knowledge and insight, and will provide clinical cases to generate vigorous audience and panel interaction during generous time periods set aside for discussion. Keynote speaker James Beaty, MD, will kick-off the Pre-Course giving attendees his perspective on pediatric fracture management.

OBJECTIVES

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

1. Incorporate one new, innovative fracture management strategy into his/her treatment armamentarium.
2. List three steps which can be taken to reduce the risk of cast saw burns.
3. Compare and contrast the advantages and disadvantages of cast immobilization, flexible intramedullary nailing and external fixation for tibia shaft fracture treatment.
4. Identify similarities and differences between flexible intramedullary nail treatment of fractures involving the tibia, humerus and forearm.

ACCREDITATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Pediatric Orthopaedic Society of North America. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

CONTINUING MEDICAL EDUCATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of **4.5 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



WEDNESDAY, APRIL 29

8:00 AM – 8:05 AM	Opening Welcome POSNA President: <i>Gregory A. Mencio, MD</i> <i>Nashville, TN</i> Chair: <i>Anthony A. Stans, MD</i> <i>Rochester, MN</i>	10:08 AM – 10:15 AM	Locked Intramedullary Nailing for Patients Age 12 and Younger: Indications and Technique <i>Jeffrey E. Martus, MD</i> <i>Nashville, TN</i>
8:06 AM – 8:16 AM	KEYNOTE SPEAKER Fractures in Children...The Long View <i>James H. Beaty, MD</i> <i>Memphis, TN</i>	10:16 AM – 10:23 AM	Flexible IM Nails in Children: How Young is Too Young? <i>Daniel Hoernschemeyer, MD</i> <i>Columbia, MO</i>
8:17 AM – 9:08 AM	Session 1 – General and Ankle Moderator: <i>Kenneth J. Noonan, MD</i> <i>Madison, WI</i>	10:24 AM – 10:45 AM	MODERATOR TO PRESENT 1 – 2 CASES FOR AUDIENCE AND PANEL DISCUSSION
8:17 AM – 8:23 AM	How to Avoid Cast Saw Complications <i>Matthew A. Halanski, MD</i> <i>Madison, WI</i>	10:46 AM – 11:30 AM	Session 4 – Shoulder and Humerus Moderator: <i>William L. Hennrikus Jr., MD</i> <i>Hershey, PA</i>
8:24 AM – 8:30 AM	Type I Open Fractures Benefit from Immediate Antibiotics but Not Necessarily Immediate Surgery <i>James Lee Pace, MD</i> <i>Los Angeles, CA</i>	10:46 AM – 10:52 AM	Surgical Treatment of Adolescent Clavicle Fractures: Results and Complications <i>Amy L. McIntosh, MD</i> <i>Dallas, TX</i>
8:31 AM – 8:37 AM	Management of Syndesmotic Ankle Injuries in Children and Adolescents <i>Benjamin J. Shore, MD</i> <i>Boston, MA</i>	10:53 AM – 11:00 AM	Which Proximal Humerus Fractures Should be Pinned? <i>Eric C. King, MD</i> <i>Chicago, IL</i>
8:38 AM – 8:44 AM	Tibial Spine Fractures; Open Treatment is Not Just for the Weak <i>Todd A. Milbrandt, MD</i> <i>Rochester, MN</i>	11:01 AM – 11:08 AM	Flexible IM Nailing for Humeral Shaft Fractures: Indications and Technique <i>Derek M. Kelly, MD</i> <i>Memphis, TN</i>
8:45 AM – 9:08 AM	MODERATOR TO PRESENT 1 – 2 CASES FOR AUDIENCE AND PANEL DISCUSSION	11:09 AM – 11:30 AM	MODERATOR TO PRESENT 1 – 2 CASES FOR AUDIENCE AND PANEL DISCUSSION
9:09 AM – 9:50 AM	Session 2 – Tibia Moderator: <i>Steve L. Frick, MD</i> <i>Orlando, FL</i>	11:31 AM – 12:25 PM	Session 5 – Elbow and Forearm Moderator: <i>Peter M. Waters, MD</i> <i>Boston, MA</i>
9:09 AM – 9:15 AM	Tibia Shaft Fractures in Adolescents: How and When Can They Be Managed Successfully With Cast Treatment? <i>Christine A. Ho, MD</i> <i>Dallas, TX</i>	11:31 AM – 11:37 AM	Medial Epicondyle Fracture Treatment in Future Professional and Olympic Athletes <i>J. Todd Lawrence, MD, PhD</i> <i>Philadelphia, PA</i>
9:16 AM – 9:22 AM	Flexible IM Nailing Unstable and/or Open Tibia Shaft Fractures <i>Nirav Pandya, MD</i> <i>Oakland, CA</i>	11:38 AM – 11:45 AM	Percutaneous Reduction of Displaced Radial Neck Fractures Achieves Better Results Compared to Fractures Treated by Open Reduction <i>Alexandre Arkader, MD</i> <i>Los Angeles, CA</i>
9:23 AM – 9:29 AM	Managing Unstable Tibia Fractures with Circular External Fixation <i>Christopher A. Iobst, MD</i> <i>Orlando, FL</i>	11:46 AM – 11:53 AM	Successful Strategies for Managing Monteggia Injuries <i>Donald S. Bae, MD</i> <i>Boston, MA</i>
9:30 AM – 9:50 AM	MODERATOR TO PRESENT 1 – 2 CASES FOR AUDIENCE AND PANEL DISCUSSION	11:54 AM – 12:01 PM	Staying Out of Trouble Performing Intramedullary Nailing of Forearm Fractures <i>Lindley B. Wall, MD</i> <i>St. Louis, MO</i>
9:50 AM – 10:00 AM	Break	12:02 PM – 12:25 PM	MODERATOR TO PRESENT 1 – 2 CASES FOR AUDIENCE AND PANEL DISCUSSION
10:01 AM – 10:45 AM	Session 3 – Femoral Shaft Moderator: <i>Martin J. Herman, MD</i> <i>Philadelphia, PA</i>	12:26 PM – 12:30 PM	Wrap Up
10:01 AM – 10:07 AM	Bridge Plating Length-Unstable Femoral Shaft Fractures <i>Kevin E. Klingele, MD</i> <i>Columbus, OH</i>		



HOUSING INFORMATION

Atlanta Marriott Marquis

265 Peachtree Center Avenue
Atlanta, Georgia 30303

Tel: (866) 469-5475

Online reservations: <https://resweb.passkey.com/go/POSNA2015>

2015 POSNA PRE-COURSE

Treatment of Fractures in Kids: The Next Generation's Perspective

Wednesday, April 29, 2015
8:00 AM – 12:30 PM
Marriott Marquis, Atlanta, GA

REGISTRATION CLOSES
March 31, 2015
Please register on-site after this date.

COURSE REGISTRATION INFORMATION

Name: (First and last): _____

Address: _____

City: _____ State: _____ Zip: _____ - _____ Country: _____

Telephone: _____ Fax: _____ Email: _____

TUITION, Check only one:

- | | | | |
|--|----------|------------------------------------|----------|
| ☐ Member | \$150.00 | ☐ Resident* | \$100.00 |
| ☐ Non-Member | \$200.00 | ☐ Fellow* | \$100.00 |
| ☐ Nurse/Allied Health | \$100.00 | ☐ Faculty | N/C |

NOTE: *Residents/Fellows: You must have the signature of your Chief of Service below to qualify for the reduced fee.
If this form is not signed you will be charged the Non-Member fee. _____

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SCIENTIFIC PROGRAM

WEDNESDAY, APRIL 29

1:30 PM–1:39 PM INTRODUCTION AND OPENING REMARKS

QUALITY, SAFETY, VALUE

Moderator: James O. Sanders, MD**eModerator:** John (Jack) M. Flynn, MD**President:** Emily Dodwell, MD

1

1:40 PM–1:44 PM

Adopting the EMR: Effect on Efficiency, Completeness, Accuracy, Teaching, and Surgeon Satisfaction in an Academic Pediatric Orthopedic Practice**Steven M. Hollenbeck, MD;**

James David Bomar; Dennis R. Wenger, MD;

Burt Yaszay, MD

Rady Children's Hospital, San Diego, CA

2

1:45 PM–1:49 PM

Pediatric Orthopaedic Emergency Room Transfers: Are They Warranted?**Joshua M. Abzug, MD;** Xuyang Song;

Rory Carroll, BS

University of Maryland School of Medicine, Baltimore, MD

3

1:50 PM–1:54 PM

What is the Role of Faculty in Training Residents?**Benjamin A. Alman, MD, FRCSC;**

Peter Ferguson, MD; William Kraemer, MD;

Markku Nousiainen, MD; Oleg Safir, MD

Duke University, Durham NC

1:55 PM–2:03 PM

Discussion

4

2:04 PM–2:08 PM

Characteristics of Medical Processional Liability Claims in Pediatric Orthopedics**Mohan V. Belthur, MD;** Steven Irby;

Lee S. Segal, MD; Carla Plantikow, MSc;

M. Wade Shrader, MD

Phoenix Children's Hospital, Phoenix, AZ

5

2:09 PM–2:13 PM

Which Common Pediatric Orthopaedic Procedures are the Most Dangerous?**Brian G. Smith, MD;** Bryce A. Basques, BS;

Nicholas Golinvaux, BA; Daniel D. Bohl, MPH;

Jonathan N. Grauer, MD

Yale University School of Medicine, New Haven, CT

6

2:14 PM–2:18 PM

Early Career Experience of Pediatric Orthopaedic Fellows: What to Expect and Need for Their Services**Michael P. Glotzbecker, MD;**

Benjamin J. Shore, MD, FRCSC;

Nicholas David Fletcher, MD;

A. Noelle Larson, MD; Jeffrey R. Sawyer, MD

Boston Children's Hospital, Boston, MA

2:19 PM–2:27 PM

Discussion

7

2:28 PM–2:32 PM

How Does Patient Radiation Exposure Compare with Low Dose O-Arm vs. Fluoroscopy for Pedicle Screw Placement in Idiopathic Scoliosis?**Alvin W. Su, MD;** Amy L. McIntosh, MD;

Anthony A. Stans, MD; A. Noelle Larson, MD

Mayo Clinic, Rochester, MN; Texas Scottish

Rite Hospital for Children, Dallas, TX

8

2:33 PM–2:37 PM

Which Malpositioned Pedicle Screws Should Be Revised?**A. Noelle Larson, MD;**

Charles Hopkins Crawford III, MD;

Charles Gerald T. Ledonio, MD;

Leah Yacat Carreon, MD;

Minimize Implants Maximize Outcomes Study Group

University of Minnesota, Minneapolis, MN;

Mayo Clinic, Rochester, MN

9

2:38 PM–2:42 PM

Improving Quality and Safety in Pediatric Spine Surgery: The Team Approach**Firoz Miyanji, MD;** John Choi; Janice Mok;

Michael Nitikman; Sameer Desai, BS

British Columbia Children's Hospital, Vancouver, BC, CANADA

2:43 PM–2:51 PM

Discussion

10

2:52 PM–2:56 PM

ABOS Questionnaire as a Framework for QSV Evaluation in Pediatric Supracondylar Humerus Fracture Care**Steven L. Frick, MD;****Christopher A. Iobst, MD;**

Matthew Stillwagon, BS;

Eric D. Shirley, MD

Nemours Children's Hospital, Orlando, FL

11

2:57 PM–3:01 PM

Implementation of a Standardized Clinical Assessment and Management Plan (SCAMP) Pediatric Distal Radius Fractures: Effect on Quality and Care**Donald S. Bae, MD;**

Rachel L. DiFazio, MS, RN, cPNP;

Marie Harris, MPH; Dionne Graham PhD;

Rose Hamershock, MA; Susan T. Mahan, MD;

Peter M. Waters, MD

Boston Children's Hospital, Boston, MA,

Institute for Relevant Clinical Data Analytics, Boston, MA

12

3:02 PM–3:06 PM

Does the Use of Midlevel Providers in the Closed Treatment of Pediatric Both Bone Forearm Fractures Increase Malunion Risk?**Roger Cornwall, MD;**

Stephanie Pinkstock, PA-C;

Emily A. Eismann, MS

Cincinnati Children's Hospital Medical Center, Cincinnati, OH

3:07 PM–3:15 PM Discussion

13
3:16 PM–3:20 PM **Are We Giving Our Patients Too Much Pain Medication After Surgery?**
Daniel Ryan Grant, MD;
Scott J. Schoenleber, MD;
Alicia McCarthy, NP; Kenneth J. Rogers, PhD;
Petya Yorgova, MS; Geraldine Neiss, PhD;
Peter G. Gabos, MD; Suken A. Shah, MD
Nemours/Alfred I. duPont Hospital for
Children, Wilmington, DE

14
3:21 PM–3:25 PM **Volume, Charges, and Costs of Operative vs. Non-Operative Management of Diaphyseal Clavicle Fracture in Adolescents at Thirty-Four U.S. Children's Hospitals**
Benton E. Heyworth, MD;
Lanna Feldman, BA; Donald S. Bae, MD
Boston Children's Hospital, Boston, MA

15
3:26 PM–3:30 PM **Magnetically Controlled Growing Rod Achieves Estimated Cost Savings Compared to Traditional Growth Rods Over Five Years**
Alvin W. Su, MD, PhD;
Todd A. Milbrandt, MD; A. Noelle Larson, MD
Mayo Clinic, Rochester, MN

3:31 PM–3:39 PM Discussion

3:40 PM–4:00 PM Break

INFECTIONS/TUMORS

Moderator: Andrew W. Howard, MD

eModerator: Jonathan G. Schoenecker, MD

President: Antoinette W. Lindberg, MD

16
4:01 PM–4:05 PM **Recurrence After Radiofrequency Ablation Treatment of Osteoid Osteomas Over a Decade in a Pediatric Hospital: Rates and Associated Factors**
Megan E. Anderson, MD;
Matthew J. Sabatino, MD; Manahil Naqvi;
Mamun Al-Rashid, MBBS MD MRCS;
Horacio Padua Jr MD; Mark C. Gebhardt, MD
Boston Children's Hospital, Boston, MA

17
4:06 PM–4:10 PM **Long-Term Outcome Following Lower Limb Salvage with Massive Bone Allograft and Intramedullary Free Fibula (Capanna Technique) in Pediatric and Adolescent Patients**
Anthony A. Stans, MD;
Matthew Houdek, MD; Eric R. Wagner, MD;
Franklin H. Sim, MD; Steven L. Moran, MD
Mayo Clinic, Rochester, MN

18
4:11 PM–4:15 PM **Incidence of Intraspinous Exostoses in Multiple Hereditary Exostoses**
Allison C. Scott, MD; Richard E. Haigler, MD
Shriners Hospital for Children, Houston, TX

4:16 PM–4:24 PM Discussion

19
4:25 PM–4:29 PM

Can You Retain Spinal Hardware in Acute Postoperative Infections? A Multicenter Study

Michael P. Glotzbecker, MD;
Jaime A. Gomez, MD; Patricia Miller, MS;
Michael John Troy, BS;
David L. Skaggs, MD;
Michael G. Vitale, MD, MPH;
John (Jack) M. Flynn, MD;
Kody Kenneth Barrett, BA;
Gregory Ian Pace, BA;
Daniel J. Hedequist, MD
Boston Children's Hospital, Boston, MA

20
4:30 PM–4:34 PM

Cumulative Radiation Exposure with EOS® Imaging Compared to Standard Spine Radiographs

T. David Luo, BS; **Anthony A. Stans, MD;**
Beth A. Schueler, PhD; A. Noelle Larson, MD

21
4:35 PM–4:39 PM

Spinal Infections in AIS and Neuromuscular Scoliosis: Are MRSA Nares' Cultures Predictors of Trouble To Come?

Jose A. Herrera-Soto, MD;
Dennis Raymond Knapp, Jr., MD;
Jonathan H. Phillips, MD;
John Moritz Wiemann, MD;
Jonathan Howard Wilhite, MD;
Brandon A. Ramo, MD
Arnold Palmer Hospital for Children,
Orlando, FL

4:40 PM–4:48 PM Discussion

22
4:49 PM–4:53 PM

Predictive Factors for Differentiating Between Septic Arthritis and Lyme Disease of the Knee

Afamefuna Nduaguba;
Keith D. Baldwin, MD;
Wudbhav N. Sankar, MD
Children's Hospital of Philadelphia,
Philadelphia, PA

23
4:54 PM–4:58 PM

The Use of C-Reactive Protein as a Guide to Transition to Oral Antibiotics in the Management of Pediatric Osteoarticular Infections

Arjandas S. Mahadev, MD;
Andrew Chia Chen Chou, BS
KK Women's and Children's Hospital,
SINGAPORE

24
4:59 PM–5:03 PM

Prevalence and Complications of Musculoskeletal Infections in Adolescents: A Result of Delay in Diagnosis?

Brian P. Scannell, MD; Sarah Pierrie, MD;
Brian K. Brighton, MD;
Kelly L. Vanderhave, MD
Carolinas Healthcare System and Levine
Children's Hospital, Charlotte, NC

5:04 PM–5:12 PM Discussion

THURSDAY, APRIL 30

8:00 AM–8:04 AM WELCOME AND REMARKS

HIP

Moderator: Charles T. Price, MD**eModerator:** TBD**Presenter:** Tim Schrader, MD

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8:05 AM–8:09 AM

Remodeling and Longitudinal Growth of the Hip After Unthreaded Fixation of Slipped Capital Femoral Epiphysis**Jakob Ortegren, MD;**
Carl Johan Tiderius, MD, PhD
Skane University Hospital, Lund, SWEDEN

26

8:10 AM–8:14 AM

Slip Progression After In-Situ Screw Fixation of Slipped Capital Femoral Epiphysis**Rachel Goldstein, MD;** Stephanie Chu;
Erin Dawicki, PA; Herman Luther;
Lindsay Andras, MD; Michael B. Millis, MD
Children's Hospital Los Angeles,
Los Angeles, CA

27

8:15 AM–8:19 AM

Long-Term Health Status After In-Situ Fixation for Slipped Capital Femoral Epiphysis**Benjamin Escott, MBBS, MSc;**
Adriana De La Rocha, MS;
Chan-Hee Jo, PhD;
Daniel J. Sucato, MD, MS; Lori A. Karol, MD
Texas Scottish Rite Hospital for Children,
Dallas, TX

8:20 AM–8:28 AM

Discussion

28

8:29 AM–8:33 AM

The Modified Dunn Procedure vs. In-Situ Pinning for Treatment of Severe Stable Slipped Capital Femoral Epiphysis**Eduardo V. Novais, MD;**
Travis C. Heare, MD; Mary Katherine Hill, BA;
Patrick Carry; Ernest L. Sink, MD
Children's Hospital Colorado, Aurora, CO

29

8:34 AM–8:38 AM

The False Profile Radiograph: Is it an Accurate and Precise Method of Assessing Anterior Coverage?**Jeffrey J. Nepple, MD;** James Ross, MD;
Asheesh Bedi, MD; Sara Putnam, MD;
Gail Pashos, Perry L. Schoenecker, MD;
John C. Clohisy, MD
Washington University School of Medicine,
St. Louis, MO

30

8:39 AM–8:43 AM

Expectations and Satisfaction of Patients of Outcomes After PAO Surgery**Michael B. Millis, MD;** Gloria N. Boye;
Patricia Miller, MS; Young Jo Kim, MD, PhD
Boston Children's Hospital, Boston, MA

8:44 AM–8:52 AM

Discussion

31

8:53 AM–8:57 AM

Ilfeld Abduction Orthosis is an Effective Second Line Treatment Following Failure of Pavlik Harness for Infants with DDH**Wudbhav N. Sankar, MD;**
Afamefuna Nduaguba;
John (Jack) M. Flynn, MD
Children's Hospital of Philadelphia,
Philadelphia, PA

32

8:58 AM–9:02 AM

The Risk of Avascular Necrosis Following Early Treatment with the Von Rosen Splint for Neonatal Instability of the Hip**Daniel R. Wenger, MD;** Hanna Samuelsson;
Carl Johan Tiderius, MD, PhD
Lund University, Lund, SWEDEN

33

9:03 AM–9:07 AM

Pavlik Treatment for Dislocated but Irreducible Hips in Infants Aged <6 Months: Unilateral Hips Have High Success Rate, Bilateral Hips are Doomed to Failure**Alexander Aarvold, FRCS, MB, ChB, BS, MD;** Kishore Mulpuri, MD;
Simon Kelley, MBChB, FRCS;
Nicholas Clarke, FRCS;
Jose A. Herrera Soto, MD;
Charles T. Price, MD
BC Children's Hospital, Vancouver, BC,
CANADA

9:08 AM–9:16 AM

Discussion

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9:17 AM–9:21 AM

Avascular Necrosis in Children with Cerebral Palsy After Reconstructive Hip Surgery**Kishore Mulpuri, MD; Lisa Phillips, MD;**
Kim Hesketh, MSc, PT; Janice Andrade;
Jennifer Farr
BC Children's Hospital, Vancouver, BC,
CANADA

35

9:22 AM–9:26 AM

The Birmingham Interlocking Pelvic Osteotomy: Controlled Predictable Correction of Acetabular Dysplasia. 15 to 23 Year Survival**John N. O'Hara, FRCS;** Dylan Jewell, MD;
Callum McBryde, MD
Royal Orthopaedic Hospital, & Children's
Hospital, Birmingham UK

36

9:27 AM–9:31 AM

Prevention and Treatment of Major Complications of Femoral Neck Osteotomies**Prasad Gourineni, MD;**
Summer Watkins, NP, RN, MS
Advocate Children's Hospital, Oakbrook, IL

9:32 AM–9:40 AM

Discussion

37
9:41 AM–9:45 AM **Long-Term Results Following Bernese Periacetabular Osteotomy, Minimum 15-Year Follow-Up**
Joel E. Wells, MD, MPH; Evgeny Bulat, MA; Young Jo Kim, MD, PhD; Michael B. Millis, MD; Travis H. Matheney, MD
Boston Children's Hospital, Boston, MA

38
9:46 AM–9:50 AM **Risk Factors for Late Presenting Developmental Dysplasia of the Hip From A Multi-Centre, Prospective Study Group**
Kishore Mulpuri, MD; Janice Andrade; Nicole Williams, FRACS, MBBS; Wudbhav N. Sankar, MD; Travis H. Matheney, MD; Pablo Castaneda, MD; Nicholas Clarke, FRCS; Charles T. Price, MD
BC Children's Hospital, Vancouver, BC, CANADA

39
9:51 AM–9:55 AM **Factors Affecting the Outcome of Open Reduction Performed Over the Age of Eighteen Months for Developmental Dysplasia of the Hip**
Tom Southorn, MBBS, BSc, FRCS; Sami Al-Ali; Aresh Hashemi-Nejad, FRCS; Deborah Eastwood, FRCS; Andreas Roposch, MD
Great Ormond Street Hospital for Children, London, UK

9:56 AM–10:04 AM Discussion

10:05 AM–10:20 AM **Distinguished Achievement Award**

10:20 AM–10:35 AM Break

CONCURRENT SESSION I: SPINE

Moderator: Laurel C. Blakemore, MD

eModerator: Mark A. Erickson, MD

Presider: Robert H. Cho, MD

10:35 AM–10:39 AM Welcome and Remarks

40
10:40 AM–10:44 AM **It's Not Just the Big Kids: Both High and Low BMI Impact Bracing Success for AIS**
Christine Goodbody, BA; Ivor B. Asztalos, BS; Wudbhav N. Sankar, MD; John (Jack) M. Flynn, MD
Children's Hospital of Philadelphia, Philadelphia, PA

41
10:45 AM–10:49 AM **The Effect of Risser Sign on the Likelihood of Failure with Bracing in Adolescent Idiopathic Scoliosis**
Lori A. Karol, MD; Donald D. Virostek; Kevin Felton; Lesley Wheeler, BA
Texas Scottish Rite Hospital, Dallas, TX

42
10:50 AM–10:54 AM **Does Spinal Cord Morphology Predict Curve Progression in Adolescent Idiopathic Scoliosis Treated by Bracing? A Prospective Cohort Study with Magnetic Resonance Imaging**
Lam Tsz Ping, MBBS, FRCSE; Min Deng; Tsz Ping Lam, MBBS, FRCS; Steve CN Hui; Fiona Yu; Elisa MS Tam, PhD; Bobby Kin Wah Ng, MD; Jack C-Y Cheng, MD; Winnie Chiu-Wing Chu
The Chinese University of Hong Kong, Hong Kong SAR

10:55 AM–11:03 AM Discussion

43
11:04 AM–11:08 AM **New EOS Imaging Protocol Allows a 50-Fold Reduction in Radiation Exposure for Scoliosis Patients**
Peter O. Newton, MD; Fredrick George Reighard, MPH; Carrie Bartley, MA; Yash Khandwala MD; Tracey Bastrom, MA; Burt Yaszay, MD
Rady Children's Hospital, San Diego, CA

44
11:09 AM–11:13 AM **SRS-22R Scores in Non-Operatively Treated Adolescent Idiopathic Scoliosis Patients with Curves Greater Than Forty Degrees**
W. Timothy Ward, MD; James W. Roach, MD; Tanya Kenkre, PhD; Nicole A. Friel, MD; Gregory Jones; Maeve Ward; Maria Brooks, PhD
University of Pittsburgh Medical Center, Pittsburgh, PA

45
11:14 AM–11:18 AM **A Three-Dimensional Analysis of Apical Lordosis Correction–The Role of the Ponte Osteotomy**
Yong Kim; Tracey Bastrom, MA; Carrie Bartley, MA; Fredrick George Reighard, MPH; Burt Yaszay, MD; Peter O. Newton, MD
Rady Children's Hospital, San Diego, CA

11:19 AM–11:27 AM Discussion

46
11:28 AM–11:32 AM **Minimum 20-Year Outcomes for Treatment of Adolescent Idiopathic Scoliosis: Results From a Novel Cohort of U.S. Patients**
A. Noelle Larson, MD; William J. Shaughnessy, MD; David W. Polly Jr., MD; Charles Gerald T. Ledonio, MD; Michael J. Yaszemski, MD, PhD
Mayo Clinic, Rochester, MN

THURSDAY, APRIL 30

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11:33 AM–11:37 AM

Use of Tranexamic Acid (TXA) on Reducing Blood Loss During Scoliosis Surgery in Adolescents

Lam Tsz Ping, MBBS, FRCSE;
Bobby Kin Wah Ng, MD; Wai Wang Chau;
 Alec Hung, MBBS; Anna Hui;
 Linda Fu, MBBS; Tsz Ping Lam, MBBS, FRCS;
 Jack C-Y Cheng, MD
 The Chinese University of Hong Kong, Prince
 of Wales Hospital, Shatin, Hong Kong SAR

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11:38 AM–11:42 AM

Is MRI Necessary for Adolescent Idiopathic Scoliosis When Patients Present with Curves Over 80 Degrees?

Daniel J. Sucato, MD, MS;
 Dong-Phuong Tran, MS; Anna McClung, RN
 Texas Scottish Rite Hospital for Children,
 Dallas, TX

11:43 AM–11:51 AM

Discussion

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11:52 AM–11:56 AM

Patients Without Intraoperative Neuromonitoring (IONM) Alerts During VEPTR Implantation Did Not Sustain Neurologic Injury During Subsequent Routine Expansions: A Retrospective Multi-Center Cohort Study

Jaren Lagreca, BA; Tara Flynn;
 Patrick John Cahill, MD; Amer Samdani, MD;
 Michael G. Vitale, MD, MPH;
 Ron El-Hawary, MD; John T. Smith, MD;
 Jonathan H. Phillips, MD;
 John (Jack) M. Flynn, MD;
 Michael P. Glotzbecker, MD;
Sumeet Garg, MD
 Children's Hospital Colorado, Aurora, CO

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11:57 AM–12:01 PM

Re-Operation After Magnetically Controlled Growing Rod Implantation: A Review of 26 Patients with Minimum Two-Year Follow-Up

Jeff Pawelek; Kenneth M.C. Cheung, MD;
 Kenny Kwan, FRCS;
 John Alexander Ferguson, FRACS;
 Colin Nnadi, MBBS, FRCS;
 Ahmet Alanay, MD; Muharrem Yazici, MD;
 Gokhan Halil Demirkiran, MD;
 Ikka Helenius, MD;
Behrooz A. Akbarnia, MD
 Queen Mary Hospital, The University of Hong
 Kong, Hong Kong SAR

51

12:02 PM–12:06 PM

Can a "No Final Fusion" Produce Equal Results to Final Fusion After Growing Rod Treatment?

Amit Jain, MD; **Paul D. Sponseller, MD**;
 Urvij M. Modhia, MBBS, MD;
 Suken A. Shah, MD;
 George H. Thompson, MD; Jeff Pawelek;
 Behrooz A. Akbarnia, MD;
 Growing Spine Study Group
 Johns Hopkins Bloomberg Children's Center,
 Baltimore, MD

12:07 PM–12:15 PM Discussion

CONCURRENT SESSION II: LOWER EXTREMITY/SPORTS**Moderator:** Jennifer M. Weiss, MD**eModerator:** Theodore J. Ganley, MD**Presider:** Kerwyn C. Jones, MD

10:35 AM–10:39 AM Welcome and Remarks

52

10:40 AM–10:44 AM

Risk Factors for ACL Reconstruction Failure in Pediatric and Adolescent Patients: A Review of 913 Cases

Andrew T. Pennock, MD; Brian P. Ho, BA;
 Eric W. Edmonds, MD;
 Henry G. Chambers, MD; Tracey Bastrom, MA
 Rady Children's Hospital, San Diego, CA

53

10:45 AM–10:49 AM

Long-Term Follow-Up of Pediatric ACL Reconstruction in New York State: High Rates of Subsequent ACL Reconstruction

Emily Dodwell, MD;
 Moira Margaret McCarthy, MD;
 Ting-Jung Pan, MPH; Daniel W. Green, MD;
 Stephen Lyman, PhD
 Hospital for Special Surgery, New York, NY

54

10:50 AM–10:54 AM

All-Inside, All-Epiphyseal ACL Reconstruction in Skeletally Immature Athletes: Return to Play, Incidence of Second Surgery and Two-Year Clinical Outcomes

Daniel W. Green, MD;
 Jessica M. Graziano, DPT, PT;
 Polly De Mille, RN; Theresa Chiaia DPT;
 Moira Margaret McCarthy, MD;
 Danyal Nawabi, MD, FRCS;
 Frank A. Cordasco, MD
 Hospital for Special Surgery, New York, NY

10:55 AM–11:03 AM Discussion

55

11:04 AM–11:08 AM

Outcomes Following Operative Treatment of Bucket Handle Meniscus Tears in Children and Adolescents

Dennis Kramer, MD;
 Leslie A. Kalish, ScD;
 Mininder S. Kocher, MD, MPH;
 Daniel Martin, BS; Yi-Meng Yen, MD;
 Lyle J. Micheli, MD; Benton E. Heyworth, MD
 Boston Children's Hospital, Boston, MA

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11:09 AM–11:13 AM

The Critical Age for Arthroscopy in Juvenile OCD of the Knee: Is Arthroscopy Necessary at the Time of Drilling?

Samuel C. Willimon, MD;
 Evan Matthew Siegall, MD;
 John R. Faust, MD;
 Mackenzie M. Herzog, MPH;
 Samuel C. Willimon, MD;
Michael T. Busch, MD
 Children's Healthcare of Atlanta/Children's
 Orthopaedics of Atlanta, Atlanta, GA

- 57**
11:14 AM–11:18 AM **Revisions Meniscus Surgery in Children and Adolescents: The Effect of Skeletal Immaturity**
Alvin Shieh; Eric W. Edmonds, MD; Andrew T. Pennock, MD
Rady Children's Hospital, San Diego, CA
- 11:19 AM–11:27 AM Discussion
- 58**
11:28 AM–11:32 AM **Functional Assessment in Tibial Hemimelia (Can We Also Save the Foot in Reconstruction?)**
Mahzad Javid, MD; Gholam Hossain Shahcheraghi
Namazee Hospital, Shiraz, Fars, IRAN
- 59**
11:33 AM–11:37 AM **Extra-Articular Drilling for Adolescents with Osteochondritis Dissecans of the Talus: A Lost Cause or a Call to Develop Better Treatment?**
Joanna H. Roocroft, MA; Lee Garrit Phillips, MD; Joanna Helena Roocroft, MA; Tracey Bastrom, MA; Andrew T. Pennock, MD; Henry G. Chambers, MD; Eric W. Edmonds, MD
Rady Children's Hospital, San Diego, CA
- 60**
11:38 AM–11:42 AM **Patient-Reported Outcomes for Syme vs. Boyd Amputation in Congenital Fibular Deficiency**
Ryan D. Muchow, MD; Jacob Stirton, MD; Daniel Kim; Janet Walker, MD; Henry J. Iwinski, MD; Vishwas R. Talwalkar, MD
Lexington Shriners Hospital for Children, Lexington, KY
- 11:43 AM–11:51 AM Discussion
- 61**
11:52 AM–11:56 AM **Percutaneous Transphyseal Screw Epiphysiodesis: Efficacy and Complications**
Emily Dodwell, MD; Elise Bixby, BA; Kristina Astone, MPH; Roger F. Widmann, MD
Hospital for Special Surgery, New York, NY
- 62**
11:57 AM–12:01 PM **Weight Loss Programs Fail in Obese Children with SCFE and Blount's Disease**
Gregory Ian Pace; William L. Hennrikus Jr., MD
Pennsylvania State University College of Medicine, Hershey, PA
- 63**
12:02 PM–12:06 PM **Mid and Long-Term Outcomes of Patients Undergoing Femoral Lengthening Using the Ilizarov Technique**
Janay McKie, MD; David A. Podeszwa, MD; Augusta Lloyd, MS; Anthony M. Anderson, MS; John G. Birch, MD
Texas Scottish Rite Hospital, Dallas, TX
- 12:07 PM–12:15 PM Discussion

LUNCHTIME BREAKOUT SESSIONS

NOTE: Boxed lunches will be provided only to those registered for the lunchtime breakout sessions.

COUR Symposium

12:30 PM–3:00 PM

Chair: *Coleen S. Sabatini, MD, MPH*

BUILDING CAPACITY THROUGH EDUCATION IN RESOURCE-LIMITED AREAS

- 12:30 PM–12:35 PM **Welcome**
Kit M. Song, MD; Coleen S. Sabatini, MD, MPH
- 12:35 PM–12:50 PM **Context**
David A. Spiegel, MD
- 12:50 PM–1:05 PM **Developing a Sustainable Outreach and Education Program**
Kaye E. Wilkins, MD
- 1:05 PM–1:20 PM **Preparing Oneself as an Educator**
Andrew W. Howard, MD
- 1:20 PM–1:35 PM **Using Technology to Provide Educational Resources Globally**
Lynn T. Staheli, MD
- 1:35 PM–2:10 PM **Panel Discussion**
Speakers and COUR Scholars
- 2:10 PM–3:00 PM **COUR Scholar Presentations**

NP/PA Symposium

12:30 PM–2:00 PM

Co-Chairs: *Jill Ariagno MSN, RN, CPNP; Anne Stuedemann MSN, RN, CPNP*

INNOVATIONS IN PEDIATRIC ORTHOPAEDIC SURGERY

- 12:30 PM–12:45 PM **Presentation I: PRECICE Nail & MAGEC Growing Rods**
Presenter: *John T. Anderson, MD, FAAP*
- 12:45 PM–1:00 PM Discussion
- 1:00 PM–1:15 PM **Presentation II: EOS Imaging System**
Presenter: *Nigel J. Price, MD, FAAP, FRCSC*
- 1:15 PM–1:30 PM Discussion
- 1:30 PM–1:45 PM **Presentation III: Advancement of Telemedicine**
Presenter: *Richard M. Schwend, MD, FAAP*
- 1:45 PM–2:00 PM Discussion

LUNCHTIME BREAKOUT SESSIONS continued

THURSDAY, APRIL 30

Practice Management Symposium

12:30 PM–2:00 PM

Moderator: Kerwyn C. Jones, MD

Discussion: Jeffrey R. Sawyer, MD; Dennis S. Weiner MD; William L. Hennrikus Jr., MD; Andrew Gregory, MD

12:30 PM–12:40 PM **Current Scope of Pediatric Fracture Management in the United States**
Jeffrey R. Sawyer, MD

12:40 PM–1:40 PM **Point/ Counterpoint Panel:**
Model A: Care Provided Only by Pediatric Orthopedic Surgeons
Dennis S. Weiner, MD
Model B: Care Provided by Surgical Practices that Utilize Physician Extenders for Non-Operative Management
William L. Hennrikus Jr., MD
Model C: Care Provided by Surgical Practices that Utilize Primary Care Physician for Non-Operative Management
Andrew Gregory, MD

1:40 PM–2:00 PM **What Do Our Patients Really Want? "The Patient's Perspective"**
Kerwyn C. Jones, MD

Research Symposium

12:30 PM–2:00 PM

Co-Chairs: Firoz Miyanji, MD; Ron El-Hawary, MD; Stefan Parent, MD; Jay Janicki, MD

12:30 PM–12:32 PM **Introduction**
Firoz Miyanji, MD;

Period 1

STUDY DESIGN—IT ALL DEPENDS ON THE QUESTION

Moderator: Firoz Miyanji, MD; Frances A. Farley, MD

12:32 PM–12:39 PM **The Randomized Control Trial—Is it Feasible, Practical, and in the End How Useful is it Really**
James O. Sanders, MD

12:40 PM–12:47 PM **Study Groups—The Evolutionary or Revolutionary Fad: What You Can and What You Cannot Learn from Prospective Databases**
Peter O. Newton, MD

12:49 PM–12:56 PM **Bench to Bedside—Knowledge Translational Research in 2015**
Harry H.W. Kim, MD

12:56 PM–1:00 PM Discussion

Period 2

POSNA SUPPORTED RESEARCH HIGHLIGHTS

Moderators: Ron El-Hawary, MD, MSc, FRCSC; Firoz Miyanji, MD

1:02 PM–1:07 PM **2013 Arthur Huene Memorial Research Award**
Evaluation of Outcomes of Hip Interventions for Children with Cerebral Palsy—An International Multi-Centre Prospective Longitudinal Comparative Cohort Study
Unni G. Narayanan, MD

1:08 PM–1:13 PM **2013 OREF/POSNA Clinical Research Award**
Development and Validation of a Pediatric Activity Scale
Mininder S. Kocher, MD

1:14 PM–1:19 PM **2014 Biomet Spine Research Award**
A New Porcine Model for Pediatric Spinal Deformity
Matthew A. Halanski, MD

1:20 PM–1:25 PM **2013 POSNA Basic Science Research Award**
Genome-Wide Approach to Genetic Causes of Congenital Pseudarthrosis of the Tibia (CPT)
Jonathan J. Rios, MD

1:25 PM–1:30 PM Discussion

1:30 PM–1:40 PM Break

Period 3

GRANT DEVELOPMENT STRATEGIES

Moderators: Ron El-Hawary, MD, MSc, FRCSC; Jay Janicki, MD

1:41 PM–1:48 PM **Opportunities After POSNA: What is Out There?**
Stefan Parent, MD

1:49 PM–1:56 PM **How to Navigate NIH**
Bryan D. Snyder, MD

1:56 PM–2:00 PM Discussion

ICD-10 WORKSHOP

2:15 PM–5:15 PM

Jeffrey R. Sawyer, MD; Margaret M. Maley BSN, MS, KarenZupko & Associates, Inc.

- Clinical Documentation Improvement (CDI)
- Overview of ICD-10 Book
 - Comparing ICD-9 to ICD-10
- What About the Chapter on External Causes?
 - Does it Matter if the Patient was Bit by an Orca or Hit by an Orca?
- ICD-10 Format and Structure
 - Other and Other Specified
 - Includes and Excludes Notes
 - X Place Holder

- Injury, Poisoning and Certain Other Consequences of External Causes
 - Architecture & RE-Organization of the Injury Chapter
 - The “Injury Guy” Coding Aid to Identify the “Category” of Any Injury
- Using the 7th Character Extension for Injuries and Traumatic Fractures
- Technology Tips and Demo
- Classification of Fractures and Fracture Documentation
- Leo C. Far to Master Fracture Documentation
 - Salter Harris Fractures
 - SCFE
- Using the Zupko Slim Guide to Orthopaedic ICD-10
- Congenital Malformations, Deformations and Chromosomal Abnormalities
 - Nervous System
 - Musculoskeletal System
- Diseases of the Musculoskeletal System
 - Architecture and Organization of the Musculoskeletal Chapter
 - The “Musculoskeletal Block”
 - Spine
 - Scoliosis
 - Complications
- REVISED Implementation Guide
 - Understanding What Technology Can Do For You
 - Knowing What You Should Do Next

YOUNG MEMBERS FORUM

5:00 PM–6:30 PM

FIRST ANNUAL ARABELLA LEET YOUNG MEMBERS FORUM

- | | |
|-----------------|--|
| 5:00 PM–5:20 PM | Your On-Line Presence: Projecting Your Best Image On-line, Protecting Your Reputation, Social Media: Use and Abuse
<i>Bryan J. Tompkins, MD</i> |
| 5:20 PM–5:40 PM | Perspectives on Life and Leadership as a Pediatric Orthopaedic Surgeon <ul style="list-style-type: none"> • 12 Points or Steps • Becoming and Staying Involved <i>Lori A. Karol, MD</i> |
| 5:40 PM–6:00 PM | Financial Planning 101 <ul style="list-style-type: none"> • Paying Off Loans • Saving for College and Retirement <i>TBD</i> |
| 6:00 PM–6:30 PM | Discussion
<i>Moderator</i> |

FRIDAY, MAY 1

CLINICAL AWARD PAPERS

Moderator: *Dennis R. Wenger, MD*

eModerator: *Todd A. Milbrandt, MD*

Presider: *Matthew J. Bueche, MD*

- | | |
|------------------------------|---|
| 8:00 AM–8:04 AM | Welcome and Remarks |
| 64
8:05 AM–8:09 AM | Treatment of Congenital Vertical Talus: Comparison of Minimally Invasive vs. Traditional Surgical Technique with Minimum Five-Year Follow-Up
Matthew Dobbs, MD
<i>Washington University School of Medicine, St. Louis, MO</i> |
| 8:10 AM–8:14 AM | Discussion |
| 65
8:15 AM–8:19 AM | The Outcomes of Selective Ultrasound Screening for Developmental Dysplasia of the Hip are No Better Than Clinical Screening Alone: A Cohort Study Using A 40-Year Old Historic Control Group
Anish P. Sanghrajka, FRCS, MBBS, Med;
<i>Fran Sutton; Shiela Lee; Rachael Hutchinson</i>
<i>The Norfolk & Norwich University Hospitals NHS Foundation Trust, Norwich, Norfolk, UK</i> |
| 8:20 AM–8:24 AM | Discussion |
| 66
8:25 AM–8:29 AM | Intramedullary Nailing of Femur Fractures in Preschool Age Children Does Not Improve Radiographic Outcomes vs. Immediate Spica Casting but Does Increase Intervention
Brandon A. Ramo, MD;
<i>Jeffrey E. Martus, MD, MS;</i>
<i>Naureen Ghani Tareen, MPH;</i>
<i>Benjamin Scott Hooe, BA, BS;</i>
<i>Mark Snoddy, MD</i>
<i>Children's Medical Center, Dallas, TX</i> |
| 8:30 AM–8:34 AM | Discussion |
| 67
8:35 AM–8:39 AM | Antibiotic Compliance Decreases Infection Rate in Pediatric Spine Surgery: A Retrospective Cohort Study
Sumeet Garg, MD;
<i>Curtis D. VandenBerg, MD;</i>
<i>Cameron R. Niswander, BA; Patrick Carry;</i>
<i>Zhaoxing Pan; Mark A. Erickson, MD</i>
<i>Children's Hospital Colorado, Aurora, CO</i> |
| 8:40 AM–8:44 AM | Discussion |
| 68
8:45 AM–8:49 AM | Minimizing Complications in Scoliosis Surgery in Children with Cerebral Palsy
M. Wade Shrader, MD;
<i>Mandy Nowlin;</i>
<i>Lee S. Segal, MD; Carla Plantikow, MSc;</i>
<i>Gregory R. White, MD</i>
<i>Phoenix Children's Hospital, Phoenix, AZ</i> |

FRIDAY, MAY 1

8:50 AM–8:54 AM	Discussion
69 8:55 AM–8:59 AM	Training Away Pediatric Cast Saw Burns via Simulation: A Novel Simulation Trainer and Curriculum <i>Donald S. Bae, MD;</i> <i>Jacob W. Brubacher, MD; Jeffrey Karg, MS;</i> <i>Peter Weinstock, MD, PhD</i> <i>Boston Children's Hospital, Boston, MA</i>
9:00 AM–9:04 AM	Discussion
70 9:05 AM–9:09 AM	Long-Term Clinical Follow-Up of Arthroscopic Treatment of Discoid Lateral Meniscus in Children <i>Daniel W. Green, MD;</i> <i>Jonathan Haskel, BS;</i> <i>Tyler J. Uppstrom, BA;</i> <i>David Mountain Dare, MD;</i> <i>Scott Alan Rodeo, MD</i> <i>Hospital for Special Surgery, New York, NY</i>
9:10 AM–9:14 AM	Discussion
71 9:15 AM–9:19 AM	Adolescent Idiopathic Scoliosis Patients Are at Increased Risk for Pulmonary Hypertension Which Reverses After Scoliosis Surgery <i>Terry D. Amaral, MD;</i> <i>Vishal Sarwahi, MD;</i> <i>Aviva Gold Dworkin, BS;</i> <i>Dan Wang, MS;</i> <i>Kathleen Joan Maguire, MD;</i> <i>Sarika Kalantre;</i> <i>Terry D. Amaral, MD</i> <i>Montefiore Medical Center, Bronx, NY</i>
9:20 AM–9:24 AM	Discussion
72 9:25 AM–9:29 AM	The Effect of Compliance Monitoring on Brace Use and Success in Patients with AIS: A Final Report <i>Lori A. Karol, MD;</i> <i>Donald D. Virostek;</i> <i>Kevin Felton CO;</i> <i>Lesley Wheeler, BA</i> <i>Texas Scottish Rite Hospital, Dallas, TX</i>
9:30 AM–9:34 AM	Discussion
73 9:35 AM–9:39 AM	Assessment of Femoral Head Revascularization in Legg-Calvé-Perthes Disease (LCPD) Using Serial Perfusion MRI <i>Harry K.W. Kim, MD;</i> <i>Jamie Kaye Burgess, PhD;</i> <i>Paul Gudmundsson;</i> <i>Alec Thoveson;</i> <i>Molly Dempsey, MD;</i> <i>Chanhee Jo</i> <i>Center for Excellence in Hip Disorders, Texas Scottish Rite Hospital for Children, University of Texas Southwestern Medical Center, Dallas, TX</i>
9:40 AM–9:44 AM	Discussion
9:45 AM–10:05 AM	Break

BASIC SCIENCE AWARD PAPERS

Moderator: Brian D. Snyder, MD, PhD

eModerator: Nancy H. Miller, MD

President: J. Michael Wattenbarger, MD

74 10:06 AM–10:11 AM	Rare Coding Variants in Musculoskeletal Collagen Genes Are Associated with Increased Risk of Adolescent Idiopathic Scoliosis <i>Matthew Dobbs, MD</i> <i>Washington University School of Medicine, St. Louis, MO</i>
75 10:12 AM–10:17 AM	Factors in the Necrotic Bone Stimulate Osteoclast Formation and Inhibit Osteoblast Differentiation Following Ischemic Osteonecrosis of the Femoral Head <i>Harry K.W. Kim, MD;</i> <i>Naga Suresh Adapala, MBBS, PhD;</i> <i>Ryosuke Yamaguchi, MD;</i> <i>Matthew Phipps</i> <i>Center for Excellence in Hip Disorders, Texas Scottish Rite Hospital for Children; University of Texas Medical Center, Dallas, TX</i>
76 10:18 AM–10:23 AM	Combination Sclerostin Antibody and Zoledronic Acid Treatment Outperforms Either Treatment Alone in a Mouse Model of Osteogenesis Imperfecta <i>David G. Little, MBBS;</i> <i>Lauren Peacock;</i> <i>Kathy Mikulec;</i> <i>Tegan Cheng;</i> <i>Aaron Schindeler, PhD;</i> <i>Craig Munns</i> <i>The Children's Hospital at Westmead, Sydney, AUSTRALIA</i>
10:24 AM–10:32 AM	Discussion
77 10:33 AM–10:38 AM	Comparison of Rankl Blockade and Bisphosphonate Therapies in a Growing Mouse Model of OI—Implications of Prolonged Treatment on Bone Health <i>Cathleen L. Raggio, MD;</i> <i>Josephine Marino, MPH;</i> <i>Nancy Pleshko, PhD;</i> <i>Erin M. Carter, MS;</i> <i>Karl J. Jepsen, PhD;</i> <i>Stephen Doty, PhD;</i> <i>Adele L. Boskey, PhD</i> <i>Hospital for Special Surgery, New York, NY</i>
78 10:39 AM–10:44 AM	Meclozine Promotes Longitudinal Bone Growth in Transgenic Achondroplasia Mice with Gain-Of-Function Mutation in FGFR3 Gene <i>Masaki Matsushita, MD;</i> <i>Hiroshi Kitoh, MD;</i> <i>Kenichi Mishima;</i> <i>Naoki Ishiguro, MD</i> <i>Nagoya University Graduate School of Medicine, Nagoya, Aichi, JAPAN</i>
79 10:45 AM–10:50 AM	Evaluation of Periosteal Procedures to Increase Growth <i>Matthew A. Halanski, MD;</i> <i>Tugrul Yildirim, MD;</i> <i>Ellen Leiferman</i> <i>University of Wisconsin, Madison, WI</i>
10:51 AM–10:59 AM	Discussion
11:00 AM–11:12 AM	Introduction of Presidential Speaker
11:13 AM–11:25 AM	Presidential Speaker
11:26 AM–11:29 AM	POSNA Annual Meeting 2016/ Other Announcements
11:30 AM–12:00 PM	Presidential Transfer

Hip Subspecialty Day

Co-Chairs: *Wudbhav N. Sankar, MD; Pablo Castaneda, MD*

Period 1

FREE PAPERS

Moderators: *Wudbhav N. Sankar, MD; Pablo Castaneda, MD*

80

1:00 PM–1:04 PM

Rectus Sparing Approach to Periacetabular Osteotomy in Adolescents Preserves Hip Flexion Strength at Short Term Follow-Up

David A. Podeszwa, MD;
Kirsten Tulchin-Francis, PhD;
Adriana De La Rocha, MS;
Deraan Collins, BS; Daniel J. Sucato, MD, MS
Texas Scottish Rite Hospital for Children,
Dallas, TX

81

1:05 PM–1:09 PM

Motor-Evoked Potentials to Monitor the Sciatic Nerve During Periacetabular Osteotomy

Eduardo V. Novais, MD;
Laurn Ashley Kestel; Kim Strupp;
Patricia Oliver; Willy Boucharel
Children's Hospital Colorado, Aurora, CO

82

1:10 PM–1:14 PM

Demographics and Early Functional Outcomes of Combined Hip Arthroscopy and Periacetabular Osteotomy

Stephanie Watson Mayer, MD;
Benjamin Ricciardi, MD; Kara Fields, MS;
Maureen Suhr, PT; Bryan T. Kelly, MD;
Ernest L. Sink, MD
Hospital for Special Surgery, New York, NY

1:15 PM–1:24 PM

Discussion

83

1:25 PM–1:29 PM

Three-Dimensional CT Analysis Identifies Distinct Variations in Acetabular Morphology in the Dysplastic Hip

Jeffrey J. Nepple, MD;
James Ross, MD; Asheesh Bedi, MD;
Perry L. Schoenecker, MD;
John C. Clohisy, MD
Washington University-School of Medicine,
St. Louis, MO

84

1:30 PM–1:34 PM

Majority of Patients Who Have Confirmed Normal Physical Exam Upon Initial Referral to the Orthopaedic Provider Have No Evidence of Dysplasia Through 2 Years of Age

Daniel J. Sucato, MD, MS;
Terri Beckwith, BA, MPH;
Erica Flores, RN, MSN
Texas Scottish Rite Hospital for Children,
Dallas, TX

85

1:35 PM–1:39 PM

Arthroscopic Treatment of Traumatic Hip Dislocations in Children and Adolescents

Shawn R. Gilbert, MD; *Andrew Morris, MD;*
Jonathon C. Yu; Ashley Reed Estes, MD
University of Alabama at Birmingham,
Birmingham, AL

1:40 PM–1:49 PM

Discussion

86

1:50 PM–1:54 PM

Imaging Overestimates the Screw Tip-Subchondral Bone Distance in Slipped Capital Femoral Epiphysis

Michael Heffernan, MD;
Benjamin M. Snyder, MD; Hanbing Zhou, MD
University of Massachusetts Medical School,
Worcester, MA

87

1:55 PM–1:59 PM

Perioperative Psychological Intervention Contributes to Improved Outcomes of Adolescents Treated With Hip Preservation Surgery

David A. Podeszwa, MD;
Heather M. Richard, PsyD,
Dylan C. Nguyen, MA;
Adriana De La Rocha, MS;
Daniel J. Sucato, MD, MS
Texas Scottish Rite Hospital for Children,
Dallas, TX

88

2:00 PM–2:04 PM

Health-Related Quality of Life Following Staged Containment for Legg-Calve-Perthes Disease

Charles T. Mehlman, DO; Ayesha Yahya;
Junichi Tamai, MD; *Alvin H. Crawford, MD*
Cincinnati Children's Hospital Medical Center,
Cincinnati, OH

89

2:05 PM–2:09 PM

Percutaneous Multi-Planar Subtrochanteric Osteotomy with External Fixation for Developmental Coxa Vara

Sherif Mohammed Hassan Galal, MD, MSc, PHD
Department of Pediatric Orthopedics, Faculty
of Medicine, Cairo University, Cairo, EGYPT

2:10 PM–2:19 PM

Discussion

2:20 PM–2:30 PM

Break

Period 2

APPLYING THE LITERATURE: TOP 5 PAPERS THAT HAVE CHANGED MY PRACTICE

Moderators: *Wudbhav N. Sankar, MD; Pablo Castaneda, MD*

2:30 PM–2:38 PM

FAI

Daniel J. Sucato, MD

2:38 PM–2:42 PM

Technique Video on Arthroscopic CAM Resection

Yi-Meng Yen, MD

2:42 PM–2:50 PM

Infantile DDH

Jose A. Herrera-Soto, MD

2:50 PM–2:54 PM

Technique Slides on Medial Open Reduction

Ira Zaltz, MD

2:54 PM–3:00 PM

Questions

3:00 PM–3:08 PM

SCFE

Ira Zaltz, MD

3:08 PM–3:12 PM

Technique Video on Anterolateral Open Reduction for Unstable SCFE

Perry L. Schoenecker, MD

3:12 PM–3:20 PM

Acute LCPD

David G. Little, MD

FRIDAY, MAY 1

3:20 PM–3:24 PM **Algorithm for Acute LCPD (Early and Late)**
Harry K.W. Kim, MD

3:30 PM–3:45 PM **Hip Cases**
David G. Little, MD; Jose A. Herrera-Soto, MD;
Harry K.W. Kim, MD;
Yi-Meng Yen, MD; Ira Zaltz, MD

3:45 PM–4:00 PM Break

Period 3

SEPTIC HIP AND RELATED TOPICS

Moderators: Wudbhav N. Sankar, MD; Pablo Castaneda, MD

4:00 PM–4:10 PM **Acute Septic Hip and Osteomyelitis**
Travis Matheney, MD

4:10 PM–4:20 PM **Perihip Infections**
Jonathan G. Schoenecker, MD

4:20 PM–4:30 PM **Septic Hip Complications**
Fergal P. Monsell, MD

4:30 PM–5:00 PM **Questions and Septic Hip Cases**
Travis Matheney, MD;
Jonathan G. Schoenecker, MD;
Fergal P. Monsell, MD

Hand Subspecialty Day

When to Phone a Friend: Navigating the Pediatric Upper Extremity

Co-Chairs: Roger Cornwall, MD; Dan A. Zlotolow, MD

Period 1

FREE PAPERS

90

1:00 PM–1:04 PM **Long-Term Functional Outcome of Forearm Rodding in Children with Osteogenesis Imperfecta**
Elizabeth Ashby, MRCS;
Reggie C. Hamdy, MD; Francois Fassier, MD
Shriners Hospital, Montreal, QC, CANADA

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1:05 PM–1:09 PM **Long-Term Functional Outcome of Humeral Rodding in Children With Osteogenesis Imperfecta**
Elizabeth Ashby, MRCS;
Reggie C. Hamdy, MD; Francois Fassier, MD
Shriners Hospital, Montreal, QC, CANADA

92

1:10 PM–1:14 PM **Combined Elbow Release and Humeral Rotational Osteotomy in Arthrogryposis**
Rey N. Ramirez, MD;
Dominic T. Gomez-Leonardelli, MD;
Scott H. Kozin, MD; **Dan A. Zlotolow, MD**
Shriners Hospital of Philadelphia,
Philadelphia, PA

1:15 PM–1:24 PM Discussion

93

1:25 PM–1:29 PM

Multi-Center Evaluation of Pediatric Supracondylar Humerus Fracture Practice Patterns Based on the ABOS Performance Improvement Questionnaire

Christopher A. Iobst, MD;

Steven L. Frick, MD; Deirdre Dunn Ryan, MD
Nemours Children's Hospital, Orlando, FL

94

1:30 PM–1:34 PM

The Utility of Postoperative Radiographs After Pinning of Pediatric Supracondylar Humerus Fractures

Todd A. Milbrandt, MD;

Philip A. Ashley, MD;
Jacob McEachern Stanfield, MD;
Laura Blumm; Henry J. Iwinski, MD;
Vishwas R. Talwalkar, MD;
Janet Walker, MD; Ryan D. Muchow, MD
University of Kentucky Department of Orthopaedic Surgery, Lexington, KY

95

1:35 PM–1:39 PM

Annular Ligament Reposition Instead of Reconstruction on the Management of Missed Monteggia Fractures

Xuemin Lu, MD, PhD

Beijing Jishuitan Hospital, Beijing, CH

1:40 PM–1:49 PM

Discussion

96

1:50 PM–1:54 PM

Tendon Transfers for C5-7 Brachial Plexus Birth Palsy Patients: Is One Tendon Enough?

Joshua M. Abzug, MD; Xuyang Song,

Elie Miller, BS; Dan A. Zlotolow, MD;

Scott H. Kozin, MD

University of Maryland School of Medicine,
Baltimore, MD

97

1:55 PM–1:59 PM

Ulnar Distraction Osteogenesis for Treatment of Ulnar Based Forearm Deformities in Multiple Hereditary Exostoses

Stephen Refsland, MD; Scott H. Kozin, MD;

Dan A. Zlotolow, MD

Shriners Hospitals for Children,
Philadelphia, PA

98

2:00 PM–2:04 PM

Soft-Tissue Release with Bilobed Flap for the Treatment of Severe Wrist Deformity in Radial Deficiency: Does Not Affect Ulna Growth

Carley Vuillermin, MBBS, FRACS;

Lesley Wheeler, BA; Scott Oishi, MD;

Marybeth Ezaki, MD

Texas Scottish Rite Hospital for Children,
Dallas, TX

99

2:05 PM–2:09 PM

Functional Workspace of Normal and Reconstructed Hypoplastic Thumbs

Michelle A. James, MD;

Mitell Sison-Williamson, MS;

Anita Bagley, PhD

Shriners Hospital for Children Northern California, Sacramento, CA

2:10 PM–2:19 PM

Discussion

2:20 PM–2:30 PM

Break

Period 2**CONGENITAL/ACQUIRED****Moderator:** *Dan A. Zlotolow, MD***Hand****Panel:** *Douglas T. Hutchinson, MD; Peter M. Waters, MD; Allan E. Peljovich, MD*

- 2:30 PM–2:40 PM **Trigger Thumb/Finger**
Douglas T. Hutchinson, MD
- 2:40 PM–2:50 PM **Syndactyly, Polydactyly**
Peter M. Waters, MD
- 2:50 PM–3:00 PM **Cleft Hand, Symbrachydactyly**
Allan E. Peljovich, MD
- 3:00 PM–3:05 PM Transition

Forearm/Elbow**Panel:** *Suzanne E. Steinmann, MD; Scott Oishi, MD; Charles Goldfarb, MD*

- 3:05 PM–3:15 PM **Madelung**
Suzanne E. Steinmann, MD
- 3:15 PM–3:25 PM **MHE**
Scott Oishi, MD
- 3:25 PM–3:35 PM **Radial Deficiency**
Charles Goldfarb, MD
- 3:35 PM–3:45 PM **Arthrogryposis**
Dan A. Zlotolow, MD
- 3:45 PM–4:00 PM Break

Period 3**TRAUMA/NERVE****Moderator:** *Roger Cornwall, MD***Trauma****Panel:** *Donald S. Bae, MD; Robert B. Carrigan, MD; Joshua Ratner, MD; Joshua M. Abzug, MD*

- 4:00 PM–4:10 PM **Elbow Malunions, OCD**
Donald S. Bae, MD
- 4:10 PM–4:20 PM **Monteggia/Galeazzi/TFCC**
Robert B. Carrigan, MD
- 4:20 PM–4:30 PM **Distal Radius Growth Arrest**
Joshua Ratner, MD
- 4:30 PM–4:40 PM **Hand Fractures, Tendon Injuries**
Joshua M. Abzug, MD
- 4:40 PM–4:45 PM Transition

Nerve**Panel:** *Roger Cornwall, MD; Allan E. Peljovich, MD; Peter M. Waters, MD*

- 4:45 PM–4:55 PM **Brachial Plexus**
Roger Cornwall, MD
- 4:55 PM–5:05 PM **CP/TBI**
Allan E. Peljovich, MD
- 5:05 PM–5:15 PM **Peripheral Nerve Injuries**
Peter M. Waters, MD

Neuromuscular/Lower Extremity Subspecialty Day**Co-Chairs:** *Michelle S. Caird, MD; Jon R. Davids, MD***Period 1****Moderators:** *Frances A. Farley, MD; Jon R. Davids, MD*

- 1:00 PM–2:15 PM Lectures
- 1:00 PM–1:10 PM **Outcome Assessment in GMFCS IV and V: CP Child Questionnaire**
Unni G. Narayanan, MD
- 1:10 PM–1:15 PM Discussion
- 1:15 PM–1:25 PM **Hip Surveillance for Children with CP**
Benjamin J. Shore, MD
- 1:25 PM–1:30 PM Discussion
- Master Techniques**
- 1:30 PM–1:40 PM **Dega vs. Pemberton Pelvic Osteotomy: How I Choose/Do Them**
Kirk W. Dabney, MD
- 1:40 PM–1:45 PM Discussion
- 1:45 PM–1:55 PM **Surgical Management of the Equinoplanovalgus Foot in Children with CP**
Jon R. Davids, MD
- 1:55 PM–2:00 PM Discussion
- 2:00 PM–2:10 PM **Surgery to Improve Gait in Children with Myelodysplasia**
Deidre D. Ryan, MD
- 2:10 PM–2:15 PM Discussion
- 2:15 PM–2:30 PM Break

Period 2**Moderators:** *Frances A. Farley, MD; Jon R. Davids, MD***100**

- 2:30 PM–2:34 PM **Health Related Quality of Life and Caregiver Impact Following Orthopaedic Surgery in Children with Severe Cerebral Palsy**
Brian D. Snyder, MD, PhD; Rachel L. DiFazio, MS, RN, CPNP; Judith Anne Vessey, PhD; David Zurakowski, PhD
Boston Children's Hospital, Boston, MA

101

- 2:35 PM–2:39 PM **Helping Families Make Difficult Choices: Implementation of a Decision Aid for Neuromuscular Scoliosis Surgery**
Eric D. Shirley, MD; Catharine Clay; Carolina Bejarano; Lindsay Fuzzell; Sharon Leonard
Nemours Children's Clinic, Jacksonville, FL

102

- 2:40 PM–2:44 PM **A Long Term Follow-Up of Young Adults with Idiopathic Clubfeet Using Pedobarography: Does Foot Shape Matter?**
Peter A. Smith, MD; Adam Graf, MS; Sahar Hassani, MS; Joseph Krzak, PT; Ann Flanagan, PT, PCS; Gerald Harris, MD
Shriners Hospitals for Children, Chicago, IL

FRIDAY, MAY 1

- 2:45 PM–2:54 PM Discussion
- 103**
2:55 PM–2:59 PM **Identification of Gait Pathologies in Children with Spina Bifida and the Role of Gait Analysis**
Deirdre D. Ryan, MD; Bitte S. Healy, PT; Sylvia Ounpuu, MS; Jeffrey D. Thomson, MD; Nicole Mueske, MS; Pauline Yasmeh, BA; Tishya Wren, PhD
Children's Hospital Los Angeles, Los Angeles, CA
- 104**
3:00 PM–3:04 PM **Recurrence of Knee Flexion Deformity After Hamstrings Surgical Lengthening—Can Semitendinosus Transfer Improve the Results?**
Mauro Cesar Morais Filho, MD; Marcelo Hideki Fujino; Cátia M. Kawamura, PT; Francesco Camara Blumetti, MD; Carlos Alberto Santos, MD; Jose Augusto Fernandes Lopes, MSc; Daniella Neves
AACD, São Paulo, BRAZIL
- 105**
3:05 PM–3:09 PM **The Effect of Selective Motor Branch Block of The Rectus Femoris as Indication for Transfer of the Muscle**
Stig Sonne-holm; Curtis J. Derek; Bencke Jesper; Hanne Boch Lauridsen; Billy Kristensen
Hvidovre University Hospital, Copenhagen, DENMARK
- 3:10 PM–3:19 PM Discussion
- 106**
3:20 PM–3:24 PM **The Pros and Cons of Operating Early vs. Late in the Progression of CP Scoliosis**
Steven M. Hollenbeck, MD; Burt Yaszay, MD; Paul D. Sponseller, MD; Suken A. Shah, MD; Jahangir Asghar, MD; Mark F. Abel, MD; Firoz Miyanji, MD; Peter O. Newton, MD
Rady Children's Hospital, San Diego, CA
- 107**
3:25 PM–3:29 PM **Respiratory and Radiographic Effects of Growing Rods in Children with Spinal Muscular Atrophy**
Matthew A. Halanski, MD; Rachel L. Lenhart, MS; Sylvester Youlo, MD; Kenneth J. Noonan, MD; James J. McCarthy, MD; David C. Mann, MD; Mary Schroth, MD
University of Wisconsin Hospitals & Clinics, Madison, WI
- 108**
3:30 PM–3:34 PM **Rate of Lower Limb Angular Correction in 8-Plate Hemiepiphyodesis in Children with Varying Skeletal Pathologies**
Andrea Yeo, MD; Claire Richards, MD; Deborah Eastwood, FRCS, MD
Great Ormond Street Hospital, London, UK

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3:35 PM–3:39 PM

Clinical Outcome of the Lower Limb Lengthening Using Culture-Expanded Bone Marrow Cells and Platelet Rich Plasma*Hiroshi Kitoh, MD; Kenichi Mishima; Masaki Matsushita, MD; Naoki Ishiguro, MD*
Nagoya University Graduate School of Medicine, Nagoya, Aichi, JAPAN

3:40 PM–3:49 PM

Discussion

3:50 PM–4:00 PM

Break

Period 3**Moderators:** *Frances A. Farley, MD; Jon R. Davids, MD*

4:00 PM–4:10 PM

Techniques for Assessment of Skeletal Maturity (Elbow, Hand, Pelvis, and Calcaneus)*James O. Sanders, MD*

4:10 PM–4:15 PM

Discussion

4:15 PM–4:25 PM

Lower Extremity Alignment Surgery for Children with Skeletal Dysplasias—Who, What, When, and How*Klane K. White, MD*

4:25 PM–4:30 PM

Discussion

4:30 PM–4:40 PM

Treatment of Exotic Tarsal Coalitions: Beyond Calcaneonavicular Coalitions*Samantha A. Spencer, MD*

4:40 PM–4:45 PM

Discussion

Master Techniques

4:50 PM–5:00 PM

Guided Growth: Staples, Plates, and Screws (How I Choose/Do Them)*John E. Herzenberg, MD*

5:00 PM–5:05 PM

Discussion

5:05 PM–5:15 PM

Vitamin D in Pediatric Orthopaedics*David G. Little, MD***Spine Subspecialty Day****Period 1****DEBATES****Moderator:** *Burt Yaszay, MD; Suken A. Shah, MD***AIS—Treatment of Moderate Curves**

1:03 PM–1:08 PM

Tethering is Best*Peter O. Newton, MD*

1:08 PM–1:13 PM

I Would Staple That*Randal R. Betz, MD*

1:13 PM–1:18 PM

Bracing is a Tried and True Method*Lori A. Karol, MD***Noninvasive Lengthening Methods for the Growing Spine**

1:19 PM–1:26 PM

Pro—The Paradigm Shift Allows Us to Do More Growing Rods*Behrooz A. Akbarnia, MD*

1:26 PM–1:33 PM

Con—This Doesn't Change a Thing*James O. Sanders, MD***The Young Spastic Patient with a Large Curve**

1:34 PM–1:39 PM

This Patient Needs an Early Fusion*Mark F. Abel, MD*

1:39 PM–1:44 PM	This Patient Would Best be Served by Growing Rods <i>David L. Skaggs, MD</i>
1:44 PM–1:49 PM	Late Treatment Would be the Most Appropriate <i>Firoz Miyanji, MD</i>
1:50 PM–2:15 PM	Debate Case Presentations/ Panel Discussion–Panel: <i>Anthony A. Scaduto, MD;</i> <i>Peter F. Sturm, MD; Matthew Oetgen, MD;</i> <i>Michael G. Vitale, MD</i>
2:15 PM–2:30 PM	Break
Period 2	
FREE PAPERS	
Moderators: <i>Patrick J. Cahill, MD; A. Noelle Larson, MD</i>	
110	
2:30 PM–2:34 PM	Parallel Proximal Fixation in Rib Based Growing Rod System: A Novel Approach to Deal with Proximal Hook Migration <i>John Alexander Heflin, MD;</i> <i>Norman F. Ramirez-Lluch, MD;</i> <i>Michelle Cameron Welborn, MD;</i> <i>Ivan Iriarte, MD, MS; Tricia St. Hilaire, MPH;</i> <i>John T. Smith, MD;</i> <i>Children's Spine Study Group</i> <i>Primary Children's Hospital,</i> <i>Salt Lake City, UT</i>
111	
2:35 PM–2:39 PM	Age at Initiation and Deformity Magnitude Influence Complication Rates of Surgical Treatment with Dual Growing Rods in Early Onset Scoliosis <i>Vidyadhar V. Upasani, MD;</i> <i>Kevin Parvaresh, MD; Jeff Pawelek, MD;</i> <i>Patricia Miller, MS;</i> <i>George H. Thompson, MD;</i> <i>David Lee Skaggs, MD; John B. Emans, MD;</i> <i>Michael P. Glotzbecker, MD;</i> <i>Growing Spine Study Group</i> <i>Rady Children's Hospital, San Diego, CA</i>
112	
2:40 PM–2:44 PM	Proximal Junctional Kyphosis Associated with Magnetically Controlled Growing Rod Surgery <i>Jeff Pawelek, MD;</i> <i>Kenneth M.C. Cheung, MD;</i> <i>Kenny Kwan, FRCS;</i> <i>John Alexander Ferguson, FRACS;</i> <i>Colin Nnadi, MBBS, FRCS;</i> <i>Ahmet Alanay, MD; Muharrem Yazici, MD;</i> <i>Gokhan Halil Demirkiran, MD;</i> <i>Ilkka Helenius, MD;</i> Behrooz A. Akbarnia, MD <i>Queen Mary Hospital,</i> <i>The University of Hong Kong, Hong Kong SAR</i>
2:45 PM–2:54 PM	Discussion

113	
2:55 PM–2:59 PM	Correction of Pelvic Obliquity After Spinopelvic Fixation in Cerebral Palsy Patients: A Comparison Study Suken A. Shah, MD; <i>Oussama Aousamra, MD;</i> <i>Tristan Nishnianidze Sr., MD, PhD;</i> <i>Kenneth J. Rogers, PhD;</i> <i>Ilhan Avni Bayhan, MD; Petya Yorgova, MS</i> <i>Nemours/Alfred I. duPont Hospital for Children, Wilmington, DE</i>
114	
3:00 PM–3:04 PM	Performing a Definitive Fusion in Juvenile CP Patients is a Good Surgical Option Burt Yaszay, MD; <i>Paul D. Sponseller, MD;</i> <i>Suken A. Shah, MD; Jahangir Asghar, MD;</i> <i>Firoz Miyanji, MD; Amer Samdani, MD;</i> <i>Carrie Bartley, MA; Peter O. Newton, MD</i> <i>Rady Children's Hospital, San Diego, CA</i>
115	
3:05 PM–3:09 PM	Rigid Fixation Improves Outcomes of Spinal Fusion for C1-C2 Instability in Children with Skeletal Dysplasias Ilkka Helenius, MD; <i>Haemish Alexander Crawford, MBChB, FRACS;</i> <i>Paul D. Sponseller, MD;</i> <i>Thierry Alphonse Odent;</i> <i>Robert M. Bernstein, MD;</i> <i>Anthony A. Stans, MD;</i> <i>Daniel Hequist; Jonathan H. Phillips, MD</i> <i>Department of Paediatric Orthopaedic Surgery, Turku University Central Hospital, Turku, FINLAND</i>
116	
3:20 PM–3:24 PM	Delay to Surgery Greater Than 6 Months Leads to Significant Deformity Progression in Risser 0, Pre-Menarchal Adolescent Idiopathic Scoliosis (AIS) Patients: A Retrospective Cohort Study Brandon A. Ramo, MD; <i>Dong-Phuong Tran, MS;</i> <i>Sumeet Garg, MD; Mark A. Erickson, MD;</i> <i>Anil Reddy, BS; Cameron R. Niswander, BA;</i> <i>Kaitlyn Brown, BS</i> <i>Texas Scottish Rite Hospital, Dallas, TX</i>
117	
3:25 PM–3:29 PM	Minimally Invasive Surgery in Adolescent Idiopathic Scoliosis: Lessons Learned at Mean Two-Year Follow-Up Firoz Miyanji, MD; <i>Michael Nitikman;</i> <i>Sameer Desai, BS</i> <i>British Columbia Children's Hospital, Vancouver, BC, CANADA</i>
118	
3:30 PM–3:34 PM	The Effects of The Three-Dimensional Deformity of Adolescent Idiopathic Scoliosis on Pulmonary Function Burt Yaszay, MD; <i>Tracey Bastrom, MA;</i> <i>Carrie Bartley, MA; Stefan Parent, MD;</i> <i>Peter O. Newton, MD</i> <i>Rady Children's Hospital, San Diego, CA</i>

FRIDAY, MAY 1

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3:35 PM–3:39 PM

Relationship Between Seat Restraints and Thoracolumbar Fracture Patterns in Pediatric Occupants in Motor Vehicle Crashes**Chirag A. Berry, MD;**
Narayan Yoganandan, MD; Raj D. Rao, MD
Medical College of Wisconsin, Milwaukee, WI

3:40 PM–3:49 PM

Discussion

3:50 PM–4:00 PM

Break

Period 3**Moderator:** Burt Yaszay, MD; Suken A. Shah, MD**What is The Evidence?**

4:00 PM–4:07 PM

Halo-Gravity Traction is Safe and Effective
Charles E. Johnston II, MD

4:08 PM–4:15 PM

Treatment of Neuromuscular Scoliosis Improves Quality of Life
Paul D. Sponseller, MD

4:16 PM–4:23 PM

Reduction and Instrumented Fusion is the Best Treatment for High Grade Spondylolisthesis
Harry L. Shufflebarger, MD

4:24 PM–4:31 PM

Understanding AIS in 3D is Essential to the Operative Treatment of AIS
Stefan Parent, MD**Pediatric Cervical Spine**

4:32 PM–4:39 PM

Treatment of Cervico-Thoracic Scoliosis
John B. Emans, MD

4:40 PM–4:47 PM

Occipital-Cervical Instability—Management Strategies
Jonathan Phillips, MD

4:48 PM–5:05 PM

Pediatric Cervical Trauma—Is There a Best Practice?
Martin J. Herman, MD

5:05 PM–5:15 PM

Case Presentations/Panel Discussion
Panel: John B. Emans, MD;
Jonathan Phillips, MD;
Martin J. Herman, MD;
William G. Mackenzie, MD**Sports Subspecialty Day—ACL “Mini-Fellowship”****Period 1**

1:00 PM–1:30 PM

45 Years with the ACL Lessons Learned
John A. Bergfeld, MD

1:30 PM–1:35 PM

How I Do It—BTB Autograft
John D. Polousky, MD

1:35 PM–1:40 PM

How I Do It—Hamstring Autograft
M. Lucas Murnaghan, MD

1:40 PM–1:45 PM

How I Do It—All-Epiphyseal
Theodore J. Ganley, MD

1:45 PM–1:50 PM

How I Do It—ITB
Mininder S. Kocher, MD

1:50 PM–1:55 PM

Risk Factors for Re-Injury
Kevin G. Shea, MD

1:55 PM–2:00 PM

Strategies for Revision
Benton E. Heyworth, MD

2:00 PM–2:15 PM

Discussion

2:15 PM–2:30 PM

Break

Period 2**ACL—COMPLEX CASE PRESENTATION / DISCUSSION**

2:30 PM–2:40 PM

Gender-Based Differences in Adolescent Sports Injuries
Cordelia W. Carter, MD

2:40 PM–3:45 PM

Complex and Revision Cases—Presentation and Discussion of Surgical Strategy
John G. Bergfeld, MD;
Michael T. Busch, MD;
Theodore J. Ganley, MD;
Benton E. Heyworth, MD;
Mininder S. Kocher, MD;
M. Lucas Murnaghan, MD;
John D. Polousky, MD; Kevin G. Shea, MD

3:45 PM–4:00 PM

Break

Period 3**FREE PAPERS****Moderator:** Michael T. Busch, MD

120

4:00 PM–4:04 PM

MRI Evaluation of the Epiphyseal Vascular Supply—Insights into the Etiology of Knee OCD
Kevin G. Shea, MD; Jutta Ellermann;
Mikko J. Nissi, PhD; Luning Wang, PhD;
Ferenc Toth, DVM, PhD;
John D. Polousky, MD; Cathy S. Carlson
University of Minnesota,
Minneapolis/St. Paul, MN

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4:05 PM–4:09 PM

Catcher's Knee: OCD of the Knee in Baseball and Softball Catchers
Mininder S. Kocher, MD, MPH;
Mark J. McElroy, BS, MS;
Patrick M. Riley, Jr, MD
Boston Children's Hospital, Boston, MA

122

4:10 PM–4:14 PM

The Use of Bone Marrow Concentrate and Demineralized Bone Matrix in the Treatment of Osteochondritis Dissecans
Paul R. Fleissner, MD
Crystal Clinic Orthopedic Center, Akron, OH

4:15 PM–4:24 PM

Discussion

123

4:25 PM–4:29 PM

Pediatric ACL Injury is Associated with Increased Lateral Tibial Slope: A Case-Control Study with MRI Measurements of 152 Patients
Peter D. Fabricant, MD, MPH;
David Mountain Dare, MD;
Moir Margaret McCarthy, MD;
Brian Rebolledo, MD; Frank A. Cordasco, MD;
Daniel W. Green, MD;
Hospital for Special Surgery, New York, NY

124

4:30 PM–4:34 PM

Complications Associated with All-Epiphyseal ACL Reconstruction in Skeletally Immature Patients

Aristides I. Cruz Jr, MD;

Michael McGraw, MD;

Peter D. Fabricant, MD, MPH;

Lawrence Wells, MD

Children's Hospital of Philadelphia, Philadelphia, PA

125

4:35 PM–4:39 PM

Does the Surgical Delay Before an Anterior Cruciate Ligament Reconstruction in Adolescents Affect the Quality of Life at a Minimum of Two Years Follow-Up?

Panagiotis Glavas, MD;

Marie-Lyne Nault, MD;

Panagiotis Glavas, MD; Guy Grimard, MD

Sainte-Justine University Hospital Center Montreal, QC, CANADA

4:40 PM–4:49 PM

Discussion

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4:50 PM–4:54 PM

Outcomes of Operatively Treated Non-Unions and Symptomatic Mal-Unions of Adolescent Diaphyseal Clavicle Fractures

Benton E. Heyworth, MD;

Sasha Carsen, MD, MBA;

Donald S. Bae, MD;

Mininder S. Kocher, MD, MPH;

Peter M. Waters, MD;

Kyna Silvana Donohue;

Benton E. Heyworth, MD

Boston Children's Hospital, Boston, MA

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4:55 PM–4:59 PM

Medial Patellofemoral Ligament (MPFL) Reconstruction with Hamstring Autograft Improves Patella Alta in Children

Peter D. Fabricant, MD, MPH;

Hannah Noemi Ladenhauf, MD; Eduardo

Agustin Salvati, MD;

Daniel W. Green, MD

Hospital for Special Surgery, New York, NY

128

5:00 PM–5:04 PM

Does Isolated Gastrocnemius Tightness Predispose Children to Lower Extremity Injury?

Raymond W. Liu, MD;

Katherine K. Xie, BS

Rainbow Babies and Children's Hospitals at

Case Western Reserve University,

Cleveland, OH

129

5:05 PM–5:09 PM

Assessment of Side-Step Cutting in Pediatric Athletes with Recent ACL Reconstruction Compared to Those with No ACL Surgical History

James Lee Pace, MD; Nicole Mueske, MS;

Tracy Zaslow, MD; Mia Katzel;

Matthew C. Chua, PhD; Tishya Wren, PhD

Children's Hospital Los Angeles,

Los Angeles, CA

5:10 PM–5:19 PM

Discussion

SATURDAY, MAY 2

TRAUMA

Moderator: Susan A. Scherl, MD

eModerator: Jeffrey E. Martus, MD

Presider: Christine A. Ho, MD

8:00 AM–8:04 AM

Welcome and Remarks

130

8:05 AM–8:09 AM

Flexible Intramedullary Nails for Femur Fractures in Pediatric Patients Heavier Than 100 Pounds

Anthony Riccio, MD; James S. Shaha, MD;

Jason M. Gage, DO; Sheena R. Black, MD;

Steve Shaha; Robert Lane Wimberly, MD

Children's Medical Center, Dallas, TX

131

8:10 AM–8:14 AM

Titanium Elastic Nailing for Pediatric Tibia Fractures: Do Older, Heavier Kids Do Worse?

Wudbhav N. Sankar, MD;

Christine Goodbody, BA;

Rushyuan Jay Lee, MD;

John (Jack) M. Flynn, MD

Children's Hospital of Philadelphia of

Philadelphia, Philadelphia, PA

132

8:15 AM–8:19 AM

Physeal Bar Formation After Pediatric Medial Malleolus Fractures

Matthew D. Abbott, MD;

Anthony I. Riccio, MD;

Robert Lane Wimberly, MD;

Philip L. Wilson, MD

Texas Scottish Rite Hospital for Children and

Children's Medical Center, Dallas, TX

8:20 AM–8:28 AM

Discussion

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8:29 AM–8:33 AM

Closed Reduction and Percutaneous Pinning vs. Open Reduction Internal Fixation of Midly Displaced Humeral Lateral Condyle Fractures

Andrew T. Pennock, MD;

Lisette Salgueiro MD;

Vidyadhar V. Upasani, MD;

Tracey Bastrom, MA; Burt Yaszay, MD

Rady Children's Hospital, San Diego, CA

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8:34 AM–8:38 AM

Outcomes of ORIF More Than Seven Days After Injury in Displaced Pediatric Lateral Condyle Fractures

Mauricio Silva, MD; Alejandro Paredes;

Angela Cha, NP

Orthopaedic Institute for Children,

Los Angeles, CA

SATURDAY, MAY 2

- 135**
8:39 AM–8:43 AM **Rate and Risk Factors for Delayed Healing Following Surgical Treatment of Lateral Condyle Humerus Fractures in Children**
Joanna H. Roocroft, MA; Lisette Salgueiro, MD; Joanna Helena Roocroft, MA; Tracey Bastrom, MA; Eric W. Edmonds, MD; Andrew T. Pennock, MD; Vidyadhar V. Upasani, MD; Burt Yaszay, MD
Rady Children's Hospital, San Diego, CA
- 8:44 AM–8:52 AM Discussion
- 136**
8:53 AM–8:57 AM **Pathologic Arterial Changes in Neurovascularly Intact Gartland III Supracondylar Humerus Fractures**
Christine A. Ho, MD; David A. Podeszwa, MD; Anthony I. Riccio, MD; Robert Lane Wimberly, MD; Brandon A. Ramo, MD; Mary Yang, MD; Surekha Patel, MSc
Children's Medical Center, Dallas, TX
- 137**
8:58 AM–9:02 AM **Fracture Classification Predicts Functional Outcomes in Supracondylar Humerus Fractures: A Prospective Study**
Anthony I. Riccio, MD; Justin J. Ermat, MD; Robert Lane Wimberly, MD; David A. Podeszwa, MD; William T. Gheen, BA; Christine A. Ho, MD
Texas Scottish Rite Hospital for Children, Dallas, TX
- 138**
9:03 AM–9:07 AM **Recovery of Motor Nerve Injuries Associated with Displaced, Extension-Type Pediatric Supracondylar Humerus Fractures**
Bryce T. Gillespie, MD; Benjamin J. Shore, MD, FRCSC; Patricia Miller, MS; Donald S. Bae, MD; Peter M. Waters, MD
Boston Children's Hospital, Boston, MA
- 9:08 AM–9:16 AM Discussion
- 139**
9:17 AM–9:21 AM **Is Timing of Surgery of Paediatric Supracondylar Fractures Related to Pinning Errors or Complications?**
Luis Moraleda Novo, MD, PHD; Maria Valencia, MD; Jesus Diez
Hospital Universitario La Paz, SPAIN
- 140**
9:22 AM–9:26 AM **Cervical Spine Clearance in Pediatric Trauma Centers: The Need for Standardization and an Evidence-Based Protocol**
Martin J. Herman, MD; Mitesh Shah, MD; Pediatric Cervical Spine Study Group
NA Drexel University College of Medicine and St. Christopher's Hospital for Children, Philadelphia, PA

141

9:27 AM–9:31 AM

Functional Outcomes Following Non-Operative vs. Operative Treatment of Clavicle Fractures in Adolescents

Samuel Clifton Willimon, MD; Mackenzie M. Herzog, MPH; Rebecca Whitesell, MD; Lisa M. Mac, MPH; Morgan Lee Jackson; Brad Anthony Culotta, MD; Jed Axelrod, MD; Michael T. Busch, MD
Children's Healthcare of Atlanta/Children's Orthopaedics of Atlanta, Atlanta, GA

9:32AM–9:40AM

Discussion

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9:41 AM–9:45 AM

Displaced Medial Epicondyle Fractures in Children: Comparative Effectiveness of Operative vs. Non-Operative Treatment

Charles T. Mehlman, DO; Emily Mayer, BS; Emily A. Eismann, MS
Cincinnati Children's Hospital Medical Center, Cincinnati, OH

143

9:46 AM–9:50 AM

Direction of Displacement is the Strongest Predictor of the Need for Open Reduction in a Cohort of Pediatric Patients Undergoing Operative Treatment For Supracondylar Humerus Fractures

Sayan De, MD; Bryan Mark; Patrick Carry; Eduardo V. Novais, MD; Nancy H. Miller, MD
Children's Hospital Colorado, Aurora, CO

144

9:51 AM–9:55 AM

Radiographic Evaluation and Management of the Toddler's Fracture

Paul Switaj, MD; John J. Grayhack, MD; Daniel M. Dean, BS; Pat Sweeney, BA; Rachel E. Mednick, MD; Paul Switaj, MD
Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

9:56 AM–10:04 AM

Discussion

10:05 AM–10:25 AM

Break

NEUROMUSCULAR/CONGENITAL

Moderator: Henry (Hank) G. Chambers, MD**eModerator:** Cathleen L. Raggio, MD**Presider:** Klane K. White, MD

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10:26 AM–10:30 AM

Recurrence After Femoral Derotation Osteotomy in Ambulatory Youth with Cerebral Palsy

Freeman Miller, MD; Chris Church, PT; Nancy Lennon, PT; Kevin Gerard Pineault; Timothy Niiler, PhD; John D. Henley, PhD; Oussama Abousamra, MD; Kirk W. Dabney, MD
Alfred I. duPont Hospital for Children, Wilmington, DE

146

10:31 AM–10:35 AM

Reorientational Proximal Femoral Osteotomies for Arthrogrypotic Hip Contractures**Harold J.P. van Bosse, MD;**
Roger E. Saldana, MD
Shriners Hospital for Children,
Philadelphia, PA

147

10:36 AM–10:40 AM

Results of Early Hip Reconstructive Surgery in Severely Involved Children with Cerebral Palsy**Paul M. Caskey, MD;** Glen O. Baird, MD;
Bryan J. Tompkins, MD;
William E. Bronson, MD;
Mark McMullin, PhD; Betsey K. Bean, DO
Shriners Hospitals for Children, Spokane, WA

10:41 AM–10:49 AM

Discussion

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10:50 AM–10:54 AM

Correction of Tibial Torsion in Children with Cerebral Palsy by Isolated Distal Tibia Osteotomy: An Anatomic Study**Jon R. Davids, MD;**
Emily M. Andrisevic, MD;
David Elbert Westberry, MD;
Linda Pugh, RN; Anita Bagley, PhD; Stephanie
Lewis Tanner, MS
Shriners Hospital for Children,
Sacramento, CA

149

10:55 AM–10:59 AM

Measuring Physical Function in Children with Cerebral Palsy Using Computer Adaptive Testing (PEDI-CAT)**Benjamin J. Shore, MD, MPH, FRCSC;**
Benjamin Allar, BA; Patricia Miller, MS;
Travis H. Matheney, MD;
Brian Snyder, MD, PhD;
Maria Fragala-Pinkham PT, DPT, MS
Boston Children's Hospital, Boston, MA

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11:00 AM–11:04 AM

Surgical Outcomes of Valgus Extension Derotation Osteotomy (VEDO) of the Hip in Children with Spondyloepiphyseal Dysplasia Congenita: Midterm Results**William G. Mackenzie, MD;**
Ilhan Avni Bayhan, MD;
Tristan Nishnianidze, MD;
Kenneth J. Rogers, PhD;
Oussama Abousamra, MD;
Michael Bober, MD, PhD; Freeman Miller, MD
Nemours/Alfred I. duPont Hospital for
Children, Wilmington, DE

11:05 AM–11:13 AM

Discussion

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11:14 AM–11:18 AM

Simultaneous Bilateral Femoral and Tibial Lengthening in Patients with Achondroplasia**Lior Shabtai, MD;** Shawn C. Standard, MD;
John E. Herzenberg, MD
International Center for Limb Lengthening,
Rubin Institute for Advanced Orthopedics,
Sinai Hospital, Baltimore, MD

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11:19 AM–11:23 AM

Outcomes of Multi-Level Surgery with and Without External Femoral Derotation Osteotomy in Children with Cerebral Palsy**Glen O. Baird, MD;** Mark McMullin, PhD;
Andi Gordon, PT; Paul M. Caskey, MD;
Bryan J. Tompkins, MD
Shriners Hospitals for Children, Spokane, WA

153

11:24 AM–11:28 AM

Foot and Ankle Function at Maturity After Ilizarov Treatment for Atrophic-Type Congenital Pseudarthrosis of the Tibia (CPT). A Comprehensive Outcome Comparison with the Norms**In Ho Choi, MD;** Sang Gyo Seo, MD;
Yeon Soo Kim Sr., MD; Dong Yeon Lee, MD;
Won Joon Yoo, MD; Tae-Joon Cho
Seoul National University Children's Hospital,
Seoul, KOREA

11:29 AM–11:37 AM

Discussion

FOOT/ANKLE**Moderator: Matthew Dobbs, MD****eModerator: David M. Scher, MD****Presider: A. Noelle Larson, MD**

154

11:40 AM–11:44 AM

How Important is Brace Compliance in Ponseti-Treated Idiopathic Clubfeet?**B. Stephens Richards III, MD;**
Shawne Faulks; Donald D. Virostek;
Kevin Felton; Karl E. Rathjen, MD;
Lori A. Karol, MD
Texas Scottish Rite Hospital for Children,
Dallas, TX

155

11:45 AM–11:49 AM

The Use of the Foot Ankle Orthosis After Ponseti Treatment of Idiopathic Clubfoot: How Long is Long Enough?**Rachel Goldstein, MD;** Alice Chu, MD;
Debra A. Sala, PT;
Wallace B. Lehman, MD
NYU Hospital for Joint Diseases,
New York, NY

156

11:50 AM–11:54 AM

Factors Associated with Clubfoot Recurrence in Individuals Treated with Ponseti Casting**Vishwas R. Talwalkar, MD;**
Donald Jeffrey Covell, MD; Ryan Hart, MD;
Janet Walker, MD; Henry J. Iwinski, MD;
Pooya Hosseinzadeh, MD;
Todd A. Milbrandt, MD;
Donna Jean Oeffinger, PhD;
Ryan D. Muchow, MD
Lexington Shriners Hospital for Children,
Lexington, KY

11:55 AM–12:03 PM

Discussion

SATURDAY, MAY 2

157

12:04 PM–12:08 PM

Efficacy of Non-Operative Treatment for Symptomatic Tarsal Coalitions**Eric D. Shirley, MD;** Radu Gheorghe,
Kevin M. Neal, MD
Nemours Children's Clinic, Jacksonville, FL

158

12:09 PM–12:13 PM

Patient Reported Outcomes of Surgically Treated Tarsal Coalitions: A Prospective Review**Samantha Anne Spencer, MD;**
Susan T. Mahan, MD;
Anneliese Lierhaus, BA; Patricia Miller, MS;
James R. Kasser, MD
Boston Children's Hospital, Boston, MA

159

12:14 PM–12:18 PM

Functional Outcomes and Health-Related Quality of Life Following Pediatric Lisfranc Tarsometatarsal Injury Treatment**Jaime Rice Denning, MD;**
Emily A. Eismann, MS; Leroy Butler, DO;
John Lewis Eisenlohr, MS
Cincinnati Children's Hospital Medical Center, Cincinnati, OH

12:19 PM–12:27 PM Discussion

Presenting authors are printed in **boldface**

SOCIAL EVENT OFFERINGS

Atlanta Braves vs. Cincinnati Reds Baseball Game**Location:** Turner Field
755 Hank Aaron Drive Southeast
Atlanta, GA 30315**Date:** April 30, 2015**Time:** 7:10 PM**Price:** \$65.00 per-person

On Thursday's free night, join POSNA members, colleagues, family, and friends at the Atlanta Braves game!

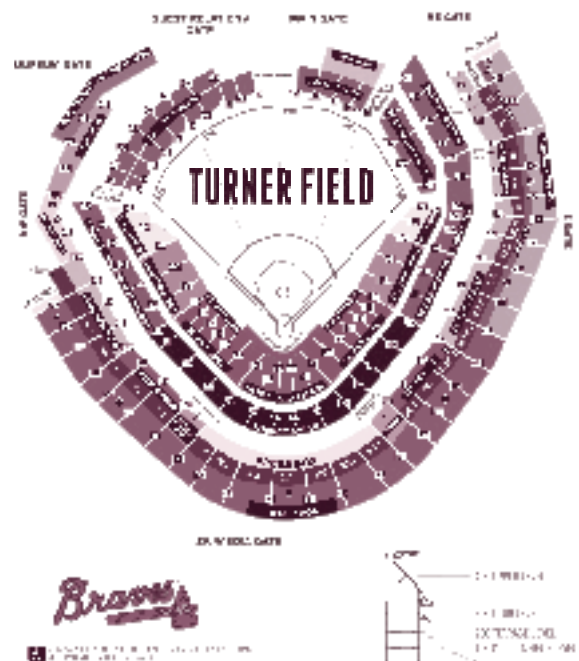


After opening in 1997, the "Home of the Braves" has quickly become an Atlanta landmark and the benchmark for future baseball park design. Turner Field combines the nostalgia and the atmosphere of old-time baseball with state-of-the-art family entertainment unlike that of any other park.

Fans from all over enjoy Turner Park's superior sound systems, the BravesVision video board in center field, the PlazaVision board in the Fan Plaza, and over 500 television monitors. The BravesVision video weighs over 21 tons and features over 331,000 fluorescent light bulbs! Inside the ballpark, fans are prompted to do the tomahawk chop by the 27-foot long "chopping" neon tomahawk located atop the video board, and are kept informed of the latest scores around the leagues by the out-of-town scoreboard.

POSNA has reserved a section of seats where everyone can sit together. The All-You-Can-Eat package includes seats in section 324-328L, rows 1-5. This game ticket comes with an all-inclusive food and beverage package where you'll be able to order from a set menu of hamburgers, hotdogs, drinks, and more for two hours before the game until around the 7th inning.

Turner Field is located 2.0 miles from the Marriott, which is a 10 minute cab ride with an estimated cost of a \$10 fare. POSNA currently has 50 tickets on hold for this section—please place your order of tickets when you register for the meeting. Tickets will be first come, first serve.



POSNA Closing Night Event at the Georgia Aquarium

Location: 3216 Paces Ferry Place
Atlanta, GA 30305

Date: May 1, 2015

Time: 6:30 PM–10:00 PM

Attire: Casual

POSNA is excited to host our annual closing night event at the Georgia Aquarium. Join us for a cocktail reception and hors d'oeuvres as you go on a hosted tour of the beautiful aquarium from 6:30 PM–7:30 PM. Dinner and dancing will follow from 7:30 PM–10:00 PM. The Georgia Aquarium contains between 100,000 and 120,000 fish and other sea creatures, representing more than five hundred species. It is the only institution outside of Asia housing whale sharks, which are kept in a 6.3-million-US-gallon tank. When Georgia exhibited great hammerhead sharks, it was one of only two aquaria in the United States with this species. The aquarium has also been home to as many as five 11-foot beluga whales at once. The manta ray, Nandi, joined the Ocean Voyager exhibit in 2008 and was the first manta ray on display in the country. These shining vistas of five oceans, 11 seas, eight rivers, and the entire coastline of Georgia will set the stage for a colorful get-away during this fabulous evening!

As this year's location is off-site, there will be a free shuttle for POSNA attendees to the aquarium. A shuttle schedule will be provided at reception during the meeting.

Due to low participation from past meetings and increased tour prices, POSNA will not be hosting any guided tours or tournaments. We have provided you with some information below and encourage you to explore the city!

City of Atlanta Golf Courses

www.teetimesatl.com

Location: All four courses are close to Downtown Atlanta and about 7.0 miles from the Marriott

The City of Atlanta owns four courses, all of which are managed by American Golf and are among the most popular courses in the metro area. North Fulton Golf Course, located at Chastain Park, and Bobby Jones, which is extremely convenient to in-town residents and those who work in town, are the best known of the city courses, but Browns Mill, located on Atlanta's south side, is very well respected for the quality of its layout. The Tup Holmes course lacks length, but the layout features narrow fairways and a lot of elevation changes, with a number of doglegs. Accuracy off the tee is vital beginning with the first hole, with some creeks running through the course, which was built on the site of a Civil War battleground. The downhill par-3 17th is the feature hole.

We encourage you to check out the below golf courses during your stay in Atlanta.

Alfred Tup Holmes Golf Course

Location: 2300 Wilson Drive

Browns Mill

Location: 408 Cleveland Avenue

Bobby Jones

Location: 384 Woodward Way

North Fulton

Location: 216 W. Wieuca Road



City of Atlanta Tennis Courts

Bitsy Grant Tennis Center

www.bitsytennis.com

Location: 2125 Northside Drive
Atlanta, GA 30305

Hours: Monday–Thursday, 9:00 AM–10:00 PM
Friday: 9:00 AM–7:00 PM
Saturday & Sunday: 9:00 AM–6:00 PM

Cost: Ranging from \$3.50 hr/person to \$7.00 hr/person

The Bitsy Grant Tennis Center is a historic Atlanta public tennis facility consisting of 13 clay courts and 10 hard courts (all lighted). Built in 1952, the tennis center is named for Bryan Grant, the most outstanding southern tennis player of his time. Named "Bitsy" because of his 5-foot, 4-inch frame, he personified the "everyone can play" credo of the tennis center named in his honor. He was inducted into the International Tennis Hall of Fame in Newport, Rhode Island in 1972.

This center is located 4.5 miles from the Marriott.

Sharon Lester Tennis Center at Piedmont Park

www.utatennis.com/sharon

Location: 400 Park Drive
Atlanta, GA 30306

Hours: Monday–Thursday: 9:00 AM–10:00 PM
Friday: 9:00 AM–9:00 PM
Saturday & Sunday: 9:00 AM–6:00 PM

The Sharon E. Lester Tennis Center at Piedmont Park is a fully staffed, public facility, offering play on 12 lighted hard courts. Located in the heart of Midtown, Piedmont Park is the largest and most popular park in Atlanta, covering 189 acres. Because of its proximity to downtown, Piedmont Park is home to numerous art and music festivals, as well as, the annual Peachtree Road Race.

This historic park is managed and maintained by the Piedmont Park Conservancy, a nonprofit organization, working with the city of Atlanta for the past 20 years, and has poured in over \$64 million dollars to restore the park to its original condition. Numerous opportunities exist for juniors and adults to participate in league play or weekly clinics and drills.

This center is located 2.6 miles from the Marriott.



REGISTRATION FORM

- **EARLY REGISTRATION DEADLINE:** March 2, 2015
- **PRE-REGISTRATION CLOSES** March 31, 2015. PLEASE REGISTER AT THE MEETING after this date.
- For prompt crediting of your registration please mail to POSNA, 6665 Eagle Way, Chicago, IL 60678–1066. Payment must be enclosed.
- The bank will not accept overnight or courier packages.
- The Atlanta Marriott Marquis only accepts reservations by phone: (866) 469–5475 or online: <https://resweb.passkey.com/go/POSNA2015>. Please reference the POSNA 2015 Annual Meeting when making reservations by phone. Deadline for housing reservations: April 6, 2015.
- Registration includes: Course material, Wednesday Opening Ceremony and Reception, Friday Closing Reception, coffee breaks, and 3 continental breakfasts. Accompanying persons must be registered to attend these social events. Accompanying Person Registration includes Wednesday Reception, Friday Reception and 3 continental breakfasts.

NAME	DEGREE(S)	ACCOMPANYING PERSON(S):	
ADDRESS	CHILDREN (NAMES AND AGES)		
CITY	STATE	ZIP	COUNTRY
OFFICE PHONE	OFFICE FAX		

E-MAIL

Registration Fees

	USD	Amount
Member	\$675	_____
Non-Member	\$925	_____
*Resident/Fellow	\$450	_____
RN/PA/Allied Health	\$450	_____
Delegates from Reduced Rate Countries*		
Low Income	\$375	_____
Low-Middle Income	\$450	_____
Senior Member	\$375	_____
Accompanying Person	\$325	_____
Children 6-12, per child	\$10	_____
Children 13-17, per child	\$100	_____
FRIDAY ONLY—Member	\$250	_____
FRIDAY ONLY—Non-Member	\$300	_____
FRIDAY ONLY—Resident/Fellow	\$200	_____
FRIDAY ONLY—Allied Health	\$200	_____
Printed Program	\$10	_____
After March 2, 2014, Late Fee	\$50	_____
On-Site registration additional fee	\$50	_____

* Visit www.posna.org/meetings/anmeet/ReducedReg.pdf for a list of reduced rate countries.

TOTAL REGISTRATION FEES

POSNA DIRECT Donation

*If you are registering as a Resident/Fellow, Name and Phone Number of your Chief of Staff or Dept. Head is required here:

- ☐ Check if ADA (Americans with Disabilities Act) accommodation is desired. Please specify. _____
- ☐ Check if you have any dietary restrictions. Please specify. _____

PAYMENT MUST BE ENCLOSED OR FORM WILL BE RETURNED: ONLY ONE METHOD OF PAYMENT IS ACCEPTABLE (PRE-COURSE IS A SEPARATE REGISTRATION FORM & FEE)

- Checks payable to POSNA in U.S. Dollars only, drawn on U.S. Bank (registrant is responsible for all bank charges) Travelers Checks (must be signed)
- Master Card/Visa/American Express _____ Please put this amount on my credit card

CARD NUMBER (PLEASE CHECK FOR ACCURACY)	CCV CODE	EXP. DATE	SIGNATURE
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REFUND POLICY: Written notice of cancellation must be sent for refund. Full refund through March 31, 2015. 20% administrative fee after March 31, 2015. No refunds after April 27, 2015.

Optional Events (see program for times and description)

	USD	Attendee	Guest
Wednesday Opening and Reception	N/C	☐	☐
(included in registration, please check if you are planning to attend)			
Lunchtime Breakout Sessions (Boxed lunches for registered attendees only.)			
COUR	N/C	☐	
NP/PA	N/C	☐	
Practice Management	N/C	☐	
Research	N/C	☐	
ICD-10 Workshop	\$99	☐	☐
Young Members Forum	N/C	☐	☐
Baseball Game	\$65	☐	☐
Friday Subspecialty Day	USD	Attendee	Guest
Hip	N/C	☐	
Spine	N/C	☐	
Sports	N/C	☐	
Hand and Upper Extremity	N/C	☐	
Neuromuscular and Lower Extremity	N/C	☐	
Friday Closing Night Reception	N/C	☐	☐
(included in registration, please check if you are planning to attend)			

NOTE TO POSNA MEETING ATTENDEES:

The final program is available on the POSNA meeting app.

A printed final program is available for purchase for \$10.

Do you wish to purchase the printed Final Program Book for \$10? ☐ Yes ☐ No

NOTE TO POSNA MEMBERS:

The member directory is available online at www.posna.org.

If you are a POSNA Member, do you wish to receive a printed membership directory?

☐ Yes ☐ No

Register Online Today at www.posna.org

2015 **POSNA**
ANNUAL MEETING
Marriott Marquis, Atlanta, GA
April 29–May 2, 2015

Mail meeting registration form and payment only to:

POSNA
6665 Eagle Way,
Chicago, IL 60678–1066

or

REGISTER ONLINE at www.posna.org

A \$50 USD late fee will be applied to all registrations received after March 2, 2015.

Please register at the meeting after March 31, 2015.

MISSION

To improve the care of children with musculoskeletal disorders through education, research, and advocacy.

About POSNA

The Pediatric Orthopaedic Society of North America (POSNA) is a group of professionals comprised mostly of pediatric orthopaedic surgeons. We are board certified in orthopaedic surgery and have participated in additional training to become specialized in the care of children's musculoskeletal health and our practice reflects this dedication. We, as a group, strive to become the authoritative source on such care through appropriate research that will lead to the best evidence-based patient care.



POSNA
PEDIATRIC ORTHOPAEDIC SOCIETY
OF NORTH AMERICA



POSNA

PEDIATRIC ORTHOPAEDIC SOCIETY
OF NORTH AMERICA

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2015 POSNA ANNUAL MEETING

Marriott Marquis, Atlanta, GA
April 29–May 2, 2015

Bone Joint—
Initiative
—USA—

REGISTER NOW
www.posna.org

EARLY REGISTRATION DEADLINE
March 2, 2015

PRE-REGISTRATION CLOSES
March 31, 2015

After March 31, 2015, please register on-site.