

EPOS & POSNA Present



2024 Combined EPOSNA Meeting

Seeking to foster global pediatric orthopaedic education and scholarly exchange



National Harbor, MD

May 8-11, 2024

Preliminary Program

Program Chairs: David Farrington, MD & Anthony Riccio, MD

Local Hosts: Matthew Oetgen, MD, MBA & Megan Young, MD

POSNA ACKNOWLEDGEMENTS

The Pediatric Orthopaedic Society of North America gratefully acknowledges the following for their generous financial support during 2023.

EMERALD LEVEL (\$300,000 +)



DOUBLE DIAMOND LEVEL (\$150,000-\$299,999)



DIAMOND LEVEL (\$100,000-\$149,999)

*DePuy Synthes
Stryker

PLATINUM LEVEL (\$75,000-\$99,999)

NuVasive
Orthofix

GOLD LEVEL (\$50,000-\$74,999)

Pacira BioSciences, Inc.

SILVER LEVEL (\$20,000-\$49,999)

Arthrex
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Children's Healthcare of Atlanta
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Globus Medical
Nemours Children's Health
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BRONZE LEVEL (\$1,000-\$19,999)

Akron Children's Hospital
Campbell Clinic Orthopaedics
Central Texas Pediatric Orthopaedics
Children's Hospital of Los Angeles
Children's National Hospital
Cincinnati Children's Hospital
CurveBeam AI

Gillette Children's
Miach Orthopaedics, Inc.
PediTST
Scottish Rite for Children
Washington University St. Louis
Wishbone Medical

EPOS ACKNOWLEDGEMENTS

The European Paediatric Orthopaedic Society gratefully acknowledges the following for their financial support during 2023.

DIAMOND LEVEL \geq € 70.000,00



GOLD LEVEL € 30.000,00-€ 49.000,00



SILVER LEVEL € 20.000,00-€ 29.000,00



BRONZE LEVEL € 10.000,00-€ 19.000,00



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DATES TO REMEMBER

2024 COMBINED EPOSNA MEETING

- Early Registration DeadlineApril 2, 2024
- Housing DeadlineApril 15, 2024
- Pre-Registration DeadlineMay 5, 2024
- On-Site Registration Rate Starts May 6, 2024

FUTURE POSNA ANNUAL MEETINGS

- May 14-16, 2025 • Las Vegas, NV
- May 6-8, 2026 • Orlando, FL

FUTURE EPOS MEETINGS

- April 2-5, 2025 Toulouse • France
- 2026 Seville • Spain

PROGRAM COMMITTEE

EPOS

Franck Accadbled, MD, PhD
Cristina Alves, MD, MSc, FEBOT
David Farrington, MD
Ilkka Helenius, MD, PhD

POSNA

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Anthony Riccio, MD
Julie Samora, MD, PhD
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VIRTUAL SYMPOSIA CHAIRS

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Jennifer Laine, MD; A. Noelle Larson, MD; and Christian Nai En Tierp-Wong, MD, PhD

Trauma

Nicolas Lutz, MD; Philip McClure, MD; and Melinda Witbreuk, PhD

POPS

Katherine Carpenter, RN and Nicole Tweedy, CPNP

POGO

Corey Gill, MD; Ignacio Sanpera, MD, PhD, FCS(SA) Ortho; and Christopher Souder, MD



EPOSNA MISSION

To advance the musculoskeletal care of children worldwide through the discussion and dissemination of pediatric orthopaedic research.

EPOSNA VISION

To be the preeminent international platform for the exchange of research and ideas related to the orthopaedic care of children.

THANK YOU REVIEWERS

The Program Committee would like to acknowledge and thank the many EPOS and POSNA volunteer abstract reviewers for their hard work and dedication.

ABSTRACT REVIEWERS

Ibrahim Abuomira, PhD
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Elizabeth Hubbard, MD
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Joshua Tadlock, MD
Vishwas Talwalkar, MD
Rachel Thompson, MD
Kali Tileston, MD
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Dominick Tuason, MD
Michiel van de Sande, MD, PhD
Kelly Vanderhave, MD
John Vorhies, MD
Carley Vuillermin, MBBS,
MPH, FRACS
Robert Lane Wimberly, MD
Melinda Witbreuk, MD
Marcella Woiczik, MD
Christian Wong, MD, PhD

YOU'RE INVITED

Dear Colleagues,

On behalf of POSNA President, Daniel J. Sucato, MD, and EPOS President, Hakan Omeroglu, MD, along with the EPOS Reading Committee and POSNA Program Committee, it is our absolute pleasure to invite you to attend the 2nd combined meeting of the Pediatric Orthopaedic Society of North America and the European Paediatric Orthopaedic Society (EPOSNA) at the Gaylord National Resort in National Harbor, Maryland, May 8-11, 2024.

We are truly excited to assemble surgical experts, knowledge leaders, researchers, and medical professionals from around the globe to discuss the latest advancements, research, and best practices in the field of pediatric orthopaedics. The meeting has been designed to foster worldwide collaboration, allow for a collegial exchange of knowledge, and enhance the understanding of pediatric musculoskeletal conditions.

A remarkable 1300+ abstracts were submitted and were graded by a combination of invited and volunteer reviewers from both EPOS and POSNA. Thank you to all 100+ POSNA and EPOS members who volunteered to grade abstracts and consequently helped to shape this historic meeting.

The program includes papers from 38 countries and 6 continents, chosen to promote a global exchange of ideas and knowledge. The meeting will feature an astounding 250 podium presentations and 200 ePosters. This is more than has ever been presented at a single pediatric orthopaedic meeting anywhere in the world. We assure you that each and every one of these accepted papers is outstanding. The meeting agenda follows:

- The first Scientific Session will take place on Wednesday morning and will include papers discussing trauma and the best of new spine research.
- Wednesday afternoon will feature four Concurrent Sessions in which papers will be presented discussing foot/ankle, hand/upper extremity, neuromuscular, infection/tumor, hip, congenital/syndromic dysplasias, and more spine research.
- On Wednesday evening the Opening Ceremony will occur, followed by a Welcome Reception at the beautiful Gaylord National Resort.
- Industry-sponsored symposia will be held during the lunch break on Wednesday and Friday.
- Thursday morning will include the POSNA Business Meeting and EPOS General Assembly followed by the *Lead Like Lori Lecture* in honor of past POSNA president and pediatric orthopaedic trailblazer Lori Karol, MD.
- Thursday afternoon, as always, will be free of scheduled content. Attendees are encouraged to plan for social gatherings, recreational pursuits, and excursions into historic Washington, DC, or Old Town Alexandria in the spirit of reconnecting with old friends and making new ones.

YOU'RE INVITED

- Award-nominated Papers will be presented Friday morning and winners will be determined by audience vote using the mobile app. Concurrent Sessions on Friday afternoon will cover five topics including spine, sports, lower extremity/deformity, trauma, and hip. This busy academic day will conclude with our Closing Event at the Smithsonian National Museum of Natural History in Washington, DC.
- Saturday morning will include scientific sessions, distinguished achievement awards, abstract awards, and presidential transfers (POSNA & EPOS). The meeting concludes on Saturday at 12:00 PM.

The Gaylord National Resort is a world-class facility. Standing on the Potomac River, it offers the very best in hospitality, dining, and entertainment. Moreover, the resort is minutes from Washington, DC, where attendees can avail themselves of the grandeur of the United States capital city with its awe-inspiring monuments, historic archives, exceptional restaurants, countless art galleries, and the world-famous (and no-cost entry) Smithsonian Museums. The average temperature in Washington, DC in May is 76° F/24° C, making it the perfect time of year to visit the U.S. capital.

EPOS and POSNA are excited to welcome you to the Gaylord National Resort to attend this second combined EPOSNA meeting!

See you in May!

David Farrington, MD and Anthony Riccio, MD



Jefferson Memorial courtesy of washington.org



The White House courtesy of washington.org



Smithsonian Castle courtesy of washington.org



Gaylord National Harbor

GENERAL MEETING INFORMATION

LEARNING OBJECTIVES

Objective 1: Analyze new research for its quality, safety, and value to the field of pediatric orthopaedics.

Objective 2: Discuss treatment strategies amongst peers and world-renowned thought leaders.

Objective 3: Identify and apply appropriate practice changes to optimize patient care.

ACCREDITATION

In support of improving patient care, this activity has been planned and implemented by Amedco LLC and the Pediatric Orthopaedic Society of North America. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

ACCME CREDIT DESIGNATION

Amedco LLC designates this live and enduring material for **19 live AMA PRA Category 1 Credits™**, and **5.75 enduring AMA PRA Category 1 Credits™**. This activity has a maximum of **24.75 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AMA TO EACCME™ CONVERSION

Discover how to convert your American Medical Association (AMA) credits to the European Accreditation Council for Continuing Medical Education (EACCME™) system effortlessly. Stay informed about the recent agreement between the AMA and the Union of European Medical Specialties (UEMS) and its implications for medical professionals in Europe. Explore the international accreditation standards and streamline your accreditation process for a smoother transition. For detailed information, visit the page on AMA to EACCME™ Conversion.

<https://www.ama-assn.org/education/ama-pra-credit-system/agreement-european-union-medical-specialties-uems>

GENERAL MEETING INFORMATION

DISCLOSURE

Each meeting presenter has been asked to disclose if he or she has received something of value from a commercial company or institution, which relates directly or indirectly to the subject of their presentation. In the online posted disclosure report, an indication of the participant's disclosure appears after his or her name as well as the commercial company or institution that provided the support. EPOS and POSNA do not view the existence of these disclosed interests or commitments as necessarily implying bias or decreasing the value of the author's participation in the meeting.

FDA STATEMENT (UNITED STATES)

Some drugs or medical devices demonstrated at the Annual Meeting may not have been cleared by the FDA or have been cleared by the FDA for specific purposes only. The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice. Any drug or medical device is being used "off label" if the described use is not set forth on the product's approval label.

* Indicates a presentation in which the FDA has not cleared the drug and/or medical device for the use described (i.e., the drug or medical device is being discussed for an "off-label" use).

Visa Information

It is the sole responsibility of the attendee to take care of his/her/their visa requirements. Attendees who require an entry visa must allow sufficient time for the application procedure. Attendees should contact the nearest embassy or consulate to determine the appropriate timing of their visa applications. Neither the EPOS Secretariat nor POSNA office will directly contact embassies and consulates on behalf of visa applicants. Head to the [US Visa Wizard](#) to determine your appropriate visa category, and simplify your application process for a seamless travel experience.

Letter of Invitation

Individuals requiring an official Letter of Invitation can request one from the POSNA office at posna@posna.org. Attendees must first register for the meeting and submit payment in full. The Letter of Invitation does not financially obligate EPOS or POSNA in any way. All expenses incurred in relation to the meeting attendance are the sole responsibility of the attendee.

POSNA MEMBERSHIP REQUIREMENT

Full meeting attendance at the 2024 Combined EPOSNA Meeting fulfills your POSNA membership meeting attendance requirement.

GENERAL MEETING INFORMATION

SAVE THE DATE: THURSDAY, MAY 9
5:00 PM–6:30 PM

**EPOSNA Women’s Happy Hour:
Promotions, Pregnancy, Publications, Prosecco, and Pints**

Please join us for a lively (and educational) happy hour with your fellow women pediatric orthopaedic colleagues. Grab a cocktail and some apps, and float between multiple themed tables. Each table will have content experts focusing on different topics such as contract negotiation, advancement/promotion, getting your papers published and pregnancy/fertility struggles facing orthopaedic surgeons.





POSNA APP





**Locate the Events tab to access the
2024 Combined EPOSNA Meeting**



REGISTRATION INFORMATION

Sponsored by Stryker

Full meeting registration from Wednesday, May 8, 2024, through Saturday, May 11, 2024, includes all sessions, Opening Reception, coffee breaks, breakfast, and Industry Symposia each day.

Please Note: The Closing Event at the Smithsonian National Museum of Natural History is \$125 per person.

CANCELLATION POLICY

Full refunds will be provided less a processing fee if received in writing to respeto@posna.org by the date listed below. No refunds will be granted after April 30, 2024. Registrants will receive confirmation and a refund within 14 days of receipt of their cancellation notice.

February 2–April 9, 2024	less a 20% processing fee
April 10–April 30, 2024	less a 50% processing fee
May 1, 2024	No refunds

EARLY REGISTRATION FEES (U.S. DOLLARS)

POSNA/EPOS Member	\$ 800
POSNA Emeritus Members.....	\$ 600
Non-Member	\$ 1600
Resident/Fellow*	\$ 600
Medical Student*	\$ 600
Allied Health*	\$ 600
Active Military	\$ 550
Delegates from Reduced Rate Countries: Low Income	\$ 300
Accompanying Person.....	\$ 250
Children 6-12, per child.....	\$ 0
Children 13-17, per child	\$ 0

Early Registration deadline April 2, 2024

***An additional \$50.00 will apply to the above costs starting April 3, 2024**

*Medical Students must provide a recent transcript from their institution showing good standing to Erica Respeto, respeto@posna.org, in order to receive the reduced fee.

*Residents/Fellows must provide their chief/director's name and phone number to Erica Respeto, respeto@posna.org, in order to qualify for the reduced fee. Without this information, you will be charged the non-member fee.

*Allied Health professionals are required to provide their job title, institution's name and chief/director's name to Erica Respeto, respeto@posna.org, to receive the reduced fee.

Pre-Registration closes on May 5, 2024. There will be an additional fee of \$50 added on-site.

If you need to pay by check, email respeto@posna.org for a registration form. All checks must be in U.S. dollars drawn on a U.S. Bank. If paying by check, please mail your registration to: POSNA, 1 Tower Lane, Suite 2410, Oakbrook Terrace, IL 60181

Note: The accompanying person fee includes breakfast Wednesday-Saturday and the Welcome Reception on Wednesday evening. Accompanying persons must be registered in order to attend.

MEETING AND HOUSING INFORMATION

National Harbor is situated on the banks of the historic Potomac River, just minutes from the nation's capital. Featuring 350 acres of waterfront resort space, National Harbor is a destination unlike any other. This area is home to 160 stores, 40 restaurants, the iconic Capital Wheel, and the best sunsets in the DC area.

Gaylord National Resort & Convention Center offers convenient access to many of Maryland's most beloved attractions, some of which are right under this hotel's roof. From the 19-story glass atrium overlooking the river to fountain shows, distinct restaurants, and signature seasonal attractions, you'll experience it all.

Please note that the Gaylord National Resort & Convention Center is a cashless property. [Click here](#) for more information and to book your housing.

PRIVACY POLICY – USE OF PERSONAL INFORMATION

2024 Combined EPOSNA Meeting registration lists, including the registrant's name and postal mailing address are used to process your meeting registration and to provide you with information and materials related to EPOSNA. EPOS/POSNA shares your personal data with its sponsors, exhibitors, and other vendors related to the meeting in order to notify you of products and services that may be of interest to you. No financial or other personal identifying information is disclosed. EPOS/POSNA takes reasonable steps to ensure that our sponsors protect your information on EPOS/POSNA's behalf. Please [click here](#) for additional information on POSNA's Privacy Policy.

DISCLOSURE OF PERSONAL INFORMATION

When registering for the 2024 Combined EPOSNA Meeting, your personal identifying information is retained by POSNA. You understand and agree that POSNA may disclose your name, address, and contact information to the hotel and other service providers.

National Harbor, MD



TRANSPORTATION

AIRPORT

Ronald Reagan Washington National Airport (DCA) is 6.9 miles from the Gaylord National Resort. Washington Dulles International Airport (IAD) is 32.8 miles from the Gaylord National Resort.

GROUND TRANSPORTATION TO/FROM AIRPORT

A variety of ground transportation options are available to/from each airport.

DCA Transportation [click here](#)

IAD Transportation [click here](#)

GETTING AROUND TOWN

National Harbor's convenient location makes it easy to access from anywhere in the surrounding area. The destination is directly accessible via the Woodrow Wilson Bridge, the Capital Beltway (I-495), I-95, and I-295.

Travelers have convenient and inexpensive options for travel into Washington, DC, from National Harbor.

<https://washington.org/DC-guide-to/getting-to-washington-dc>



Courtesy of washington.org

PROGRAM AT A GLANCE

TUESDAY, MAY 7		
Registration	3:00 PM–6:00 PM	Potomac Foyer
WEDNESDAY, MAY 8		
EPOS Past Presidents Breakfast	6:30 AM–7:45 AM	Chesapeake 10–12
Registration	7:00 AM–6:00 PM	Potomac Foyer
Breakfast/Exhibits	7:00 AM–8:00 AM	Maryland Ballroom
Session 1	8:00 AM–9:41 AM	Potomac Ballroom
Coffee/Exhibits Break	9:48 AM–10:08 AM	Maryland Ballroom
EPOS Presidential Speaker	10:15 AM–10:40 AM	Potomac Ballroom
Session 2	10:41 AM–11:55 AM	Potomac Ballroom
Industry Symposium	12:15 PM–1:15 PM	Cherry Blossom Ballroom
Industry Symposium	12:15 PM–1:15 PM	National Harbor 2-3
Industry Symposium	12:15 PM–1:15 PM	Woodrow Wilson Ballroom
Industry Symposium	12:15 PM–1:15 PM	National Harbor 10-11
Session 3 (Concurrent)	2:00 PM–3:38 PM	Potomac Ballroom Cherry Blossom Ballroom National Harbor 2-3 Woodrow Wilson Ballroom
Coffee/Exhibits Break	3:45 PM–4:05 PM	Maryland Ballroom
Session 4 (Concurrent)	4:12 PM–5:30 PM	Potomac Ballroom Cherry Blossom Ballroom National Harbor 2-3 Woodrow Wilson Ballroom
Opening Ceremony	6:30 PM–8:00 PM	Potomac Ballroom
Welcome Reception	8:00 PM–10:00 PM	Lower Atrium/Lower Level/Ballroom Level

PROGRAM AT A GLANCE

THURSDAY, MAY 9		
Registration	7:00 AM–12:00 PM	Potomac Foyer
Breakfast/Exhibits	6:30 AM–8:00 AM	Maryland Ballroom
EPOS General Assembly	7:00 AM–9:30 AM	Cherry Blossom Ballroom
POSNA Business Meeting	8:00 AM–9:30 AM	Woodrow Wilson Ballroom
Session 5	9:45 AM–11:26 AM	Potomac Ballroom
Coffee/Exhibits Break	11:33 AM–11:53 AM	Maryland Ballroom
Lead Like Lori Lecture	12:10 AM–1:20 PM	Potomac Ballroom
FRIDAY, MAY 10		
Registration	7:00 AM–5:00 PM	Potomac Foyer
Coffee/Exhibits Break	7:00 AM–8:00 AM	Maryland Ballroom
Session 6: Award-Nominated Papers Part I	8:00 AM–9:00 AM	Potomac Ballroom
POSNA Presidential Speaker	9:05 AM–9:25 AM	Potomac Ballroom
Coffee/Exhibits Break	9:30 AM–9:50 AM	Maryland Ballroom
Session 7: Award-Nominated Papers Part II	9:55 AM–11:24 AM	Potomac Ballroom
Pro Maximis Meritis Award	11:25 AM–11:41 AM	Potomac Ballroom
Distinguished Achievement Award	11:44 AM–12:00 PM	Potomac Ballroom
Industry Symposium	12:20 PM–1:20 PM	Cherry Blossom Ballroom
Industry Symposium	12:20 PM–1:20 PM	National Harbor 2-3
Industry Symposium	12:20 PM–1:20 PM	Woodrow Wilson Ballroom
Industry Symposium	12:20 PM–1:20 PM	National Harbor 10-11
Session 8 (Concurrent)	2:00 PM–3:38 PM	Potomac Ballroom Cherry Blossom Ballroom National Harbor 2-3 Woodrow Wilson Ballroom
Coffee/Exhibits Break	3:45 PM–4:05 PM	Maryland Ballroom
Session 9 (Concurrent)	4:10 PM–5:48 PM	Potomac Ballroom Cherry Blossom Ballroom National Harbor 2-3 Woodrow Wilson Ballroom
Closing Event	7:30 PM–11:00 PM	Smithsonian National Museum of Natural History

PROGRAM AT A GLANCE

SATURDAY, MAY 11		
Registration	7:00 AM–12:00 PM	Potomac Foyer
Breakfast	7:00 AM–8:00 AM	Maryland Ballroom
Session 10	8:00 AM–9:18 AM	Potomac Ballroom
Award Announcements	9:19 AM–9:24 AM	Potomac Ballroom
EPOS Presidential Transfer	9:25 AM–9:35 AM	Potomac Ballroom
POSNA Presidential Transfer	9:36 AM–9:46 AM	Potomac Ballroom
Coffee Break	9:50 AM–10:10 AM	Maryland Ballroom
Session 11	10:15 AM–12:00 PM	Potomac Ballroom

*Program subject to change



Gaylord National Harbor

SESSION 1 – TRAUMA

Room: Potomac Ballroom

Moderators: Jonathan G. Schoenecker, MD, PhD and Melinda Witbreuk, PhD

8:00 AM–9:41 AM

8:00 AM–8:05 AM Welcome & Remarks

1

8:06 AM–8:10 AM

Radiological, Clinical, and Functional Outcome of Children with Traumatic Hip Dislocation: Review of 66 Cases

Sara De Salvo; Shunyou Chen; Fabio Sammartino; Jeanne-Agathe Mujadiki Luesa; Yunan Lu; Wentao Wang; Liwei Shi; Lianyong Li; Vito Pavone; Federico Canavese, MD; France-China-Italy Traumatic Hip Dislocation Study Group
CHU Lille, Lille, France

2

8:11 AM–8:15 AM

Diaphyseal Femur Fractures in Children Under the Age of 3 – Risk Factors for Non-Accidental Trauma: A CORTICES Multi-Center Study

Manya Bali; Patricia E. Miller, MS; Benjamin J. Shore, MD, MPH, FRCSC; Scott B. Rosenfeld, MD; CORTICES
Boston Children’s Hospital, Boston, MA, U.S.

3

8:16 AM–8:20 AM

Increased Odds of Non-Accidental Traumatic Fractures in Pediatric Patients with Intellectual Disability Disorder: A Stratified Analysis

Rishi Gonuguntla; David Momtaz; Mehul Mittal; Beltran Torres-Izquierdo; Pooya Hosseinzadeh, MD
Washington University in St. Louis, St. Louis, MO, U.S.

8:21 AM–8:29 AM Discussion

4

8:30 AM–8:34 AM

Ischial Tuberosity Avulsion Fractures: Treatment and Return to Sport in Athletes with Displaced Fragments

Jayson Saleet; Eduardo Novais, MD; Yi-Meng Yen, MD; Mininder S. Kocher, MD, MPH; Lyle J. Micheli, MD; Benton E. Heyworth, MD
Boston Children’s Hospital, Boston, MA, U.S.

5

8:35 AM–8:39 AM

Pre-Existing Femoroacetabular Impingement is Associated with Pelvic Avulsion Fractures in Adolescents: A Matched Cohort Study

Miles Batty; Samantha L. Ferraro, BS; Munif Hatem; Patricia E. Miller, MS; Benton E. Heyworth, MD; Sarah D. Bixby; Eduardo Novais, MD
Boston Children’s Hospital, Boston, MA, U.S.

6

8:40 AM–8:44 AM

An Emerging Healthcare Crisis: Trends in Pediatric Firearm Injuries Over Time - Analysis of Over 1100 Cases

Claire Sentilles; Elizabeth Lane Whitman; Keith Jayson Orland; Abu Mohd. Naser; Jonathan Rowland; Jeffrey R. Sawyer, MD; Benjamin West Sheffer, MD; David D. Spence, MD; William C. Warner, MD; Derek M. Kelly, MD, FAAOS, FAOA
Campbell Clinic, Germantown, TN, U.S.

8:45 AM–8:53 AM Discussion

7

8:54 AM–8:58 AM

Loss of Reduction in Pediatric Distal Radius Fractures: Risk Factors from a Prospective Multicenter Registry

Apurva S. Shah, MD, MBA; Zoe Elizabeth Belardo, BA; Mark Leland Miller, MD; Michael Willey; Susan T. Mahan, MD, MPH; Divya Talwar; Rebecca Aguiar; Sana Bouajaj; Aspen Miller; Joshua Marino; Donald S. Bae, MD; Pediatric Distal Radius Fracture Registry
Children’s Hospital of Philadelphia, Philadelphia, PA, U.S.

8
8:59 AM–9:03 AM
Modified Elastic Stable Intramedullary Nailing, a New Approach for Distal Metaphyso-Diaphyseal Junction of Forearm in Children.
*Elie Georges Saliba; Pauline Savidan; Clement Munoz; Yan Lefèvre
Hopital Des Enfants CHU de Bordeaux, Bordeaux, France*

9
9:04 AM–9:08 AM
Take It or Leave It: Prevalence and Complications from Hardware Removal following Pediatric Fracture Fixation
*Vineet Desai; Scott J. Mahon; Lucas Hauth; Amanda Pang; Apurva S. Shah, MD, MBA; Jason Anari, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

9:09 AM–9:17 AM Discussion

10
9:18 AM–9:22 AM
Use of the Bioabsorbable Activa IM-Nail™ in Pediatric Diaphyseal Forearm Fractures: A Prospective Cohort Study With At Least One Year Follow-Up ♦
*David Goettsche; Morten Jon Andersen, MD
Copenhagen University Hospital - Herlev and Gentofte, Copenhagen, Denmark*

11
9:23 AM–9:27 AM
Biodegradable Magnesium Implants – a Game Changer in Pediatric Trauma Care
*Romy Marek; Tavishi Singh; Nicole Gabriele Sommer; Annelie-Martina Weinberg, MD, PhD
Medical University of Graz, Graz, Austria*

12
9:28 AM–9:32 AM
Biodegradable Intramedullary Nailing of Severely Displaced Distal Paediatric Metaphyseal Radius Fractures
*Marcell Benjamin Varga; Gergo Józsa; Zsófia Krupa; Tamás Kassai
Manninger Jenő Baleseti Központ, Budapest, Hungary*

9:33 AM–9:41 AM Discussion

EPOS PRESIDENTIAL SPEAKER

Room: Potomac Ballroom
10:15 AM–10:40AM
10:15 AM–10:20 AM Introduction
10:20 AM–10:40 AM *Manuel Cassiano Neves*

SESSION 2 – BEST OF SPINE

Room: Potomac Ballroom
Moderators: Carol C. Hasler, MD and Peter O. Newton, MD
10:41 AM–11:53 AM
10:41 AM–10:43 AM Welcome & Remarks

13
10:44 AM–10:48 AM
Can Scoliosis-Specific Exercises be Performed with Wearing Brace in Treating Adolescent Idiopathic Scoliosis: an Alternative Use of Scoliosis-Specific Exercises without Sacrificing Bracing Hour
*Charlene Fan; Michael To; Jason Cheung; Kenneth MC Cheung, MD
The University of Hong Kong – Shenzhen Hospital, Shenzhen, People's Republic of China*

♦ Indicates a presentation in which the FDA has not cleared the drug and/or medical device for the use described (i.e., the drug or medical device is being discussed for an “off label” use)."

14

10:49 AM–10:53 AM

Surgeon Contoured Versus Pre-Contoured Patient-Specific Rods in Adolescent Idiopathic Scoliosis: Assessing Global Sagittal Alignment

Sahir Jabbouri, MD; Peter Joo; Wyatt David; Seongho Jeong; Jay Moran; Anshu Jonnalagadda; Dominick A. Tuason, MD Yale School of Medicine, New Haven, CT, U.S.

15

10:54 AM–10:58 AM

Pulmonary Function at Minimum 10 Years After Segmental Pedicle Screw Instrumentation for Thoracic Adolescent Idiopathic Scoliosis

Linda Helenius; Matti Mikael Ahonen; Johanna Syvänen; Ilkka J. Helenius, MD Helsinki University Hospital, Helsinki, Finland

10:59 AM–11:07 AM Discussion

16

11:08 AM–11:12 AM

Osteotomies at The Time of Graduation Surgery: How Much Do We Get from Them?

Tyler A. Tetreault, MD; Tiffany Phan; Tishya A. L. Wren, PhD; Michael J. Heffernan, MD; John B. Emans, MD; Lawrence I. Karlin, MD; Amer F. Samdani, MD; Michael G. Vitale, MD, MPH; Ilkka J. Helenius, MD; Lindsay Andras, MD; Pediatric Spine Study Group Children's Hospital Los Angeles, Los Angeles, CA, U.S.

17

11:13 AM–11:17 AM

Is Bracing after Completion of Mehta Casting Worthwhile?

Tiffany Thompson; Carlos Monroig-Rivera; Mike M. O'Sullivan; Charles E. Johnston, MD Scottish Rite for Children, Dallas, TX, U.S.

18

11:18 AM–11:22 AM

Limited Fusion for Congenital Scoliosis: Is it Truly One and Done?

Brandon Yoshida; Tyler A. Tetreault, MD; Luke Christian Drake, MD; Tiffany Phan; Jacquelyn Nicole Valenzuela-Moss; Tishya A.L. Wren, PhD; Lindsay Andras, MD; Michael J. Heffernan, MD Children's Hospital Los Angeles, Los Angeles, CA, U.S.

11:23 AM–11:31 AM Discussion

19

11:32 AM–11:36 AM

Greater Implant Density Does Not Improve Pelvic Obliquity and Major Curve Correction in Neuromuscular Scoliosis

Patrick Thornley, MD; Arlene R. Maheu; Kenneth Rogers, PhD, ATC; Paul D. Sponseller, MD, MBA; Peter O. Newton, MD; A. Noelle Larson, MD; Joshua Pahys, MD; Peter G. Gabos, MD; M. Wade Shrader, MD; Tracey P. Bastrom, MA; Suken A. Shah, MD; Harms Study Group Nemours Children's Hospital, Wilmington, DE, U.S.

20

11:37 AM–11:41 AM

The Effect of Traction and Spinal Cord Morphology on Intraoperative Neuromonitoring Alerts

Evan Fene; Lydia Klinkerman, BS; Charles E. Johnston, MD; Jaysson T. Brooks, MD; Megan Johnson, MD Scottish Rite for Children, Dallas, TX, U.S.

21

11:42 AM–11:46 AM

What kind of Kyphosis? Stratifying Thoracolumbar Kyphosis in Achondroplasia

Luiz Carlos Almeida Da Silva; Yusuke Hori; Colleen P. Ditro, DNP, CPNP; Kenneth Rogers, PhD, ATC; J. Richard Bowen, MD; William G. Mackenzie, MD; Stuart Mackenzie, MD Nemours Children's Hospital, Wilmington, DE, U.S.

11:47 AM–11:55 AM Discussion

SESSION 3A – ADOLESCENT
IDIOPATHIC SCOLIOSIS (AIS)

Room: Potomac Ballroom

Moderators: *Lindsay Andras, MD and Dror Ovadia, MD*

2:00 PM–3:38 PM

2:00 PM–2:02 PM Welcome & Remarks

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2:03 PM–2:07 PM

Distribution of Curve Flexibility in Idiopathic Scoliosis – A Descriptive Study

Simon Blanchard; Matan Malka; Ritt Givens; Michael G. Vitale, MD, MPH; Benjamin D. Roye, MD
Morgan Stanley Children's Hospital at New York-Presbyterian, New York, NY, U.S.

23

2:08 PM–2:12 PM

When is Growth Greatest? Spine and Total Body Growth in Idiopathic Scoliosis through Sanders Maturation Stages 2, 3A, 3B, and 4

Yusuke Hori; Bryan Menapace; Burak Kaymaz; Luiz Carlos Almeida Da Silva; Norihiro Isogai; Sadettin Ciftci; Kenneth Rogers, PhD, ATC; Petya Yorgova; Andrea Mary Elsbey; Peter G. Gabos, MD; Suken A. Shah, MD
Nemours Children's Hospital, Wilmington, DE, U.S.

24

2:13 PM–2:17 PM

The True Cost of Late Referral in Adolescent Idiopathic Scoliosis: A 5-year Follow-up Study

Emma Nadler; Jennifer Dermott, PT, MSc, PhD Candidate; Dorothy Kim; David E. Lebel, MD, PhD
The Hospital for Sick Children (SickKids), Toronto, ON, Canada

2:18 PM–2:26 PM Discussion

25

2:27 PM–2:31 PM

Battle of the Braces: A Comparison of Brace Efficacy in Patients with Adolescent Idiopathic Scoliosis Treated with Providence, Boston-Style, and Rigo-Cheneau Braces

Leigh Davis; Amy Bridges; Julie Hantak; Hilary Harris; Sofie-Ellen Stroeve; Nikolay Braykov; Afrin Jahan; Nicholas D. Fletcher, MD
Children's Healthcare of Atlanta, Atlanta, GA, U.S.

26

2:32 PM–2:36 PM

Improvement in Axial Rotation with Bracing Reduces Risk of Curve Progression in Patients with Adolescent Idiopathic Scoliosis

Michael Fields; Christina Carin Rymond; Matan Malka; Ritt Givens; Matthew E. Simhon; Hiroko Matsumoto, PhD; Gerard F. Marciano; Afrain Z. Boby; Benjamin D. Roye, MD; Michael G. Vitale, MD, MPH
Children's Hospital of New York, New York, NY, U.S.

27

2:37 PM–2:41 PM

PROMIS-Based Assessment of Brace Compliance

Carlos Monroig-Rivera; David C. Thornberg; Chan-Hee Jo, PhD; Megan Johnson, MD
Scottish Rite for Children, Dallas, TX, U.S.

2:42 PM–2:50 PM Discussion

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2:51 PM–2:55 PM

Can Surgery be Proposed to Adolescent Idiopathic Scoliosis Patients with Structural Lumbar Curves Associated with Non-Reducible Iliolumbar Angle?

Laurentiu-Cosmin Focsa; Louise Ponchelet; Mikael Finoco; Anne-Laure Simon, MD, PhD; Brice Ilharreborde, MD
CHU Robert Debré, AP-HP, Paris Cité University, Paris, France

29
2:56 PM–3:00 PM
Utility of Routine Postoperative Laboratory Testing after Posterior Spinal Fusion for Adolescent Idiopathic Scoliosis
David Liu; Alexander Farid; Gabriel S. Linden; Danielle Cook; Craig Munro Birch, MD; Michael T. Hresko, MD; Daniel Hedequist, MD; Grant Douglas Hogue, MD
Boston Children's Hospital, Boston, MA, U.S.

30
3:01 PM–3:05 PM
A Comparison of Opioid-Sparing Versus Opioid-Containing Postoperative Pain Management for Idiopathic Scoliosis
Michael Schallmo; Kayla Hietpas; Michael Paloski, DO, MBA
Carolinas Medical Center/OrthoCarolina, Charlotte, NC, U.S.

3:06 PM–3:14 PM Discussion

31
3:15 PM–3:19 PM
An Accelerated Postoperative Protocol for Discharging Posterior Spinal Fusions Home in Less than Two days: Comparison of Two Matched Cohorts
Chase Bauer; Jeffrey Kessler, MD
Kaiser Permanente, Los Angeles, CA, U.S.

32
3:20 PM–3:24 PM
Can Surgery Improve Painful Adolescent Idiopathic Scoliosis Patients?
Arthur Poiri; Louise Ponchelet; Anne-Laure Simon, MD, PhD; Florence Julien-Marsollier; Mikael Finoco; Brice Ilharreborde, MD
CHU Robert Debré University Hospital, AP-HP, Paris, France

33
3:25 PM–3:29 PM
The Postoperative Decline in Health Related Quality of Life for Adolescents with Idiopathic Scoliosis Undergoing Spinal Fusion
Adam A. Jamnik; Emily E. Lachmann; Anne-Marie D. Datcu; David C. Thornberg; Chan-Hee Jo, PhD; Karl E. Rathjen, MD; Megan Johnson, MD; Brandon A. Ramo, MD
Scottish Rite for Children, Dallas, TX, U.S.

3:30 PM–3:38 PM Discussion

SESSION 3B – FOOT & ANKLE

Room: Woodrow Wilson Ballroom
Moderators: Deborah Eastwood, MD, FRCS and Steven Frick, MD
2:00 PM–3:38 PM

2:00 PM–2:02 PM Welcome & Remarks

34
2:03 PM–2:07 PM
The CoCo (Core Outcome Clubfoot) Study. Recurrence, with Poorer Clinical and Quality of Life Outcomes, Affects 37% Patients: an International Multicentre Observational Study
Yael Gelfer, MD, PhD; Sean Cavanagh; Anna Bridgens; Maryse Bouchard, MD, MSc, FRCSC; Elizabeth Ashby; Deborah Eastwood, MD
St George's Hospital, London, United Kingdom

35
2:08 PM–2:12 PM
Comparison of Clinical Outcomes, Parental Anxiety And Surgeon Satisfaction During Outpatient Clinic Versus Operating Room Setting for Achilles Tenotomy During Ponseti Method of Clubfoot Correction - A Randomized Control Trial
Karthick Sengoda Gounder Rangasamy; Premkumar Rajakumar; Nirmal Raj Gopinathan, MD
Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India

36

2:13 PM–2:17 PM

Effect of the Abduction Bracing on the Contralateral Foot in Patients with Unilateral Clubfoot Deformity: A Longitudinal Study

Kelly Jeans; Victoria Blackwood; Anthony Riccio, MD

Scottish Rite for Children, Dallas, TX, U.S.

2:18 PM–2:26 PM

Discussion

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2:27 PM–2:31 PM

Clubfoot Relapse Rates in Idiopathic Clubfoot using the Ponseti Method: 65 Years of Data from a Single Institution

Jose A. Morcuende, MD; Arianna Dalamaggas; Malynda Wynn

University of Iowa, Iowa City, IA, U.S.

38

2:32 PM–2:36 PM

Comparative Analysis of Three Anterior Tibialis Tendon Transfer Techniques In Idiopathic Clubfoot

Gregory Firth, MD; Javier Masquijo, MD; Alexandre Arkader, MD; Victoria Allende Nores, MD; Manoj Ramachandran, FRCS
Royal London Hospital, London, United Kingdom

39

2:37 PM–2:41 PM

Rebound of the Radiological Effect of Anterior Distal Tibia Epiphysiodesis in Relapsed Ponseti Treated Clubfoot Patients after Implant Removal

Arnold T. Besselaar; Maria Christine Van Der Steen; Isabelle Van Tilburg
Máxima Medisch Centrum, Veldhoven, Netherlands

2:42 PM–2:50 PM

Discussion

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2:51 PM–2:55 PM

Is There a Benefit to Rigid Fixation in Calcaneal Lengthening Osteotomy in Painful Pediatric Idiopathic Flatfoot Deformity? Comparing Results of Kirschner Wire versus Plate Fixation

Abhishek Tippabhatla; Beltran Torres-Izquierdo; Daniel Pereira; Zachary Meyer; Pooya Hosseinzadeh, MD
Washington University in St. Louis, St. Louis, MO, U.S.

41

2:56 PM–3:00 PM

Nonunion Rate of Evans Osteotomy Without Fixation in Pediatric Flatfoot

Smitha Mathew; Brian Gallagher; Megan Miles; Gregory Paul Guyton
MedStar Union Memorial Hospital, Baltimore, MD, U.S.

42

3:01 PM–3:05 PM

Improving Detection of Underlying Neurologic Etiology for Pediatric Cavovarus Foot Deformity: We Can Do Better

Mike O'Sullivan; Michelle Christie; Rusty Lynn Hartman; Jacob Zide, MD; Anthony Riccio, MD
Scottish Rite for Children, Dallas, TX, U.S.

3:06 PM–3:14 PM

Discussion

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3:15 PM–3:19 PM

Efficacy of Ponseti Casting in Arthrogryposis

Theresa A. Hennessey, MD; Ferran Romero; Amanda Purcell, MD; Angielyn San Juan; Bruce MacWilliams
Shriners Children's™ Salt Lake City, Salt Lake City, UT, U.S.

44

3:20 PM–3:24 PM

Is the Proximal Lateral Epiphysiodesis of the 1st Metatarsal Effective in the Correction of Hallux Valgus in the Pediatric Population?

*Emanuel Seïça; Teresa Clode Araújo; Afonso Cardoso; Susana Norte; Monika Thüsing, MD; Manuel Cassiano Neves
Hospital CUF Descobertas, Lisbon, Portugal*

45

3:25 PM–3:29 PM

The Creation and Validation of an Ankle Bone Age Atlas and Data Predicting Remaining Ankle Growth

*Andrew Pennock, MD; James David Bomar, MPH; Jason Pedowitz; Stephen Carveth, MD
Rady Children's Hosital, San Diego, San Diego, CA, U.S.*

3:30 PM–3:38 PM

Discussion

SESSION 3C – NEUROMUSCULAR
& CEREBRAL PALSY

Room: Cherry Blossom Ballroom

**Moderators: Jon Davids, MD and
Elke Viehweger, MD, PhD**

2:00 PM–3:38 PM

2:00 PM–2:02 PM

Welcome & Remarks

46

2:03 PM–2:07 PM

Hip Progression after Triradiate Cartilage Closure in Ambulatory Cerebral Palsy: Who Needs Continued Surveillance?

*Amelia M. Lindgren, MD; Ali Asma; Kenneth Rogers, PhD, ATC; Freeman Miller, MD; M. Wade Shrader, MD; Jason Howard, MD
Nemours Children's Hospital, Wilmington, DE, U.S.*

47

2:08 PM–2:12 PM

How well does Physical Examination Predict Radiographic Hip Displacement in Children with Cerebral Palsy?

*Unni G. Narayanan, MD, FRCSC; N. Susan Stott, MD; Darcy Fehlings; H. Graham, MD, FRCS; Kishore Mulpuri, MBBS, MHSc, FRCSC; Benjamin J. Shore, MD, MPH, FRCSC; M. Wade Shrader, MD; Moon Seok Park; Tim Theologis, MSc, PhD; Marek Jozwiak; Jon R. Davids, MD; Eva M. Ponten, MD, PhD; Gunnar Hagglund; Bjarne Moeller-Madsen, MD, PhD; Uri Givon, MD; Deborah Eastwood, MD; Tom F. Novacheck, MD; Cerebral Palsy Hip Outcomes Project (CHOP)
The Hospital for Sick Children (SickKids), Toronto, ON, Canada*

48

2:13 PM–2:17 PM

Femoral Head Shaft Angle Changes Based on Severity of Neurologic Impairment in Children with Cerebral Palsy and Spinal Muscle Atrophy

*Luiz Carlos Almeida Da Silva; Yusuke Hori; Burak Kaymaz; Kenneth Rogers, PhD, ATC; Arianna Trionfo, MD; Jason Howard, MD; J. Richard Bowen, MD; M. Wade Shrader, MD; Freeman Miller, MD
Nemours Children's Hospital, Wilmington, DE, U.S.*

2:18 PM–2:26 PM

Discussion

49

2:27 PM–2:31 PM

Proximal Femur Guided Growth for Spastic Hip Displacement in Cerebral Palsy Children - Long-term Follow-up

*Wei-Chun Lee, MD, PhD; Szu-Yao Wang; Hsuan Kai Kao, MD; Wen-E Yang, MD; Chia-Hsieh Chang, MD, PhD
Chang Gung Memorial Hospital, Taipei, Taiwan*

50

2:32 PM–2:36 PM

Does the Addition of Proximal Femoral Epiphysiodesis in Neuromuscular Hips Improve Caput Valgum?

M. Bryant Transtrum; Katelyn S. Rourk; Julia Todderud; Christina Regan; Anthony A. Stans, MD; William J. Shaughnessy, MD; A. Noelle Larson, MD; Todd A. Milbrandt, MD; Emmanouil (Manos) Grigoriou, MD
Mayo Clinic, Rochester, MN, U.S.

51

2:37 PM–2:41 PM

Medialization at The Osteotomy Site May Reduce Relapse after Varus De-Rotational Osteotomy (VDRO) of the Proximal Femur in Cerebral Palsy

Frederico Vallim; Eduardo Duarte Pinto Godoy; Juliana Lyra; Joao Antonio Matheus Guimaraes; Marcello Henrique Nogueira-Barbosa; H. Graham, MD, FRCS
Hospital Estadual da Criança, Rio de Janeiro, Brazil

2:42 PM–2:50 PM

Discussion

52

2:51 PM–2:55 PM

Combined Pelvic Osteotomy and Proximal Femur Guided Growth for Serious Hip Subluxation in Cerebral Palsy Children

Kuan-wen Wu, MD; Hsiang Chieh Hsieh; Chia-Che Lee; Ting-ming Wang, MD; Ken N. Kuo, MD
National Taiwan University Hospital, Taipei, Taiwan

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2:56 PM–3:00 PM

Medium Term Results after Femoral Head Resection and Subtrochanteric Valgus Osteotomy in Children and Adolescents with Cerebral Palsy

Ralf D. Stuecker, MD; Madeleine Marowsky; Oliver Jungesblut; André Strahl; Martin Rupprecht
Childrens Hospital Hamburg-Altona, Hamburg, Germany

54

3:01 PM–3:05 PM

The Association Between Hip Displacement, Scoliosis and Pelvic Obliquity in 106 Nonambulatory Patients with Cerebral Palsy: A Longitudinal, Population-Based Study

Terje Terjesen; Svend Vinje; Thomas Kibsgård
Oslo University Hospital, Rikshospitalet, Oslo, Norway

3:06 PM–3:14 PM

Discussion

55

3:15 PM–3:19 PM

The Evaluation of Total Hip Replacement in Management of Spastic Painful Hip Dislocation in Cerebral Palsy

Andrzej Sionek; Bartosz Babik; Jaroslaw Czubak
Gruca Teaching Hospital CMKP, Warsaw-Otwock, Poland

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3:20 PM–3:24 PM

Inter Rater Reliability of a Photo-Based Modified Foot Posture Index (MFPI) in Identifying Severity of Foot Deformity in Children with Cerebral Palsy

Beltran Torres-Izquierdo; Jason Howard, MD; Sean Tabaie, MD; Mara S. Karamitopoulos, MD; Benjamin J. Shore, MD, MPH, FRCSC; Monica Payares-Lizano, MD; Robert Lane Wimberly, MD; M. Wade Shrader, MD; Kristan A. Pierz, MD; Andrew Gregory Georgiadis, MD; Jason Rhodes, MD; Jon R. Davids, MD; Rachel Mednick Thompson, MD; Pooya Hosseinzadeh, MD
Washington University in St. Louis, St. Louis, MO, U.S.

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3:25 PM–3:29 PM

Impact of Femoral Derotation Osteotomy and Equinus Varus Foot Correction on Transverse Plane Asymmetry in Patients with Hemiplegic Cerebral Palsy

Mauro Cesar Moraes Filho, MD; Marcelo Hideki Fujino; Catia Miyuki Kawamura; Jose Augusto Fernandes Lopes; Fernanda Piumbini Azevedo
AACD, São Paulo, Brazil

3:30 PM–3:38 PM Discussion

2:18 PM–2:26 PM Discussion

SESSION 3D – INFECTIONS & TUMORS

Room: National Harbor 2-3

*Moderators: James McCarthy, MD, MHCM
and Marta Salom, MD, PhD*

2:00 PM–3:38 PM

2:00 PM–2:02 PM Welcome & Remarks

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2:03 PM–2:07 PM

Aspirations Dashed: Serum Neutrophil-to-Lymphocyte Ratio is Not a Good Predictor of Septic Arthritis of the Hip and Knee in Pediatric Patients

*Christopher John DeFrancesco, MD; David Peter VanEenaam; Carter Hall; Vineet Desai; Kevin Jossue Orellana; Wudbhav N. Sankar, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

59

2:08 PM–2:12 PM

Severity of Osteomyelitis - the Bug is the Problem

*Haemish A. Crawford, MD; Anna McDonald; Simon Swift; Jillian Cornish; Reece Joseph; Sophia Huiyao Hamada-Zhu; Christina Straub; Brya Matthews
Starship Children's Hospital, Auckland, New Zealand*

60

2:13 PM–2:17 PM

Featherweight versus Heavyweight of Pediatric Musculoskeletal Infections: Kingella vs. the Titans of Staphylococcus and Streptococcus

*Brian Quincey Hou; Malini Anand; William Franklin Hefley; Katherine Sara Hajdu; Stephen Chenard; Anoop Chandrashekar; Naadir Jamal; Michael Joseph Greenberg; Courtney Baker, MD; Stephanie N. Moore-Lotridge, PhD; Jonathan G. Schoenecker, MD, PhD
Vanderbilt University Medical Center, Nashville, TN, U.S.*

61

2:27 PM–2:31 PM

Low Prevalence of Anaerobic Bacteria in Pediatric Septic Arthritis Makes Obtaining Anaerobic Cultures of Questionable Value

*Maia Regan; David A. Spiegel, MD; Kenneth Smith; Keith D. Baldwin, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

62

2:32 PM–2:36 PM

Tiny Humans vs. a Deadly Disease: An Epidemiologic Review of Necrotizing Fasciitis in Pediatric Patients

*Stephanie N. Moore-Lotridge, PhD; Samuel Johnson; Wendy Ramalingam, BS, MD; Jonathan G. Schoenecker, MD, PhD
Vanderbilt University Medical Center, Nashville, TN, U.S.*

63

2:37 PM–2:41 PM

Awake Biopsy in Paediatric Patients with Suspected Musculoskeletal Malignancy is Safe, Feasible, Cost-Effective and Reduces Time to Tissue Diagnosis

*Huw RF Walters; Alpesh Kothari, MA, BM, BCh, AFHEA, MSc, DPhil, FRCS; Max Mifsud; Andrew Wainwright; Karen Partington
Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom*

2:42 PM–2:50 PM Discussion

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2:51 PM–2:55 PM

Comparison of Diaphyseal Reconstruction Techniques of the Lower Limbs in Childhood Malignant Tumors: Long Term Results

*Edouard Haumont; Lys Budiarta; Manon Pigeolet; Marine De Tienda; Frank Fitoussi; Stephanie Pannier, MD, PhD; Eric Mascard
Necker - Enfants Malades, Paris, France*

65
2:56 PM–3:00 PM
Survivorship of Custom-Made Non-Invasive Extendable Implants in Paediatric Sarcoma Patients
Max Mifsud; Ruben Thumbadoo; Tim Theologis, MSc, PhD
Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom

66
3:01 PM–3:05 PM
Sufficiency of Isolated Vascularised Fibula for Intercalary Reconstruction
Laura Saenz; Sevan Hopyan, MD
The Hospital for Sick Children (SickKids), Toronto, ON, Canada

3:06 PM–3:14 PM Discussion

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3:15 PM–3:19 PM
Femoral Head Cartilage Window Approach Combined with Artificial Bone Implantation for Treatment of Epiphyseal Chondroblastoma in Children
Xuemin Lyu, MD, PhD; Zheng Yang
Beijing Jishuitan Hospital, Beijing, People's Republic of China

68
3:20 PM–3:24 PM
Evidence Based Recommendations for Treating Pediatric Desmoid Tumors: Consensus of the Desmoid Tumor Working Group ♦
Benjamin A. Alman, MD, FRCSC; The Desmoid Tumor Working Group
Duke University, Durham, NC, U.S.

♦ Indicates a presentation in which the FDA has not cleared the drug and/or medical device for the use described (i.e., the drug or medical device is being discussed for an “off label” use)."

69
3:25 PM–3:29 PM
Retrospective Analysis and Characterization of Avascular Necrosis in Pediatric Leukemia/Lymphoma Patients Using BLAST Classification
Amin Alayleh; Hiba Naz; Vanessa Taylor; Taylor Renee Johnson; Saima Farook; Grady Harrison Hofmann; Chiamaka Nneka Obilo; Katie Harbacheck; Tara Anne Laureano; Stephanie M. Smith; Karen Chao; Stuart B. Goodman; Kevin G. Shea, MD
Stanford University, Palo Alto, CA, U.S.

3:30 PM–3:38 PM Discussion

SESSION 4A – CONGENITAL, SYNDROMIC, & DYSPLASIAS

Room: Cherry Blossom Ballroom
Moderators: Stephanie Boehm, MD and Klane White, MD, MSc

4:12 PM–5:26 PM

4:12 PM–4:14 PM Welcome & Remarks

70
4:15 PM–4:19 PM
Survival of Telescoping Rods Decreases with Successive Surgeries in Patients With Osteogenesis Imperfecta
Cynthia Nguyen, MD; Chris Makarewich, MD; Selina Poon, MD; Robert Hyun Cho, MD; Theresa A. Hennessey, MD
Shriners Children's™ Southern California, Pasadena, CA, U.S.

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4:20 PM–4:24 PM
Augmentation of Submuscular Plates in Addition to Telescopic Rodding in the Management of Long Bone Fractures in Patients with Osteogenesis Imperfecta
Baris Gorgun; Onur Oto; Sema Ertan Birscl; Ozan Ali Erdal; Muharrem Inan, MD
Ortopediatri Istanbul, Academy of Pediatric Orthopaedics, Istanbul, Turkey

72
4:25 PM–4:29 PM
Long Term Outcomes of Intramedullary Nails in Osteogenesis Imperfecta: Fewer Surgeries and Longer Survival Times with Telescoping Rods in Patients with Over Ten Years Follow Up
Cynthia Nguyen, MD; Chris Makarewich, MD; Selina Poon, MD; Robert Hyun Cho, MD; Theresa A. Hennessey, MD
Shriners Children's™ Southern California, Pasadena, CA, U.S.

4:30 PM–4:38 PM Discussion

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4:39 PM–4:43 PM
Prophylactic Intramedullary Rodding Following Femoral Lengthening in Patients with Achondroplasia and Hypochondroplasia
Cesar G. Fontecha; Pilar Rovira Martí
Sant Joan de Déu Children Hospital Barcelona, Barcelona, Spain

74
4:44 PM–4:48 PM
Spinal Surgery in Achondroplasia: Causes of Reoperation and Reduction of Risks
Arun R. Hariharan, MD, MS; Hans K. Nugraha; Aaron Huser, DO; David S. Feldman, MD
Paley Orthopedic & Spine Institute, West Palm Beach, FL, U.S.

75
4:49 PM–4:53 PM
Collagen-Type 2 Skeletal Dysplasias: Key Clinical, Radiographic, and MRI Findings Guide Cervical Stabilization Decision-Making
Bryan Menapace, MD, MBA; Colleen P. Ditro, DNP, CPNP; Kenneth Rogers, PhD, ATC; Jeffrey Campbell; William G. Mackenzie, MD; Stuart Mackenzie, MD
Nemours Children's Hospital, Wilmington, DE, U.S.

4:54 PM–5:02 PM Discussion

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5:03 PM–5:07 PM
Screening and Early Management of Hips in Children with Spina Bifida Following Prenatal Surgical Closure
Domenic Grisch, MD; Aurelia Hof; Britta Krautwurst; Thomas Dreher, MD
University Children's Hospital Zurich, Zurich, Switzerland

77
5:08 PM–5:12 PM
Does Open Reduction of Arthrogryptic Hips Cause Stiffness?
Harold J.P. Van Bosse, MD; David Teytelbaum; Solomon Samuel; Vinieth Bijanki; Stephen Silva
St. Louis University, St. Louis, MO, U.S.

78
5:13 PM–5:17 PM
Burosomab Reduces the Need for Hemiepiphysiodesis in Hypophosphataemic Rickets
Christopher James Marusza; Zakir Haider; Kelvin Miu; Daniel Thomas Fontannaz; Deborah Eastwood, MD
Great Ormond Street Hospital for Children, London, United Kingdom

5:18 PM–5:26 PM Discussion

SESSION 4B – HAND & UPPER EXTREMITY

Room: National Harbor 2-3
Moderators: Sebastian Farr, MD and Julie Samora, MD, PhD

4:12 PM–5:26 PM

4:12 PM–4:14 PM Welcome & Remarks

79
4:15 PM–4:19 PM
Ethnicity is A Risk Factor for Permanent Brachial Plexus Birth Injury
Petra Grahn, MD; Aarno Yrjana Nietosvaara, MD, PhD; Mika Gissler; Marja Kaijomaa
Helsinki University Hospital, New Children's Hospital, Helsinki, Finland

80

4:20 PM–4:24 PM

Sprengel Deformity: What is the Functional Outcome and Quality of Life after Surgery According to the EQ-5D-Y and the Short Version of Disabilities of the Arm, Shoulder and Hand Questionnaire (quickDASH)?

*Carina Antfang; Adrien Frommer; Georg Gosheger; Robert Roedel; Andrea Marira Laufer; Gregor Toporowski; Henning Tretow; Jan Duedal Rölting; Bjoern Vogt, MD
Uniklinik Münster, Muenster, Germany*

81

4:25 PM–4:29 PM

Medium- and Long-Term Clinical and Functional Outcomes of Modified Green's Procedure for Sprengel Shoulder in Children

*Giovanni Trisolino; Marco Todisco; Paola Zarantonello; Giovanni Di Gennaro; Alessandro Depaoli; Gino Rocca
IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy*

4:30 PM–4:38 PM Discussion

82

4:39 PM–4:43 PM

Osteot-Oh My! Contemporary Surgical Techniques May Reduce Revision Rates following Preaxial Polydactyly Reconstruction

*Eliza Buttrick, BA; Sarah L. Struble; Shaun Mendenhall; Benjamin Chang; Sulagna Sarkar; Apurva S. Shah, MD, MBA
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

83

4:44 PM–4:48 PM

Surgical vs. Nonsurgical Management of Pediatric Ganglia - A Cost and Outcomes Analysis

*Bryce Bell; Umar Ghilzai; Zuhair Jameel Mohammed; Christine Yin; Abdullah Ghali; Qianzi Zhang
Baylor College of Medicine, Houston, TX, U.S.*

84

4:49 PM–4:53 PM

Tendon Transfer in Spastic Cerebral Palsy Upper Limb

*Mahzad Javid, MD; G. Hossain Shahcheraghi, MD
Shiraz Medical University, Shiraz, Iran*

4:54 PM–5:02 PM Discussion

85

5:03 PM–5:07 PM

Factors Influencing Return of Elbow Motion Following Pinning of Displaced Supracondylar Humeral Fractures

*Akbar Nawaz Syed; Pooja Nilesh Balar; Margaret Bowen; J. Todd Lawrence, MD, PhD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

86

5:08 PM–5:12 PM

Development of a New Classification for Forearm Involvement in Patients with Multiple Hereditary Exostosis (MHE) Using the Delphi Process

*Carley Vuillermier, FRACS, MBBS, MPH; Maria F. Canizares MD MPH; CoULD Study Group
Boston Children's Hospital, Boston, MA, U.S.*

87

5:13 PM–5:17 PM

Flippin' Out Over Gymnast Wrist: Presentation and Treatment of Distal Radial Physeal Stress Syndrome in Young Gymnasts

*David Peter VanEenenaam; Scott J. Mahon; Naomi Brown; Joseph Yellin, MD; Apurva S. Shah, MD, MBA
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

5:18 PM–5:26 PM Discussion

SESSION 4C – NEUROMUSCULAR

Room: Woodrow Wilson Ballroom
*Moderators: Unni Narayanan, MD, FRCSC
and Ana Presedo, MD, MSc*

4:12 PM–5:26 PM

4:12 PM–4:14 PM Welcome & Remarks

88
4:15 PM–4:19 PM
Cerebral Palsy in the British Orthopaedic Surgery Surveillance Study (CPinBOSS)
*Marie-Caroline Nogaro; Julie Stebbins;
Daniel Christopher Perry, FRCS (ORTH);
Tim Theologis, MSc, PhD
University of Oxford, Oxford, United Kingdom*

89
4:20 PM–4:24 PM
Health-Related Quality of Life in Ambulatory Children with Physical Disabilities
*Chris Church; Sana Patil; Stephanie Butler;
Freeman Miller, MD; Jose De Jesus Salazar-Torres; Nancy Lennon, MS, PT, DPT; M. Wade Shrader, MD; Maureen Donohoe; Faithe Rassias Kalisperis; Stuart Mackenzie, MD; L. Reid Boyce Nichols, MD; Nemours Gait Lab
Nemours Children's Hospital, Wilmington, DE, U.S.*

90
4:25 PM–4:29 PM
What is the Prevalence of Depressive Symptoms and Antidepressant Use Among Adult Patients with Cerebral Palsy?
*Michael G. Vitale, MD, MPH; Chun Wai Hung; Daniel Linhares; Afrain Z. Boby; Hiroko Matsumoto, PhD; Joshua E. Hyman, MD;
David P. Roye, MD
Columbia University, New York, NY, U.S.*

4:30 PM–4:38 PM Discussion

91
4:39 PM–4:43 PM
Accuracy and Reliability of Mobile App Enhanced Observational Gait Analysis in Children with Cerebral Palsy
*Donald T. Kephart; Jon R. Davids, MD;
Vedant A. Kulkarni, MD
Shriners Children's™ Northern California, Sacramento, CA, U.S.*

92
4:44 PM–4:48 PM
The Risk Factors Associated with Increased Anterior Pelvic Tilt in Ambulatory Children with Cerebral Palsy
*Chris Church; Jose De Jesus Salazar-Torres; Tanmayee Joshi; Nancy Lennon, MS, PT, DPT; Thomas Shields; John Henley; Freeman Miller, MD; M. Wade Shrader, MD; Jason Howard, MD
Nemours Children's Hospital, Wilmington, DE, U.S.*

93
4:49 PM–4:53 PM
The Association Between Increase in Knee Range of Motion and Patient Satisfaction After Rectus Femoris Transfer in Cerebral Palsy
*Mauro Cesar Morais Filho, MD; Marcelo Hideki Fujino; Catia Miyuki Kawamura; Jose Augusto Fernandes Lopes; Ageu Saraiva
AACD, São Paulo, Brazil*

4:54 PM–5:02 PM Discussion

94
5:03 PM–5:07 PM
Is the CPCHILD Questionnaire Responsive - Assessing HRQoL Changes and Performance of the CPCHILD after Hip and Spine Surgery in Children with Severe Cerebral Palsy
*Lennert Plasschaert, MD; Patricia E. Miller, MS; Rachel DiFazio, PhD, RN; Brian D. Snyder, MD; Colyn Watkins, MD; Travis Matheney, MD; Benjamin J. Shore, MD, MPH, FRCSC
Boston Children's Hospital, Boston, MA, U.S.*

95

5:08 PM–5:12 PM

Disease-Modifying Therapy Changed the Natural Course of Spinal Muscular Atrophy Type 1: What About Spine and Hip?

Niyazi Erdem Yasar; Guzelali Ozdemir; Elif Uzun Ata; Naim Ata; Mahir Mustafa Ülgü; Ebru Dumlupinar; Suayip Birinci; Izzet Bingöl; Senol Bekmez, MD
Ankara Bilkent Children's Hospital, Ankara, Turkey

96

5:13 PM–5:17 PM

Increased Knee Range of Motion in Patients with Arthrogryposis: Minimum 2-year Follow-up

Aaron Huser, DO; Michael William Brown; Arun R. Hariharan, MD, MS; Hans K. Nugraha; David S. Feldman, MD
Paley Orthopedic & Spine Institute, West Palm Beach, FL, U.S.

5:18 PM–5:26 PM

Discussion

SESSION 4D – SLIPPED CAPITAL FEMORAL EPIPHYSIS

Room: Potomac Ballroom

Moderators: Catharina Chiari, MD, MSc and Wudbhav N. Sankar, MD

4:12 PM–5:26 PM

4:12 PM–4:14 PM

Welcome & Remarks

97

4:15 PM–4:19 PM

Obesity-Related Alterations in Capital Femoral Epiphysis Morphology: An Extensive Analysis of 8717 Hips Utilizing Automated 3D-CT Imaging

Eduardo Novais, MD; Mohammadreza Movahhedi; Mallika Singh; Nazgol Tavabi; Shanika De Silva; Sarah D. Bixby; Ata M. Kiapour, PhD, MMSc
Boston Children's Hospital, Boston, MA, U.S.

98

4:20 PM–4:24 PM

Intraoperative Perfusion Monitoring does not Reliably Predict Osteonecrosis following Treatment of Unstable SCFE

Bridget Ellsworth, MD; Julianna Lee; Wudbhav N. Sankar, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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4:25 PM–4:29 PM

Bone Scintigraphy Can Predict Post-Operative Femoral Head Avascular Necrosis in Children with Hip Trauma and Slipped Capital Femoral Epiphysis

Patrick Curran, MD; Katharine Hollnagel; James David Bomar, MPH; V. Salil Upasani, MD
Rady Children's Hosital, San Diego, San Diego, CA, U.S.

4:30 PM–4:38 PM

Discussion

100

4:39 PM–4:43 PM

Epiphyseal Stability Increases Specificity of the Loder Classification System in Prognosticating AVN after Slipped Capital Femoral Epiphysis

Katherine Sara Hajdu; Emilie Amaro Zoldos; Courtney Baker, MD; Simone Herzberg; Benjamin Asbury; Stephanie N. Moore-Lotridge, PhD; Kevin Michael Dale, MD; David Ebenezer, MD; Nathaniel Lempert, MD; Craig R. Louer, MD; Jeffrey E. Martus, MD; Gregory A. Mencio, MD; Jonathan G. Schoenecker, MD, PhD; Vanderbilt SCFE Study Group
Vanderbilt University Medical Center, Nashville, TN, U.S.

101

4:44 PM–4:48 PM

Rate and Risk Factors for Contralateral Slippage in Adolescents Treated for Slipped Capital Femoral Epiphysis: A Comprehensive Analysis of 3,528 Cases

David Momtaz; Rishi Gonuguntla; Aaron Singh; Mehul Mittal; Beltran Torres-Izquierdo; Pooya Hosseinzadeh, MD

Washington University in St. Louis, St. Louis, MO, U.S.

102

4:49 PM–4:53 PM

Temporary In Situ Pinning with Subsequent Modified Dunn is a Safe Alternative to Primary Modified Dunn

Jordyn Adams, BA; Graham Whiting; Jordan Archer; Courtney Selberg, MD

Children's Hospital Colorado, Aurora, CO, U.S.

4:54 PM–5:02 PM

Discussion

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5:03 PM–5:07 PM

Risk Factors of Vitamin D Deficiencies on SCFE Development

David Momtaz; Abhishek Tippabhatla; Rishi Gonuguntla; Mehul Mittal; Beltran Torres-Izquierdo; Pooya Hosseinzadeh, MD; Zachary Meyer

Washington University in St. Louis, St. Louis, MO, U.S.

104

5:08 PM–5:12 PM

Intertrochanteric Imhauser's Osteotomy Combined with Osteochondroplasty in Management of Slipped Capital Femoral Epiphysis

Mostafa Baraka

Ain Shams University, Cairo, Egypt

105

5:13 PM–5:17 PM

Long-Term Outcomes for Total Joint Arthroplasties in Pediatric and Young Adult Populations

Andrea Rogers; Gabrielle J. Patin; Carson L. Keeter; Nathan Donaldson, DO

Children's Hospital Colorado, Aurora, CO, U.S.

5:18 PM–5:26 PM

Discussion

SESSION 5 – BAG O’ BONES

Room: Potomac Ballroom

Moderators: John “Jack” Flynn, MD and
Manoj Ramchandran, MD, FRCS

9:45 AM–11:26 AM

9:45 AM–9:50 AM Welcome & Remarks

106

9:51 AM–9:55 AM

Universal Ultrasound Screening for DDH
May Be Cost Effective: A Markov Decision
Analysis Model Incorporating the Entire
Lifespan

Joshua Bram; Drake Glenn LeBrun; Peter
Cirrincione; Erikson Nichols; Bridget Ellsworth,
MD; Ernest Sink, MD; Emily Dodwell, MD
Hospital for Special Surgery, New York, NY, U.S.

107

9:56 AM–10:00 AM

Deep-Learning Algorithm Accurately
Measures Migration Percentage on Hip
Surveillance Radiographs

Vedant A. Kulkarni, MD; Chun-Hsiao Yeh; Anna
Kay; Michael Eli Firtha, DO; Marie Villalba;
Patrick Donohue; H. Graham, MD, FRCS; Unni
G. Narayanan, MD, FRCSC; Stella X. Yu
Shriners Children’s™ Northern California,
Sacramento, CA, U.S.

108

10:01 AM–10:05 AM

Suprainguinal Fascia Iliaca Nerve Blocks
Outperform Epidural Analgesia in Patients
Undergoing Periacetabular Osteotomy

David Peter VanEenenaam; Stefano Cardin,
MD; Wallis Muhly; Wudbhav N. Sankar, MD
Children’s Hospital of Philadelphia,
Philadelphia, PA, U.S.

10:06 AM–10:14 AM Discussion

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10:15 AM–10:19 AM

Virtual Children’s Fracture Clinic –
A Prospective Study of 5536 Patients
Confirming That Efficiency & Cost Saving
Does Not Compromise Safety

Anish P. Sanghrajka, FRCS (ORTH); Kareem
Edres; Aly Pathan; Matthew Edward Kenneth
Goodbun; Joe Hwong Pang; Graeme Carlile;
Rajiv Merchant; Helen Chase
Norfolk & Norwich University Hospitals,
Norwich, United Kingdom

110

10:20 AM–10:24 AM

Are Children with Low-Energy Fractures
Vitamin D Deficient?

Si Heng Sharon Tan; Andrew Lim; Rishi
Malhotra; Zackary Chua; James Hoi
Po Hui, FRCSE
National University Health System, Singapore,
Singapore

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10:25 AM–10:29 AM

Predictors of Complication in Pediatric
Hardware Removal

Pablo Coello; David A. Hsiou; Luke Austin
Nordstrom; Todd Phillips; Rachel Silverstein,
MD; Scott B. Rosenfeld, MD
Texas Children’s Hospital, Houston, TX, U.S.

10:30 AM–10:38 AM Discussion

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10:39 AM–10:43 AM

Significant Improvement in Health-Related
Quality of Life following Surgical Treatment
of Congenital Muscular Torticollis among
a Two-Year Follow-Up Cohort of Children,
Adolescents, and Young Adults

Per Reidar Hoiness, MD, PhD; Anja Medbø
Oslo University Hospital, Oslo, Norway

113

10:44 AM–10:48 AM

The Hidden Consequences of Advanced Operative Spine Imaging in Children: Do the Suggested Benefits of Intraoperative Computed Tomography & Navigation in Posterior Spinal Fusion for Adolescent Idiopathic Scoliosis Outweigh the Possible Lifetime Oncological Risks of Increased Radiation Exposure?

*Bram Verhofste; Brendan M. Striano; Alex Crawford; Andrew M. Hresko; Andrew Schoenfeld; Andrew K. Simpson; Daniel Hedequist, MD
Boston Children's Hospital, Boston, MA, U.S.*

114

10:49 AM–10:53 AM

Radiation Shielding During Bedside Fluoroscopy Reduces Radiation Exposure to Pediatric Patients

*Steven Zhang; William Huffman; Caroline Fay; Margaret Bowen; Divya Talwar; J. Todd Lawrence, MD, PhD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

10:54 AM–11:02 AM Discussion

115

11:03 AM–11:07 AM

Suicidal Ideation in Pediatric Orthopaedic Patients

*Taylor Zak; Whitney Meghan Herge, PhD; Chan-Hee Jo, PhD; Anthony Riccio, MD
Scottish Rite for Children, Dallas, TX, U.S.*

116

11:08 AM–11:12 AM

From Bytes to Bones: Assessing the Ability of ChatGPT to Educate Patients and Families in Pediatric Orthopedic Surgery

*Alex Gornitzky, MD; Raghav Badrinath, MD; Joseph Yellin, MD; Brett R. Lullo, MD
Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, U.S.*

117

11:13 AM–11:17 AM

Greater Obstetric Barriers for Female Orthopaedic Surgeons Compared to the General Population and Peer Physicians

*Emily Reeson; Gwen Grimsby; Melissa Esparza, MD; Heather Menzer, MD
Phoenix Children's Hospital, Phoenix, AZ, U.S.*

11:18 AM–11:26 AM Discussion

11:27 AM–11:37 AM

2025 Meeting Preview

Room: Potomac Ballroom

LEAD LIKE LORI LECTURE**Room: Potomac Ballroom**

12:10 PM–1:20 PM



In 2022, we tragically lost one of the greats of the pediatric orthopaedic community. Dr. Lori Karol was a friend and mentor to many and an inspiration to all. Her distinguished career includes the devoted care of many children with complex issues, landmark research, and the training of countless young surgeons. She was not only a trailblazer but excelled at fostering conversations and connections among POSNA members. As the first female president of POSNA, she not only brought decades of experience but also diversity to the senior leadership and had a hand in welcoming many of us into this society.

In the hopes of filling some of the void that is left by her absence, we have instituted a 3-year leadership lecture series to be held at the Annual Meeting. Funded by donations in her honor, we look forward to hearing from inspiring and inciteful speakers who are trailblazers in their own right in the world outside of pediatric orthopaedics. We hope that you enjoy the unique perspectives that each will bring and the opportunity to continue building on the many leadership lessons she instilled in us.

KEYNOTE: HABITS, HOPE, AND HEROES

Captain Tammie Jo Shults possessed an early interest in flying, but she faced various obstacles on her path to becoming a military pilot. Applying her lifelong trait of perseverance, she eventually became one of the first female F/A-18 Hornet pilots in the United States Navy.

After concluding her Navy career, she became a pilot for Southwest Airlines. Tammie Jo's incredible history and talent received wide acclaim on April 17, 2018, when she successfully landed a Southwest Boeing 737 after an engine exploded at high altitude, causing multiple system failures and a rapid depressurization. The successful landing of Flight 1380 in Philadelphia saved 148 total lives, including passengers and crew as

detailed in her National Best Seller book, *Nerves of Steel*.

Tammie Jo and her husband Dean live in Texas, and Dean also enjoys flying for Southwest Airlines. The couple has two adult children and are committed to living out their faith and serving in their community. They are active in their church and volunteer at a school focusing on at-risk youth. While Tammie Joe retired from commercial flying in September 2020, she continues to dedicate herself to volunteer piloting and serves on various boards, including the first DOT Women's In Aviation Advisory Board to the FAA, Pearl Harbor Aviation Board, and the Naval Aviation Museum Foundation Board. In addition, she has received a number of aviation awards, the latest being inducted into the International Aviation Hall of Fame.

SESSION 6 – AWARD-
NOMINATED PAPERS PART I

Room: Potomac Ballroom

Moderators: *Nicholas Fletcher, MD and
Ralph Sakkars, MD, PhD*

8:00 AM–9:00 AM

8:00 AM–8:05 AM Welcome & Remarks

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8:06 AM–8:10 AM

**Full Thickness Skin Graft Versus Hyaluronic
Acid Skin Graft Substitute in Syndactyly
Release: A Randomized Trial**

*Ann Van Heest; Deborah Bohn, MD; Jamie N.
Price; Susan A. Novotny, PhD; Tonye Sylvanus
Gillette Children's, St. Paul, MN, U.S.*

119

8:11 AM–8:15 AM

**Outcomes Following Operative vs. Non-
Operative Treatment of Completely
Displaced Midshaft Clavicle Fractures in
Adolescent Baseball Players and Other
Overhead Athletes**

*Eric W. Edmonds, MD; David D. Spence, MD;
Michael Quinn; Benton E. Heyworth, MD;
FACTS Study Group
Boston Children's Hospital, Boston, MA, U.S.*

8:16 AM–8:23 AM Discussion

120

8:24 AM–8:28 AM

**Two-Year Patient-Reported Outcomes and
Graft Rupture Following ACL Reconstruction
in Skeletally Immature Athletes: Results from
the PLUTO (Pediatric ACL: Understanding
Treatment Options) Prospective Cohort
Study**

*Mininder S. Kocher, MD, MPH; Lauren E.
Hutchinson, MPH; Danielle Cook; Jeffrey Kay;
Benton E. Heyworth, MD; PLUTO Study Group
Boston Children's Hospital, Boston, MA, U.S.*

121

8:29 AM–8:33 AM

**Fabrication of a Biomimetic 3D Printed
Scaffold for the Treatment of Large
Osteochondral Defects in an Adolescent
Porcine Model: Outcomes at 6 Months**

*Sanjoy Kumar Ghorai; Patrick William Whitlock,
MD, PhD; Sumit Murab; Anish Gangavaram;
Chia-Ying James Lin; Jenna Hall
Cincinnati Children's Hospital Medical Center,
Cincinnati, OH, U.S.*

8:34 AM–8:41 AM Discussion

122

8:42 AM–8:46 AM

**Long-term Outcome of Nonoperative
Treatment of Perthes Disease - 244 Hips with
a Mean Follow-Up of 48 Years**

*Anders Wensaas; Chiara Blatti; Terje Terjesen;
Stefan Huhnstock
Oslo University Hospital, Oslo, Norway*

123

8:47 AM–8:51 AM

**In Situ Fixation of Slipped Capital Femoral
Epiphysis Carries an Over 40% Risk for Later
Total Hip Replacement during a Long-Term
Follow-Up**

*Thomas Schlenzka; Joni Serlo; Timo Juhani
Viljakka; Kaj Tallroth; Ilkka J. Helenius, MD
Helsinki University Hospital, Helsinki, Finland*

8:52 AM–8:59 AM Discussion

9:00 AM–9:05 AM Introduction

POSNA PRESIDENTIAL SPEAKER

Room: Potomac Ballroom

9:00 AM–9:25 AM

9:00 AM–9:05 AM Introduction
9:05 AM–9:25 AM *Lawrence Lenke, MD*

SESSION 7 – AWARD-
NOMINATED PAPERS PART II

Room: Potomac Ballroom

Moderators: *Hakan Omeroglu, MD and
Daniel Sucato, MD, MS*

9:55 AM–11:24 AM

124

9:55 AM–9:59 AM

**Mid-Term Outcomes Following Vertebral
Body Tethering: A Single Center Cohort with
5+ Years of Follow-Up**

*Daniel G. Hoernschemeyer, MD; Sam Hawkins;
Nicole Tweedy, CPNP; Melanie E. Boeyer, PhD
University of Missouri, Columbia, MO, U.S.*

125

10:00 AM–10:04 AM

**A CNP Analog As Adjuvant Treatment
for Moderate-To-Severe Osteogenesis
Imperfecta in the Growing Mouse: A Pilot
Study**

*Jack Mulcrone; Ketsia Seide; Erin Carter; Nancy
Pleshko; Cathleen L. Raggio, MD
Hospital for Special Surgery, New York, NY, U.S.*

10:05 AM–10:12 AM Discussion

126

10:13 AM–10:17 AM

**Bi-Lateral and Bi-Level Erector Spinae
Plane Block in Pediatric Idiopathic Scoliosis
Surgery: A Randomized, Double-Blind,
Controlled Trial**

*Malgorzata Domagalska; Piotr Janusz, MD,
PHD; Tomasz Reysner; Grzegorz Kowalski;
Juliusz Huber; Przemyslaw Daroszewski;
Tomasz Kotwicki
University of Medical Sciences, Poznan, Poland*

127

10:18 AM–10:22 AM

**Local Wound Infiltration Reduces Acute
Postoperative Opioid Requirements in AIS:
A Prospective Double-Blind Randomized
Control Trial**

*Craig Munro Birch, MD; Sydney Lee; Kelsey
Mikayla Flowers Zachos; Shanika De Silva;
Grant Douglas Hogue, MD; Michael T. Hresko,
MD; Daniel Hedequist, MD
Boston Children's Hospital, Boston, MA, U.S.*

10:23 AM–10:30 AM Discussion

128

10:31 AM–10:35 AM

**Efficacy of a Multimodal Surgical Site
Injection in Pediatric Patients with Cerebral
Palsy Undergoing Hip Reconstruction: A
Randomized Controlled Trial**

*Danielle Brown; Christina-Angèle
Kaulueloa'ainalani Sun; Daniel McBride; Bailey
Young, DO; Vineeta Swaroop, MD; Rachel
Mednick Thompson, MD
UCLA, Los Angeles, CA, U.S.*

129

10:36 AM–10:40 AM

**Analysis of Regenerate Bone Formation
Using Internal Lengthening Nails in a Large
Animal Model: A Pilot Study**

*Christopher A. Iobst, MD; Anirejuoritse Babor;
Aidan Gene Isler; Sara McBride-Gagy; Kell
Sprangel
Nationwide Children's Hospital, Columbus,
OH, U.S.*

10:41 AM–10:48 AM Discussion

130

10:49 AM–10:53 AM

**Long-term Results of Epiphyseal Distraction
Prior to Resection (Cañadell's Technique)
in 169 Patients with Metaphyseal Pediatric
Bone Sarcomas**

*Jorge Gómez-Álvarez; José María Lamo-
Espinosa; Rocío López; Mikel San-Julián
Clínica Universidad de Navarra, Pamplona,
Spain*

131

10:54 AM–10:58 AM

Use of Serum Biomarkers and Cytokines to Differentiate Septic Arthritis, Osteomyelitis and Transient Synovitis in Pediatric and Adolescent Patients

Nichelle Enata; Kirsten Brouillet; Ling Chen; Kim Quayle; Scott J. Luhmann, MD
Washington University in St. Louis, St. Louis, MO, U.S.

10:59 AM–11:06 AM Discussion

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11:07 AM–11:11 AM

Kicking the Can in DDH: The Impact of Age on Outcomes Following Secondary Reconstructive Surgery for Residual Dysplasia

Shamrez Haider; Laura M. Mayfield, MPH; Corey Gill, MD; Harry K.W. Kim, MD; Daniel J. Sucato, MD, MS; David A. Podeszwa, MD; William Zachary Morris, MD
Scottish Rite for Children, Dallas, TX, U.S.

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11:12 AM–11:16 AM

Late-Diagnosed DDH is Rare in Finland with Universal Clinical Screening Program Complemented with Selective Ultrasonography

Emma Luoto; Jenni Katariina Jalkanen; Ilari Kuitunen; Reijo Sund; Aarno Yrjana Nietosvaara, MD, PhD
Kuopio University Hospital, Kuopio, Finland

11:17 AM–11:24 AM Discussion

SOCIETY AWARD WINNERS

Room: Potomac Ballroom

11:25 AM–12:00 PM

Promaximis Meritis Award

11:25 AM–11:30 AM Introduction
11:31 AM–11:41 AM Deborah Eastwood, MD

Distinguished Achievement Award

11:44 AM–11:49 AM Introduction
11:50 AM–12:00 PM Charles Johnston, MD

SESSION 8A – VERTEBRAL BODY TETHERING (VBT) & SAGITTAL PROFILE

Room: Potomac Ballroom

Moderators: Firoz Miyanji, MD, FRCSC and Frank Plasschaert, PhD

2:00 PM–3:38 PM

2:00 PM–2:02 PM Welcome & Remarks

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2:03 PM–2:07 PM

Navigation Versus Fluoroscopy for Anterior VBT Screw Placement, Analysis of 530 screws with Confirmatory 3D Imaging

Chunho Chen, MD; Jimmy Daher; A. Noelle Larson, MD; Todd A. Milbrandt, MD; Lawrence L. Haber, MD
Ochsner Hospital for Children, New Orleans, LA, U.S.

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2:08 PM–2:12 PM

Growth Modulation Response in Thoracic VBT Depends Primarily on Magnitude of Concave Vertebral Body Growth

Craig R. Louer, MD; V. Salil Upasani, MD; Jennifer Hurry; Hui Nian; Christine L. Farnsworth, MS; Peter O. Newton, MD; Stefan Parent, MD, PhD; Pediatric Spine Study Group; Ron El-Hawary, MD, MSc
Vanderbilt University Medical Center, Nashville, TN, U.S.

136

2:13 PM–2:17 PM

Spontaneous Correction of the Thoracic Curve in Lenke 5 Patients: Lumbar Vertebral Body Tether (VBT) versus Posterior Fusion

*Jennifer Marie Bauer, MD, MS; Suken A. Shah, MD; Jaysson T. Brooks, MD; Baron S. Lonner, MD; Amer F. Samdani, MD; Firoz Miyanji, MD, FRCSC; Peter O. Newton, MD; Burt Yaszay, MD; Harms Study Group
Seattle Children's Hospital, Seattle, WA, U.S.*

2:18 PM–2:26 PM Discussion

137

2:27 PM–2:31 PM

Are Outcomes Improving for AIS Following FDA HDE Approval?

*Lawrence L. Haber, MD; Melanie E. Boeyer, PhD; Daniel G. Hoernschemeyer, MD; Samantha C. Ahrens; Julia Todderud; Todd A. Milbrandt, MD; Susan Scariano; Nicole Tweedy, CPNP; A. Noelle Larson, MD
Ochsner Hospital for Children, New Orleans, LA, U.S.*

138

2:32 PM–2:36 PM

Outcomes in Patients with Tether Rupture After Anterior Vertebral Tethering (AVT) for Adolescent Idiopathic Scoliosis: The Good, The Bad, and The Ugly

*John T. Braun, MD; Sofia Federico; David Lawlor; Brian E. Grottkau, MD
Massachusetts General Hospital for Children, Boston, MA, U.S.*

139

2:37 PM–2:41 PM

Complications in Vertebral Body Tethering: What are the effects on Patient Reported Outcomes?

*Katherine Sborov; Mansi Agarwal; Michael J. Heffernan, MD; Jason Anari, MD; Benjamin D. Roye, MD; Stefan Parent, MD, PhD; Firoz Miyanji, MD, FRCSC; Selina Poon, MD
Shriners Children's™ Southern California, Pasadena, CA, U.S.*

2:42 PM–2:50 PM Discussion

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2:51 PM–2:55 PM

Implementation of the Team Integrated Enhanced Recovery (TIGER) Protocol Following Vertebral Body Tethering

*Daniel G. Hoernschemeyer, MD; Nicole Tweedy, CPNP; Melanie E. Boeyer, PhD
University of Missouri, Columbia, MO, U.S.*

141

2:56 PM–3:00 PM

Validation Study of MR Bone Like Image for Diagnosis of Stress Fracture (Spondylolysis) in the Lumbar Spine

*Yutaka Kinoshita; Toshinori Sakai; Kosuke Sugiura; Jiro Kobayashi; Misaki Okita; Koki Moriyama; Shigeki Ueki; Nozomu Yanaida; Koichi Sairyo
Tokushima University, Tokushima, Japan*

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3:01 PM–3:05 PM

Treatment and Health-Related Quality of Life of Acute Adolescent Spondylolysis: A Prospective Comparative Study with 2-year Follow-Up

*Ella Virkki; Milja Holstila; Terhi Kolari; Markus Lastikka; Sari Inkeri Malmi; Kimmo Mattila; Olli Tapio Pajulo; Ilkka J. Helenius, MD
Turku University Hospital, Turku, Finland*

3:06 PM–3:14 PM Discussion

143

3:15 PM–3:19 PM

Spondylolysis, Spondylolisthesis, and Associated Variables in Pediatric Patients with Osteogenesis Imperfecta: Follow-up from a 2011 Study

*Garrett Matthew Gloeb, BSChm; Brian P. Hasley, MD; Maegen Wallace, MD; Hannah Darland
University of Nebraska, Omaha, NE, U.S.*

144

3:20 PM–3:24 PM

Is It Necessary to Extend Fusion to L4 when Correcting Pediatric L5/s1 Spondylolisthesis?

Ziming Yao; Xuejun Zhang; Rongxuan Gao; Jiahao Jiao; **Dong Guo**
Beijing Children's Hospital, Capital Medical University, National Center, Beijing, People's Republic of China

145

3:25 PM–3:29 PM

Spinal Fusion for Schuermann Kyphosis Has Higher Complication and Revision Rates than Spinal Fusion for Idiopathic Scoliosis

Katherine Margaret Krenek; Nicole S. Pham; Marleni Albarran; John Vorhies, MD
Stanford University, Palo Alto, CA, U.S.

3:30 PM–3:38 PM

Discussion

SESSION 8B – SPORTS

Room: Cherry Blossom Ballroom

Moderators: Mininder Kocher, MD, MPH and Monika Thüsing, MD

2:00 PM–3:38 PM

2:00 PM–2:02 PM

Welcome & Remarks

146

2:03 PM–2:07 PM

Arthroscopic Bankart Repair for Anterior Glenohumeral Instability in 488 Adolescents between 2000-2020: Risk Factors for Subsequent Revision Stabilization

Jeffrey Kay; Benton E. Heyworth, MD; Donald S. Bae, MD; Mininder S. Kocher, MD, MPH; Matthew D. Milewski, MD; **Dennis Kramer, MD**
Boston Children's Hospital, Boston, MA, U.S.

147

2:08 PM–2:12 PM

Length of Posttreatment Immobilization Following Medial Humeral Epicondyle Avulsion Fracture and Return of Full Range of Motion: An Interim Analysis

Ruth Hendry Jones; Samuel Aaron Beber; Eric W. Edmonds, MD; Benton E. Heyworth, MD; Scott D. McKay, MD; Daryl US Osbahr; Michael Saper; Christopher D. Souder, MD; Matthew D. Ellington, MD; Kevin H. Latz, MD; J. Todd Lawrence, MD, PhD; **Peter D. Fabricant, MD, MPH**; Donna M. Pacicca, MD; MEMO Study Group
Hospital for Special Surgery, New York, NY, U.S.

148

2:13 PM–2:17 PM

Mid-term Results of Treatment of Traumatic Knee Chondral Fractures in Adolescents

Alberto Losa Sánchez; Gonzalo Cogolludo Pimentel; **Joaquín Nuñez De Armas, MD**; Javier Fernandez Jara; Luis Moraleda Novo, MD, PhD
Hospital Universitario La Paz, Madrid, Spain

2:18 PM–2:26 PM

Discussion

149

2:27 PM–2:31 PM

Patellar Lateralization, Absence of Hyperlaxity, and the Mechanism of Injury are Associated with Osteochondral Fracture after First-Time Acute Lateral Patellar Dislocation in Adolescents: An MRI Based Evaluation

Servet Iğrek; **Yavuz Sahbat**; Erdem Koc; Aytek Huseyin Celiksoz; Mert Osman Topkar Kartal Dr. Lütfi Kırdar City Hospital, Istanbul, Turkey

150

2:32 PM–2:36 PM

Number of Patellar Dislocation Events are Associated with Increased Chondral Damage of the Trochlea: Data from the JUPITER Group

Joshua Bram; Emilie Lijesen; Daniel W. Green, MD; Matthew William Veerkamp; Bennett Elihu Propp; Danielle Chipman; Benton E. Heyworth, MD; Jacqueline Munch Brady; Beth Shubin Stein; Shital N. Parikh, MD, FACS; JUPITER Study Group
Hospital for Special Surgery, New York, NY, U.S.

151

2:37 PM–2:41 PM

Dysplasia Worsens Over Time - Trochlear Morphologic Changes in Skeletally Immature Patients Across Consecutive Magnetic Resonance Imaging Studies

Kevin Jossue Orellana; Julianna Lee; Daniel Yang; David Matthew Kell; Jie C. Nguyen; J. Todd Lawrence, MD, PhD; Brendan Williams, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

2:42 PM–2:50 PM

Discussion

152

2:51 PM–2:55 PM

The Incidence and Risk Factors for an Osteochondral Fracture after Patellar Dislocation

Samir Sharrak; Ali Asma; Marcus A. Shelby, MD; Matthew William Veerkamp; Eric J. Wall, MD; Shital N. Parikh, MD, FACS
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.

153

2:56 PM–3:00 PM

Isolated Medial Patellofemoral Ligament Reconstruction With and Without Bony Patellar Fixation In Young Patients - A Multicenter Comparison of Three Operative Techniques

Brendan Williams, MD; David Matthew Kell; Kevin Jossue Orellana; Morgan Batley, BA; Nathan Chaclas; Alexandra Dejneka; Amin Alayleh; Theodore J. Ganley, MD; Neeraj Patel, MD, MPH; J. Todd Lawrence, MD, PhD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

154

3:01 PM–3:05 PM

Higher Rate of Redislocation and Osteoarthritis after Proximal Realignment Procedures vs MPFL Reconstruction: a Comparative Long-Term Study of Patellar Instability in Adolescents with Open Physis with Mean 9 Years of Follow-Up

Maija Jääskelä; Marja Susanna Perhomaa; Lasse Lempainen; Jaakko Sinikumpu
Oulu University Hospital, Oulu, Finland

3:06 PM–3:14 PM

Discussion

155

3:15 PM–3:19 PM

Suture-Based Repair with Debridement and Bone Grafting of Unstable Osteochondritis Dissecans of the Knee

Crystal Perkins, MD; Anthony Egger, MD; Michael T. Busch, MD; Cliff Willimon, MD
Children's Healthcare of Atlanta, Atlanta, GA, U.S.

156
3:20 PM–3:24 PM
Osteochondritis Dissecans of the Femoral Condyle and Coronal Malalignment: An Evaluation of the Demographics, Incidence, and Severity of Disease
Claire Clark; Benjamin Johnson; Charles Wyatt, NP; Bayley Nicole Selee; Philip Wilson, MD; Henry Bone Ellis, MD
Scottish Rite for Children, Frisco, TX, U.S.

157
3:25 PM–3:29 PM
Osteochondral Allograft Transplantation for Capitellar Osteochondritis Dissecans: Excellent Patient Reported Outcomes Scores and High Return to Sports
Cliff Willimon, MD; Michael T. Busch, MD; Anthony Egger, MD; Erin Yuder; Jason Kim; Shivangi Choudhary; Crystal Perkins, MD
Children's Healthcare of Atlanta, Atlanta, GA, U.S.

3:30 PM–3:38 PM Discussion

SESSION 8C – LOWER
EXTREMITY & DEFORMITY

Room: National Harbor 2-3
Moderators: Franck Accadbled, MD, PhD and Samantha Spencer, MD

2:00 PM–3:38 PM

2:00 PM–2:02 PM Welcome & Remarks

158
2:03 PM–2:07 PM
Intraarticular Deformity after Temporary Epiphysiodesis around the Knee
Bjoern Vogt, MD; Jan Disselkamp; Georg Gosheger; Adrien Frommer; Jan Duedal Rölting; Gregor Toporowski; Carina Antfang; Robert Roedel; Andrea Laufer
University Hospital Muenster, Muenster, Germany

159
2:08 PM–2:12 PM
Removal of the Metaphyseal Screw from Tension Band Constructs After Angular Correction with Hemiepiphysiodesis Has High Rates of Physeal Tethering and Subsequent Need for Implant Removal
Timothy Torrez; Senah Stephens; Emily Zhang; Chris Makarewich, MD
University of Utah, Salt Lake City, UT, U.S.

160
2:13 PM–2:17 PM
Accuracy of 4 Different Methods for Estimation of Remaining Growth and Timing of Epiphysiodesis
Anne Berg Breen; Harald Steen; Sanyalak Niratisairak; Are Hugo Pripp; Joachim Horn
Oslo University Hospital, Oslo, Norway

2:18 PM–2:26 PM Discussion

161
2:27 PM–2:31 PM
Does Osteotomy Level Influence Consolidation Time in Tibias Treated for Limb Length Discrepancy?
Sandeep Bains; Jeremy Dubin; Larysa Hlukha; John E. Herzenberg, MD; Philip McClure, MD
International Center for Limb Lengthening, Baltimore, MD, U.S.

162
2:32 PM–2:36 PM
Does Peri-operative Ketorolac Affect Bone Healing in Pediatric Limb Lengthening or Reconstruction Patients?
Christopher A. Iobst, MD; Anirejuoritse Bafor; Danielle Hatfield, NP; Anthony Yassall
Nationwide Children's Hospital, Columbus, OH, U.S.

163
2:37 PM–2:41 PM
Evaluation of Physical and Mental Health in Adults Who Underwent Limb-Lengthening Procedures with Circular External Fixators during Childhood or Adolescence
Alessandro Depaoli; Marina Magnani; Agnese Casamenti; Marco Ramella; Giovanni Gallone; Gino Rocca; Giovanni Trisolino
IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy

2:42 PM–2:50 PM Discussion

164
2:51 PM–2:55 PM
Infection Rates and Risk Factors with Magnetic Intramedullary Lengthening Nails
Jeremy Dubin; Sandeep Bains; Connor James Green, FRCS (ORTH); Larysa Hlukha; John E. Herzenberg, MD; Philip McClure, MD
International Center for Limb Lengthening, Baltimore, MD, U.S.

165
2:56 PM–3:00 PM
Are You Ready to Rumble? Fitbone versus Precise Nail Smackdown for Managing Limb Length Discrepancy
Elizabeth W. Hubbard, MD; Alexander Cherkashin, MD; Mikhail Samchukov, MD; David A. Podeszwa, MD; John G. Birch, MD
Scottish Rite for Children, Dallas, TX, U.S.

166
3:01 PM–3:05 PM
Chronic Knee Pain Following Infrapatellar/Suprapatellar Magnetic Intramedullary Lengthening Nails Versus External Fixators in Limb Length Discrepancy
Larysa Hlukha; Oliver Sax, DO, MS; Kyle Kowalewski; John E. Herzenberg, MD; Michael Assayag; Philip McClure, MD
International Center for Limb Lengthening, Baltimore, MD, U.S.

3:06 PM–3:14 PM Discussion

167
3:15 PM–3:19 PM
3D-Gait Analysis and Patient Reported Outcome Measures before and One Year after Femoral Derotational Osteotomy in Adolescents with Increased Femoral Anteversion
Anders Granseth; Anna Marie Johansson; Terje Terjesen; Joachim Horn
Section for Children's Orthopaedics and Reconstructive Surgery, Division of Orthopaedic Surgery, Oslo, Norway

168
3:20 PM–3:24 PM
Correlation of Preoperative Simultaneous Fibular Pseudarthrosis with Postoperative Ankle Valgus Risk in Congenital Tibia Pseudarthrosis Patients
Ge Yang
Hunan Children's Hospital, Changsha, People's Republic of China

169
3:25 PM–3:29 PM
Will My Child Walk Funny? The Rotational Profile of Infants and Children with Classic Bladder Exstrophy
Maia Regan; Stefano Cardin, MD; Christopher John DeFrancesco, MD; David B. Horn, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

3:30 PM–3:38 PM Discussion

SESSION 8D – DEVELOPMENTAL DYSPLASIA OF THE HIP (DDH)

Room: Woodrow Wilson Ballroom
Moderators: Cristina Alves, MD, MSc, FEBOT and Kishore Mulpuri, MBBS, MHSc, FRCSC
2:00 PM–3:38 PM

2:00 PM–2:02 PM Welcome & Remarks

170
2:03 PM–2:07 PM
Development and Validation of a Diagnostic Aid for DDH
Andreas Roposch, MD, MSc, FRCS; Rachel Buckingham; Claudia Maizen; Pranai Buddhdev, BSc, MBBS, MSc, FRCS; Aresh Hashemi-Nejad
Great Ormond Street Hospital for Children, London, United Kingdom

171
2:08 PM–2:12 PM
Spontaneous Recovery in the Vast Majority of Stable Dysplastic Hips
Wesley Theunissen; Maria Christine Van Der Steen; Arnold T. Besselaar; Floris Van Douveren; Jaap J. Tol
Máxima Medisch Centrum, Veldhoven, Netherlands

172
2:13 PM–2:17 PM
Follow-up after Successful Pavlik Harness Treatment for DDH: is Two Years Enough?
Jessica Poppy Jane Larwood; Edward Lindisfarne, MA, MBBS; Kirsten Elliott; Alexander Aarvold, BSc, MBChB, FRCSEd
University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom

2:18 PM–2:26 PM Discussion

173
2:27 PM–2:31 PM
Comparable Amount of Residual Dysplasia after Active Surveillance versus Abduction Brace Treatment
Wesley Theunissen; Jaap J. Tol; Arnold T. Besselaar; Floris Van Douveren; Maria Christine Van Der Steen
Máxima Medisch Centrum, Veldhoven, Netherlands

174
2:32 PM–2:36 PM
Influence of Standardized Hip Ultrasound Protocol in Pavlik Harness During Management of Developmental Hip Dislocation
Carlos David Pargas Colina; Todd Blumberg, MD; Caleb Allred; Apeksha Gupta
Seattle Children's Hospital, Seattle, WA, U.S.

175
2:37 PM–2:41 PM
Utility of “Pavlik Holiday” for Infantile Hip Dysplasia Following Failure of Pavlik Harness Treatment
Maia Shoham; Hiba Naz; Nicole S. Pham; Stephanie Pun, MD; Kali Tileston, MD; Meghan N. Imrie, MD
Stanford University, Stanford, CA, U.S.

2:42 PM–2:50 PM Discussion

176
2:51 PM–2:55 PM
Predicting the Resolution of Residual Acetabular Dysplasia Following Successful Brace Treatment for Developmental Dysplasia of the Hip in Infants
Ayesha Saeed, MD; Catharine Bradley, BScPT, MSc; Yashvi Verma, MSc, BSc; Simon P. Kelley, MD
The Hospital for Sick Children (SickKids), Toronto, ON, Canada

177
2:56 PM–3:00 PM
Residual Acetabular Dysplasia at Walking Age: A Study of 470 Hips Treated with Pavlik Harness
Luckshman Bavan; Thomas Lloyd; Lucy Llewellyn-Stanton; Max Mifsud; Alpesh Kothari, MA, BM, BCh, AFHEA, MSc, DPhil, FRCS
Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom

178

3:01 PM–3:05 PM

Salter Innominate Osteotomy for the Treatment of Developmental Dysplasia of the Hip in Children. Results of 99 Consecutive Osteotomies after 13 to 34 Years of Follow-up.

*Renee Anne Van Stralen; Ena Colo; Allard Hosman; Wim Willem Schreurs
RadboudUMC, Nijmegen, Netherlands*

3:06 PM–3:14 PM

Discussion

179

3:15 PM–3:19 PM

Outcomes Following Closed Reduction For Developmental Dislocation of the Hip

*Michele Cerasani; Christina Herrero; Ronald McCartney, MD; Aurelio Alberto Muzaurieta; Pablo Castañeda, MD
Hassenfeld Children's Hospital at NYU Langone, New York, NY, U.S.*

180

3:20 PM–3:24 PM

Closed Reduction in Developmental Dysplasia of Hip: Predicting Acetabular Remodelling at Skeletal Maturity

*Evelyn Kuong, MD; Janus Wong; Wang Chow
Hong Kong Children's Hospital, Hong Kong, Hong Kong*

181

3:25 PM–3:29 PM

Acetabular Remodeling in Developmental Dysplasia of the Hip: A Tri-Center Analysis of Open versus Closed Reduction in 459 hips

*William Zachary Morris, MD; Eduardo Novais, MD; Patricia E. Miller, MS; Samantha L. Ferraro, BS; Laura M. Mayfield, MPH; Wudbhav N. Sankar, MD
Boston Children's Hospital, Boston, MA, U.S.*

3:30 PM–3:38 PM

Discussion

SESSION 9A – EARLY ONSET SCOLIOSIS (EOS) & MISCELLANEOUS SPINE

Room: Potomac Ballroom

Moderators: Michelle Caird, MD and Ilkka J. Helenius, MD

4:10 PM–5:48 PM

4:10 PM–4:12 PM

Welcome & Remarks

182

4:13 PM–4:17 PM

Reevaluating the Role of Triradiate Cartilage Status in Shaping Curve Progression among Patients with Juvenile Idiopathic Scoliosis

*Hong Zhang, MD; Chan-Hee Jo, PhD; Daniel J. Sucato, MD, MS
Scottish Rite for Children, Dallas, U.S.*

183

4:18 PM–4:22 PM

Increased Thoracic Sagittal Spine Length Improves Pulmonary Function in Early-Onset Scoliosis

*Matt Holloway; Todd F. Ritzman, MD; Lorena Floccari, MD; Richard Steiner; Jennifer Hurry; Amir Mishrek; Ron El-Hawary, MD, MSc; Pediatric Spine Study Group
Akron Children's Hospital, Akron, OH, U.S.*

184

4:23 PM–4:27 PM

Documenting the Variation of Proximal Foundation Constructs and their Correlation with Unplanned Return to the Operating Room in Children with Magnetically Controlled Growing Rods.

*Bahar Shahidi; Fernando Rios; Hazem Elsebaie; Bailee Monjabez; William Kerr; Joshua Pahys, MD; Steven Hwang, MD; Amer F. Samdani, MD; Lindsay Andras, MD; Matthew E. Oetgen, MD, MBA; Peter O. Newton, MD; Burt Yaszay, MD; Peter F. Sturm, MD; Michael G. Vitale, MD, MPH; Paul D. Sponseller, MD, MBA; Gregory Mundis, MD; Behrooz A. Akbarnia, MD; Pediatric Spine Study Group
Pediatric Spine Foundation, Valley Forge, PA, U.S.*

4:28 PM–4:36 PM Discussion

185

4:37 PM–4:41 PM

More Screws, More OR Time, Same Failure Rates: Enabling Technology Use in Proximal Fixation of Growing Spine Constructs

*Daniel Gabriel; Sydney Lee; Shanika De Silva; Daniel Hedequist, MD; Craig Munro Birch, MD; Brian D. Snyder, MD; Michael T. Hresko, MD; Grant Douglas Hogue, MD
Boston Children's Hospital, Boston, MA, U.S.*

186

4:42 PM–4:46 PM

The Risks and Benefits of Definitive Surgery in the Graduation of I-EOS Patients whose Deformities were Managed with GR. A Comparison with Matched AIS Patients

*Gokay Dursun; Rafik Ramazanov; Halil Gokhan Demirkiran; Mehmet Ayvaz; Muharrem Yazici, MD
Hacettepe University, Ankara, Turkey*

187

4:47 PM–4:51 PM

Lessons Learned from 20 Years of History Using Vertical Expandable Prosthetic Titanium Rib (VEPTR) in Early Onset Scoliosis (EOS) Patients

*Norman Ramirez-Lluch, MD; Alexandra M. Claudio-Marcano; John T. Smith, MD; John B. Emans, MD; Amer F. Samdani, MD; Mark A. Erickson, MD; John "Jack" M. Flynn, MD; Norberto J. Torres-Lugo; Gerardo Olivella; Pediatric Spine Study Group
University of Puerto Rico, San Juan, Puerto Rico*

4:52 PM–5:00 PM Discussion

188

5:01 PM–5:05 PM

Quality of Life Assessment in Early-Onset Scoliosis: A Comparison between the EOSQ-24 and EOSQ-SELF Questionnaires on the Same Patients with Two Different Respondents and Time Points

*Barlas Goker; Gizem Kinikli; Yasemin Yavuz; Rafik Ramazanov; Ataberk Beydemir; Halil Gokhan Demirkiran; Muharrem Yazici, MD
Hacettepe University, Ankara, Turkey*

189

5:06 PM–5:10 PM

Utility of Preoperative Echocardiogram for Large Curve Scoliosis Patients

*Chidebelum Nnake; Matan Malka; Alondra Concepción-González; Emma Berube; Nicole Bainton; Michael G. Vitale, MD, MPH; Benjamin D. Roye, MD; Joshua E. Hyman, MD
Morgan Stanley Children's Hospital at New York-Presbyterian, New York, NY, U.S.*

190

5:11 PM–5:15 PM

Intra-Op CT-based Technology Significantly Increases Radiation Exposure in the Pediatric Population

*Vishal Sarwahi, MBBS, MS; Sayyida Hasan; Keshin Visahan; Aravind Patil; Katherine Eigo; Sarah M. Trent; Alex Kwong Juen Ngan; Yungtai Lo; Terry D. Amaral, MD
Northwell Health, New Hyde Park, NY, U.S.*

5:16 PM–5:24 PM Discussion

191

5:25 PM–5:29 PM

In the Era of Liposomal Bupivacaine: Is Patient-Controlled Analgesia Even Needed?

*Ernest Y. Young, MD, MS; Ernest Dankwah; Ryan C. Goodwin, MD; David P. Gurd, MD; Thomas E. Kuivila, MD
Cleveland Clinic, Cleveland, OH, U.S.*

192
5:30 PM–5:34 PM
Safety Data for Robotics Coupled with Navigation for Pediatric Spine Surgery: Initial Intraoperative Results of a Prospective Multicenter POSNA-Funded Registry
Nicole Welch; Alexa Bosco; Jeffrey Michael Henstenburg; Craig Munro Birch, MD; Grant Douglas Hogue, MD; Michael T. Hresko, MD; Mark A. Erickson, MD; Roger F. Widmann, MD; Jessica H. Heyer, MD; Kirsten Ross, MD; Robert Francis Murphy, MD; Dennis P. Devito, MD; Daniel Hedequist, MD; SPARTAN Boston Children's Hospital, Boston, MA, U.S.

193
5:35 PM–5:39 PM
The Impact of Lumbar Microdiscectomy in Adolescents on PROMIS Pain, Physical Function, and Mental Health Domains
Scott J. Luhmann, MD; Read Abraham Streller Washington University in St. Louis, St. Louis, MO, U.S.

5:40 PM–5:48 PM Discussion

SESSION 9B – ANTERIOR
CRUCIATE LIGAMENT (ACL) &
MISCELLANEOUS SPORTS

Room: National Harbor 2-3
Moderators: Corinna C. Franklin, MD and Marco Turati, MD

4:10 PM–5:48 PM

4:10 PM–4:12 PM Welcome & Remarks

194
4:13 PM–4:17 PM
What are the Morphological Risk Factors for Pediatric Anterior Cruciate Ligament Tears and Tibial Spine Fractures?
Chang-Ho Shin, MD; Akbar Nawaz Syed; Morgan Swanson; Theodore J. Ganley, MD; Tibial Spine Research Interest Group Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

195
4:18 PM–4:22 PM
Dynamic Point of Care Ultrasound is Effective in the Early Diagnosis of Anterior Cruciate Ligament Injuries in Children and Adolescents.
Marcell Benjamin Varga Manninger Jenő Baleseti Központ, Budapest, Hungary

196
4:23 PM–4:27 PM
Low-Rates of Complications Following Quadriceps Tendon Autograft ACL Reconstruction in Adolescents: Strategies for Success in the First 12-Months
Crystal Perkins, MD; Michael T. Busch, MD; Anthony Egger, MD; Jason Kim; Erin Yuder; Shivangi Choudhary; Cliff Willimon, MD Children's Healthcare of Atlanta, Atlanta, GA, U.S.

4:28 PM–4:36 PM Discussion

197
4:37 PM–4:41 PM
Addition of a Lateral Extra-articular Procedure to ACL Reconstruction Does Not Increase Early Complications in Pediatric Patients
Samuel I. Rosenberg; Elizabeth Merritt; Neeraj Patel, MD, MPH Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, U.S.

198
4:42 PM–4:46 PM
Risk Factors Associated with Stiffness Following Pediatric ACL Reconstruction: A Multicenter Study
Jack Beale; Gregory Knell; Robert Yockey; Bobby Van Pelt; Theodore J. Ganley, MD; Daniel W. Green, MD; Michael Saper; Emily Niu, MD; Matthew Robert Schmitz, MD; Philip Wilson, MD; Henry Bone Ellis, MD; SCORE Quality Improvement Registry Scottish Rite for Children, Dallas, TX, U.S.

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4:47 PM–4:51 PM

Septic Arthritis after Anterior Cruciate Ligament Reconstruction in Pediatric & Adolescent vs. Young Adult Patients: The 20-Year Experience at a Regional Referral Center

Deepak Chona; Jeffrey Kay; Ata M. Kiapour, PhD, MMSc; Dennis Kramer, MD; Yi-Meng Yen, MD; Melissa A. Christino, MD; Matthew D. Milewski, MD; Mininder S. Kocher, MD, MPH; Benton E. Heyworth, MD
Boston Children's Hospital, Boston, MA, U.S.

4:52 PM–5:00 PM Discussion

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5:01 PM–5:05 PM

Do Children Differ from Adults in Functional Limb Testing Measured at 9 Months Post ACL Reconstruction?

Sarthak Chopra; Pradyumna Raval; Harbeer Ahedi; Alexander Nicholls, MD
Sydney Orthopaedic Research Institute, Sydney, Australia

201

5:06 PM–5:10 PM

Features of Discoid Lateral Meniscus in Pediatric Patients with Achondroplasia

Jennifer Sheasley; Maya Gopalan; Emily Niu, MD; Apeksha Gupta; Zachary Stinson, MD; Marie-Lyne Nault, MD, PHD; Sasha Carsen, MD, FRCSC; Craig Finlayson, MD; R. Jay Lee, MD; Brian Michael Haus, MD; Daniel W. Green, MD; John A. Schlechter, DO; Benton E. Heyworth, MD; Jennifer J. Beck, MD; Jie C. Nguyen; Gregory A. Schmale, MD; PRISM Meniscus Research Interest Group
Seattle Children's Hospital, Seattle, WA, U.S.

202

5:11 PM–5:15 PM

MRI-Guided Retrograde Joint-Sparing Drilling of Osteochondritis Dissecans of the Talus in Children

Jyri Järvinen; Mika Hirvonen; Jaakko Sinikumpu; Roberto Blanco Sequeiros
Oulu University Hospital, Oulu, Finland

5:16 PM–5:24 PM Discussion

203

5:25 PM–5:29 PM

Is it Worth a Shot?: Efficacy of a Multimodal Pain Program for Pediatric and Adolescent Knee Procedures with and without a Single-shot Peripheral Nerve Block

Philip Wilson, MD; James Joseph McGinley; Bobby Van Pelt; Claire Clark; Benjamin Johnson; Charles Wyatt, NP; Henry Bone Ellis, MD
Scottish Rite for Children, Frisco, TX, U.S.

204

5:30 PM–5:34 PM

To Block or Not to Block? Results from the Society of Pediatric Anesthesia Improvement Network

Matthew D. Ellington, MD; Steven Staffa; Allison Fernandez; Society Pediatric Anesthesia Interest Network (SPAIN)
Dell Medical School at the University of Texas at Austin, Austin, TX, U.S.

205

5:35 PM–5:39 PM

Single-shot Peripheral Nerve Blocks with Precedex Increase Neurotoxic Complications in Pediatric and Adolescent Arthroscopic Knee Procedures ♦

Philip Wilson, MD; James Joseph McGinley; Bobby Van Pelt; Claire Clark; Benjamin Johnson; Charles Wyatt, NP; Henry Bone Ellis, MD
Scottish Rite for Children, Frisco, TX, U.S.

5:40 PM–5:48 PM Discussion

♦ Indicates a presentation in which the FDA has not cleared the drug and/or medical device for the use described (i.e., the drug or medical device is being discussed for an “off label” use)."

SESSION 9C – TRAUMA

Room: Cherry Blossom Ballroom

Moderators: Matthew Oetgen, MD, MBA and
Annelie–Martina Weinberg, MD, PhD

4:10 PM–5:48 PM

4:10 PM–4:12 PM Welcome & Remarks

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4:13 PM–4:17 PM

Subaxial Cervical Spine Injury Classification
System (SLIC) Score is Useful in Guiding
Treatment Decisions in Pediatric Cervical
Spine Trauma

Tyler Metcalf; Ambika Paulson; Kelly Vittetoe;
Katherine Sborov; Teresa Benvenuti; Michael
Benvenuti, MD; Kirsten Ross, MD; Jeffrey E.
Martus, MD; Gregory A. Mencio, MD; Jonathan
G. Schoenecker, MD, PhD; Stephanie N. Moore-
Lotridge, PhD; Craig R. Louer, MD; Vanderbilt
Spine Trauma Consortium
Vanderbilt University Medical Center, Nashville,
TN, U.S.

207

4:18 PM–4:22 PM

Ring the Alarm: Pediatric Patients with
Operative Pelvic Ring Injuries have similar
Mortality and Morbidity to Adults in a
National Matched Cohort Study

Amy Steele; David Liu; David Momtaz;
Alexander Farid; Jason Young; Leslie C. Yuen;
Grant Douglas Hogue, MD
Boston Children’s Hospital, Boston, MA, U.S.

208

4:23 PM–4:27 PM

Etiology and Mortality of Acute Pediatric
Compartment Syndrome: A Retrospective
Review

Olivia Barron; Tristen Taylor; Michael Allison;
Madison Harris; Lauren Pupa; Dorothy Harris
Beauvais, MD
Baylor College of Medicine, Houston, TX, U.S.

4:28 PM–4:36 PM Discussion

209

4:37 PM–4:41 PM

The Experience of Adolescent Females
Following Completely Displaced Midshaft
Clavicle Fractures: Sex-Specific Differences
in Pain, Sensory Symptoms, and Activities of
Daily Life Following Surgical Treatment

Coleen S. Sabatini, MD, MPH; Crystal Perkins,
MD; Michael Quinn; Rachel Limon Montoya;
Eric W. Edmonds, MD; Henry Bone Ellis, MD;
Andrew Pennock, MD; Cliff Willimon, MD;
Philip Wilson, MD; Donald S. Bae, MD; Michael
T. Busch, MD; Mininder S. Kocher, MD, MPH;
Ying Li, MD; Jeffrey Jerome Nepple, MD; Nirav
Kiritkumar Pandya, MD; David D. Spence, MD;
Benton E. Heyworth, MD; FACTS
Boston Children’s Hospital, Boston, MA, U.S.

210

4:42 PM–4:46 PM

Presence of Dorsal Spike Fragment in
Conjunction with Pediatric Volar Barton
Fracture Conveys High Risk of Delayed
Extensor Tendon Injury

Ahmad F. Bayomy, MD; Charles T. Mehlman,
DO, MPH
Cincinnati Children’s Hospital Medical Center,
Cincinnati, OH, U.S.

211

4:47 PM–4:51 PM

Physeal Fractures of the Distal Ulna:
Incidence and Risk Factors for Premature
Growth Arrest

Pille-Riin Värk; Julianna Lee; Shaun
Mendenhall; Benjamin Chang; Eliza Buttrick,
BA; Apurva S. Shah, MD, MBA
Children’s Hospital of Philadelphia,
Philadelphia, PA, U.S.

4:52 PM–5:00 PM Discussion

212
5:01 PM–5:05 PM
“Don’t Fear the Reamer”: 20-Year Trends of Pediatric Femoral Fracture Fixation Show Increased Utilization of Rigid Nails in ABOS Part II Candidates
Kevin Jeffrey Serdahely; Tia Shutes; Craig R. Louer, MD; Nathaniel Lempert, MD; Jonathan G. Schoenecker, MD, PhD; Jeffrey E. Martus, MD; David Ebenezer, MD; Gregory A. Mencio, MD
Vanderbilt University, Nashville, TN, U.S.

213
5:06 PM–5:10 PM
How Fast and How Far? Prospective Study on Femoral Overgrowth in Diaphyseal Femur Fractures
Julia Skye Sanders, MD; Tiffany Phan; Sarah Rose Purtell, BS; Michael J. Heffernan, MD; Tyler A. Tetreault, MD; Jonas Owen, MD; Lindsay Andras, MD
Children’s Hospital Los Angeles, Los Angeles, CA, U.S.

214
5:11 PM–5:15 PM
Factors Associated with Premature Physeal Closure after Distal Femur Fracture
Andrew Pennock, MD; Liane Chun, MD; Christopher D. Souder, MD; Tracey P. Bastrom, MA
Rady Children’s Hospital, San Diego, San Diego, CA, U.S.

5:16 PM–5:24 PM Discussion

215
5:25 PM–5:29 PM
Do Patient-Answered Versus Parent-Answered Patient Reported Outcomes Differ in Pediatric Fracture Care?
Tyler McDonald, MD; Cade Smelley
University of South Alabama, Mobile, AL, U.S.

216
5:30 PM–5:34 PM
Validation of the Patient/Parent Reported Outcome Measure of Fracture Healing (PROOF-LE) Questionnaire for Lower Extremity Fractures in Children
Unni G. Narayanan, MD, FRCSC; Sydney Leigh Sharp; Sarah Yang; Stanley Richard Moll; Anne Murphy; Jacqueline Chan; Mark Wickus Camp, MD
The Hospital for Sick Children (SickKids), Toronto, ON, Canada

217
5:35 PM–5:39 PM
Home Management of Pediatric Buckle Fractures: Can Video Education Replace an In-Person Visit?
Mosufa Zainab; Mehmet Esat Kilinc; Evan Sandefur; Andrea Yu-Shan; Nicholas Peterman; Peter J. Apel, MD
Virginia Tech Carilion, Roanoke, U.S.

5:40 PM–5:48 PM Discussion

SESSION 9D – HIP

Room: Woodrow Wilson Ballroom
Moderators: Mihir Thacker, MD and Thomas Wirth, MD, PhD

4:10 PM–5:48 PM

4:10 PM–4:12 PM Welcome & Remarks

218
4:13 PM–4:17 PM
I Thought Things were too Loose? Prevalence and Risk factors for Stiffness following Open Reduction for Developmental Dysplasia of the Hip
Vineet Desai; Carter Hall; Stefano Cardin, MD; Wudbhav N. Sankar, MD
Children’s Hospital of Philadelphia, Philadelphia, PA, U.S.

219

4:18 PM–4:22 PM

Open Reduction of Hip Dislocations in Arthrogyrosis is Associated with Higher Rates of AVN than Idiopathic DDH: A Dual-Center Study

Tristen Taylor; Rishi Sinha; Callie Bridges; Basel Touban, MD; Nihar Pathare; Caitlin Perez-Stable; Laura M. Mayfield, MPH; Jaclyn Hill, MD; Scott B. Rosenfeld, MD; William Zachary Morris, MD
Texas Children's Hospital, Houston, TX, U.S.

220

4:23 PM–4:27 PM

Long-term Results of Femoral Varus Derotation Osteotomy in the Dysplastic Hip

Luca Basiglini; Marco Giordano; Martina Marsiolo; Giuseppe Mastantuoni; Valeria Calogero; Francesco Falciglia
Bambino Gesù of Rome, Rome, Italy

4:28 PM–4:36 PM Discussion

221

4:37 PM–4:41 PM

The Effect of Femoral Deformity on Hip Contact Mechanics in Patients with Hip Dysplasia: A Finite Element Analysis Study

Christian Klemt; Stephanie Kha; Jayme Koltsov; Hiba Naz; Stephanie Pun, MD
Stanford University, Stanford, U.S.

222

4:42 PM–4:46 PM

Prevalence and Radiographic Measurements of Acetabular Dysplasia in Over 4000 Healthy Dutch Adolescents

Suzanne De Vos-Jakobs; Fleur Boel; Delong Chen; Johanna Cornelia Maria Van Haasteren; Rintje Agricola
Erasmus MC - Sophia Children's Hospital, Rotterdam, Netherlands

223

4:47 PM–4:51 PM

A Biomechanical Analysis of the Surface Contact Pressure After an Innominate Osteotomy for the Correction of Acetabular Dysplasia

Mackenzie A. Roof; Gerardo Enrique Sanchez-Navarro; Emmanuel Gibon, MD; Pablo Castañeda, MD
Hassenfeld Children's Hospital at NYU Langone, New York, NY, U.S.

4:52 PM–5:00 PM Discussion

224

5:01 PM–5:05 PM

Does Femoral Version Impact the Patient-Reported Outcomes and Clinical Meaningful Improvement after Periacetabular Osteotomy for the Treatment of Acetabular Dysplasia?

Emmanouil (Manos) Grigoriou, MD; Till Lerch; Ani Maroyan; Michael B. Millis, MD; Young Jo Kim, MD; Miles Batty; Shanika De Silva; Eduardo Novais, MD
Boston Children's Hospital, Boston, MA, U.S.

225

5:06 PM–5:10 PM

Differences in Femoroacetabular Impingement Morphology on CT between Adolescent Males and Females with Symptomatic FAI

Jeffrey Jerome Nepple, MD; Kyle P. O'Connor; Robert Westermann; Andrea Spiker; Aaron Krych; Yi-Meng Yen, MD; Christopher Larson; Stephanie Watson Mayer, MD; Matthew Robert Schmitz, MD; Etienne L. Belzile; Cecilia Pascual-Garrido; Sasha Carsen, MD, FRCSC; Henry Bone Ellis, MD; Young Jo Kim, MD; John Clohisey, MD; ANCHOR Study Group
Washington University in St. Louis, St. Louis, MO, U.S.

226
5:11 PM–5:15 PM
A Detailed 3D Analysis of Hip Center of Rotation Trajectory and its Effects on Impingement-Free Range of Motion: A 3D Dynamic Analysis of 1,222 Hips
Ata M. Kiapour, PhD, MMSc; Mohammadreza Movahhedi; Mallika Singh; Young Jo Kim, MD; Eduardo Novais, MD
Boston Children's Hospital, Boston, MA, U.S.

5:16 PM–5:24 PM Discussion

227
5:25 PM–5:29 PM
Patient Reported Outcomes of Femoroacetabular Impingement in Adolescents with Open Physes and Duration of Symptoms: A Match-Paired Analysis
Benjamin Domb; Tyler Robert McCarroll; Andrew Schab; Roger Quesada-Jimenez; Ady Haim Kahana-Rojkind
American Hip Institute Research Foundation, Des Plaines, IL, U.S.

228
5:30 PM–5:34 PM
Expectations Before Periacetabular Osteotomy and Relation to Post-Operative Outcomes and Satisfaction
Samantha L. Ferraro, BS; Patricia E. Miller, MS; Young Jo Kim, MD; Michael B. Millis, MD
Boston Children's Hospital, Boston, MA, U.S.

229
5:35 PM–5:39 PM
Intraoperative Neuromonitoring During Periacetabular Osteotomy Provides Actionable Alerts – Why Is It Not More Widely Used?
Lukas G. Keil, MD; James David Bomar, MPH; V. Salil Upasani, MD
Rady Children's Hosital, San Diego, San Diego, CA, U.S.

5:40 PM–5:48 PM Discussion

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10th St. & Constitution Ave. NW • Washington, DC 20560



FRIDAY, MAY 10, 2024

7:30 PM	Doors Open
7:30 PM–8:00 PM	Cocktails
8:00 PM–11:00 PM	Dinner and DJ

TICKET PRICES:

10 and Under:	Free
11 to 15 Years Old	\$62.50
16 Years and Older	\$125

Ticket price includes dinner, drinks, entertainment, transportation, and exclusive museum access to the Rotunda, Mammal, Fossil, Ocean, and Gem Halls.

Casual attire

SESSION 10 – PERTHES & MISCELLANEOUS

Room: Potomac Ballroom

Moderators: *Stefan Huhnstock, MD and Harry K.W. Kim, MD*

8:00 AM–9:18 AM

8:00 AM–8:05 AM Welcome & Remarks

230

8:06 AM–8:10 AM

MRI Perfusion Correlates with Duration of Stages and Lateral Pillar class in Legg-Calvé-Perthes Disease

Wudbhav N. Sankar, MD; Julianna Lee; David Y. Chong, MD; Yasmin D. Hailer; Luiz Renato Agrizzi De Angeli; Scott Yang, MD; Jennifer C. Laine, MD; Harry K.W. Kim, MD; International Perthes Study Group Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

231

8:11 AM–8:15 AM

Early-Stage Femoral Head Hypoperfusion Correlates with Femoral Head Deformity at Intermediate-Term Follow-Up in Patients with Legg-Calvé-Perthes Disease

Michael Seungcheol Kang; David Zimmerhanzel; Shamrez Haider; Harry K.W. Kim, MD Scottish Rite for Children, Dallas, TX, U.S.

232

8:16 AM–8:20 AM

Legg-Calve-Perthes Disease: To Operate or Not to Operate!

Joeffroy Otayek; Ayman Assi; Andrea Achkouty; Jerome Sales De Gauzy; Christophe Glorion; Ismat Ghanem, MD; SOFOP Saint-Joseph University of Beirut, Beirut, Lebanon

8:21 AM–8:29 AM Discussion

233

8:30 AM–8:34 AM

Correlation between Radiological Parameters and PROMs Results in 141 Adults who Suffered a Perthes Disease in Childhood: Should we Modify our Approach in the Phase of Sequelae?

Alberto Losa Sánchez; Luis Moraleda Novo, MD, PHD; Joaquín Nuñez De Armas, MD; Ricardo Fernandez Fernandez; Gaspar Gonzalez Moran Hospital Universitario La Paz, Madrid, Spain

234

8:35 AM–8:39 AM

Predictors of Persistent Limp Following Proximal Femoral Varus Osteotomy for Perthes Disease

Kevin Jossue Orellana; Joshua Bram; Morgan Batley, BA; Susan A. Novotny, PhD; Hitesh Shah, MD; Derek M. Kelly, MD, FAAOS, FAOA; Benjamin D. Martin, MD; Tim Schrader, MD; Jennifer C. Laine, MD; Harry K.W. Kim, MD; Wudbhav N. Sankar, MD; International Perthes Study Group Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

235

8:40 AM–8:44 AM

Comparison of Mid-to Long-Term Outcomes of Conservative Treatment versus Shelf Acetabuloplasty in Perthes Disease

Mehmet Demirel; Ilhan Sulejmani; Yasar Samet Gökçeoglu; Yavuz Saglam; Fuat Bilgili, MD Istanbul University, Istanbul, Turkey

8:45 AM–8:53 AM Discussion

236

8:54 AM–8:59 AM

Improved Gait and Patient-Reported Outcomes Following Hip Preservation Procedures via Surgical Hip Dislocation in Adolescents with Residual Legg-Calve-Perthes Disease

Kanav Chhabra; Nicholas Anable; Arnav Kak; Chan-Hee Jo, PhD; John Anthony "Tony" Herring, MD, FRCS; Daniel J. Sucato, MD, MS; Harry K.W. Kim, MD
Scottish Rite for Children, Dallas, TX, U.S.

237

9:00 AM–9:04 AM

Development of a Minimally Invasive Piglet Model of Legg-Calve-Perthes Disease

Susan A. Novotny, PhD; Reza Talaie; Erick Buko; Ashton Adele Amann; Alexandra Armstrong; Casey P. Johnson; Ferenc Toth; Jennifer C. Laine, MD
Gillette Children's, St. Paul, MN, U.S.

238

9:05 AM–9:09 AM

Two Novel Tissue Types Identified in 3D Morphometric Analyses of Perthes Hips: Is this the Key to Early Prognostic Modelling

Hannah Kane; Siobhan Hoare; Thomas Brendan Murphy; Niamh Nowlan; Connor James Green, FRCS (ORTH)
University College Dublin, Dublin, Ireland

9:10 AM–9:18 AM Discussion

9:19 AM–9:24 AM

Award Announcements

Room: Potomac Ballroom

David Farrington, MD and Anthony Riccio, MD

9:25 AM–9:35 AM

EPOS Presidential Transfer

Room: Potomac Ballroom

9:36 AM–9:46 AM

POSNA Presidential Transfer

Room: Potomac Ballroom

SESSION 11 – TRAUMA

Room: Potomac Ballroom

Moderators: Federico Canavese, MD, PhD and Kenneth Noonan, MD, MHCDS

10:15 AM–12:00 PM

239

10:15 AM–10:19 AM

Vitamin D—A Risk Factor for Bone Fractures in Children: A Population-Based Prospective Case–Control Randomized Cross-Sectional Study

Alexandru-Dan Herdea; Alexandru Ulici
University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

240

10:20 AM–10:24 AM

Time to Closed Reduction in the ED: Who is at Risk for Delays and Does it Matter?

Ryan Sadjadi; Avionna Baldwin; Daniel Soroudi; Ishaan Swarup, MD
UCSF Benioff Children's Hospital, Oakland, CA, U.S.

241

10:25 AM–10:29 AM

Nonoperative vs. Operative Management of Type I Pediatric Open Fractures

Jeremy Dubin; Sandeep Bains; Daniel Hameed; Mallory C. Moore; John E. Herzenberg, MD; Philip McClure, MD
International Center for Limb Lengthening, Baltimore, MD, U.S.

10:30 AM–10:38 AM Discussion

242

10:39 AM–10:43 AM

Gartland Type IIB Supracondylar Fractures can be Treated using Blount's Method

Kätlin Puksand; Petra Grahn, MD; Matti Mikael Ahonen; Juho-Antti Ahola; Topi Aaretti Laaksonen, MD
Helsinki University Hospital, Helsinki, Finland

243

10:44 AM–10:48 AM

Does Time to Surgery Impact Nerve Recovery in Supracondylar Humerus Fractures with Nerve Injury?

Brian Wahlig; Mikaela Sullivan; Samuel Broida; A. Noelle Larson, MD; William J. Shaughnessy, MD; Anthony A. Stans, MD; Emmanouil (Manos) Grigoriou, MD; Todd A. Milbrandt, MD Mayo Clinic, Rochester, MN, U.S.

244

10:49 AM–10:53 AM

Epidemiology of Operatively Treated Pediatric Medial Epicondyle Fractures

Akbar Nawaz Syed; Joseph Yellin, MD; Divya Talwar; Margaret Bowen; Leta Ashebo; Scott D. McKay, MD; Peter D. Fabricant, MD, MPH; Eric W. Edmonds, MD; Benton E. Heyworth, MD; Michael Saper; Donna M. Pacicca, MD; Kevin H. Latz, MD; Stephanie Watson Mayer, MD; Daryl US Osbahr; Christopher D. Souder, MD; J. Todd Lawrence, MD, PhD; Medial Epicondyle Multicenter Outcomes Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

10:54 AM–11:02 AM Discussion

245

11:03 AM–11:07 AM

Enhancing Tibial Spine Fracture Repair: Suture Plus Diaphyseal Suture Anchors Biomechanically Outperform Sutures and Screws in Pediatric Cadaveric Knees

Thomas M. Johnstone; Ian Hollyer; Kelly Heavner McFarlane; Amin Alayleh; Calvin Chan; Seth Sherman; Kevin G. Shea, MD Stanford University, Stanford, CA, U.S.

246

11:08 AM–11:12 AM

Risk Factors for Combined Tibial Tubercle Avulsion Fracture and Patellar Tendon Tears

Rebecca Schultz; Basel Touban, MD; Jason Amaral; Raymond Kitziger; Tiffany Lee; Matthew Parham; Scott D. McKay, MD Texas Children's Hospital, Houston, TX, U.S.

247

11:13 AM–11:17 AM

Risk Factors for the Development of Premature Physeal Closure after a McFarland Fracture in Children

Yuancheng Pan; Federico Canavese, MD; Shunyou Chen Fuzhou Second Hospital, Fuzhou, People's Republic of China

11:18 AM–11:26 AM Discussion

248

11:27 AM–11:31 AM

Prospective Distal Tibial Physeal Fractures: Short Leg vs. Long Leg Casting

Brock Todd Kitchen; Eric W. Edmonds, MD; V. Salil Upasani, MD; Christopher D. Souder, MD; James David Bomar, MPH; Macy Dexter; Andrew Pennock, MD Rady Children's Hosital, San Diego, San Diego, CA, U.S.

249

11:32 AM–11:36 AM

Remodeling Potential after Distal Tibial Physeal Fractures

Christopher D. Souder, MD; James David Bomar, MPH; Christine Ho, MD; Brian P. Scannell, MD Rady Children's Hosital, San Diego, San Diego, CA, U.S.

250

11:37 AM–11:41 AM

Identification of & Response to Growth Arrest Following Pediatric Ankle Fractures

Charles T. Mehlman, DO, MPH; Jaime Rice Denning, MD, MS; Shital N. Parikh, MD, FACS; Junichi Tamai, MD; Dayna Phillips, MD Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.

11:42 AM–11:50 AM Discussion

11:51 AM–12:00 PM Closing Remarks

BASIC SCIENCE

ePoster 1

Alterations in the Bone Collagen Organization in Osteogenesis Imperfecta
Wouter H. Nijhuis; Zhiming Wu; Stefan Smit; Kelly Warmink; Harrie Weinans; Ruud Bank; Ralph J.B. Sackers, MD, PhD
 University Medical Center Utrecht, Utrecht, Netherlands

ePoster 2

Changes Around Knee After Apophysiodesis of Tibial Apophysis in Rats (Preliminary Results)
Emre Cullu; Figen Sevil Kilimci; Mehmet Erkut Kara; Firuze Türker Yavas
 Adnan Menderes University, Aydın, Turkey

ePoster 3

Circ_0000888 Regulates Osteogenic Differentiation of Periosteal Mesenchymal Stem Cells in Congenital Pseudarthrosis of the Tibia
Ge Yang
 Hunan Children's Hospital, Changsha, People's Republic of China

ePoster 4

Guided Growth for Trochlear Dysplasia – Development of a Rabbit Model
Marcus A. Shelby, MD; Carolyn Doerning; John Miras Racadio; Matthew William Veerkamp; Savannah Walters; Ross Schierling; Angie Cummins; Shital N. Parikh, MD, FACS
 Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.

ePoster 5

Hip Dysplasia in Mucopolysaccharidosis Type 1 Hurler: midterm Radiological and Functional Outcomes after Hematopoietic Stem Cell-Gene Therapy
Maurizio De Pellegrin; Chiara Filisetti; Matilde Cossutta; Barbara Guerrini; Renata Mellone; Giulia Consiglieri; Francesca Tucci; Marina Sarzana; Alessandro Aiuti; Maria Ester Bernardo; SR-Tiget MPSIH
 San Raffaele Telethon Institute for Gene Therapy (SR-TIGET), Milan, Italy

ePoster 6

Quantitative MRI May Help Detect Bone Repair in a Piglet Model of Legg-Calvé-Perthes Disease
 Ashton Adele Amann; Erick Buko; Alexandra Armstrong; **Jennifer C. Laine, MD**; Susan A. Novotny, PhD; Reza Talaie; Ferenc Toth; Casey P. Johnson
 Gillette Children's, St. Paul, MN, U.S.

ePoster 7

Sulfur Biology May Be Key to the Aetiology of Developmental Dysplasia of the Hip
 Amanda ML Rhodes; Sehrish Ali; Magdalena Minnion; Ling Hong Lee, MD; Brijil Maria Joseph; Judwin Alieh Ndzo; Nicholas M.P. Clarke, ChM FRCS; Martin Feelisch; **Alexander Aarvold, BSc, MBChB, FRCSEd**
 University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom

CONGENITAL, SYNDROMIC, AND SKELETAL DYSPLASIAS

ePoster 8

Characterization of Bone Growth Patterns Across the Lifespan of Individuals with Osteogenesis Imperfecta
 Matthew Bernhard; Chloe Derocher; Erin Carter; Karl John Jepsen; **Cathleen L. Raggio, MD**
 Hospital for Special Surgery, New York, NY, U.S.

ePoster 9

Therapeutic Effect of Intramedullary Reaming and Nailing for Long Bones Lengthening in Children with Ollier Disease and Maffucci Syndrome on Enchondromas: Retrospective Serie
Samuel Georges; Bonneau Soline; Bernard Fraisse; Bremond Nicolas; Yan Lefèvre; Philippe Violas; Zagorka Pejin, MD
 Necker University Hospital, APHP, Paris, France

ePoster 10

To Stand or Not to Stand: a Retrospective Review of Clinical and Health-Related Quality of Life Outcomes Related to Supported Standing in Patients with MMFC1 Spina Bifida

Peter C. Shen; Jill E. Larson, MD

Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, U.S.

FOOT & ANKLE

ePoster 11

Does Clubfoot Affect Sports Performance?

Michelle Mo, MD, PhD; Megan M. Hannon, MD; William Meehan; Patricia E. Miller, MS; Matthew Lincoln Rauseo; Shawn Patrick Cameron; Maya Fajardo; Susan T. Mahan, MD, MPH

Boston Children's Hospital, Boston, MA, U.S.

ePoster 12

Pedobarography and Ankle-Foot Kinematics in Children with Symptomatic Flexible Flatfoot after Medializing Calcaneal Osteotomy: A Cross-Sectional Study

Noppachart Limpaphayom, MD

Chulalongkorn University, Bangkok, Thailand

ePoster 13

Sports Participation Reported in Children and Adolescents after Treatment for Idiopathic Clubfoot Using Ponseti Method

James Weihe, MD; Abigail Padilla; Divya Jain; Shannon Margherio; Melissa Bent, MD;

Natalie C. Stork, MD

Children's Hospital Los Angeles, Los Angeles, CA, U.S.

ePoster 14

Surgical Considerations for Children with Foot Syndactyly

Eliza Buttrick; Sulagna Sarkar; Amanda Pang; Austin James Reiner; Christina Michelle Sacca; Christine Goodbody; David B. Horn, MD; Shaun Mendenhall; Apurva S. Shah, MD, MBA

Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

HAND/UPPER EXTREMITY

ePoster 15

Clinical Presentation and Patient-Reported Function in Children with Sprengel's Deformity

Julianna Lee; Eliza Buttrick, BA; Carley Vuillermin, FRACS, MBBS, MPH; Lindley B. Wall, MD; Julie Samora, MD, PhD;

Apurva S. Shah, MD, MBA; CoULD Study Group

Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

ePoster 16

Lengthening Over the Plate in Forearm Deformity - A Novel Technique to Reduce the Duration Of External Fixation And Related Complications

Kyeong-Hyeon Park

Severance Children's Hospital, Seoul, Republic of Korea

ePoster 17

Pediatric Radial Head Ossification Patterns

Tiffany Liu; Hannah May Reen Chi; Arin Kim; Bamidele KAMMEN; Ishaan Swarup, MD UCSF Benioff Children's Hospital, Oakland, CA, U.S.

ePoster 18

Reachable Workspace by Injury Level in Brachial Plexus Birth Injury

Stephanie Russo, MD, PhD; Tyler Richardson; Emily Nice; Spencer Warshauer; Dan Ariel Zlotolow, MD; Scott H. Kozin, MD

Shriners Children's™ Philadelphia, Philadelphia, PA, U.S.

ePoster 19

Recreational-Therapeutic Workshops for the Use of Myoelectric Protheses in Upper Limb Agenesis

*Sergio Martinez Alvarez; Álvaro Pérez-Somarriba; Paula Serrano Gonzalez; María Galán Olleros; Íñigo Monzón Tobalina; Isabel Vara Patudo, MD; Maria Teresa Vara; Angel Palazon Quevedo
Hospital Infantil Universitario Niño Jesús, Madrid, Spain*

ePoster 20

Throwing Pains: Clinical Presentation and Surgical Outcomes of Cubital Tunnel Syndrome in Children and Adolescents

*Nathan Chaclas; Scott J. Mahon; Joseph Yellin, MD; Christine Goodbody; Apurva S. Shah, MD, MBA
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.*

HIP

ePoster 21

A Hybrid Virtual Baby Hip Clinic Improves Care for the Nonoperative Treatment of Developmental Dysplasia of the Hip (DDH)

*Yashvi Verma, MSc, BSc; Kylie Maxwell; Catharine Bradley, BScPT, MSc; Simon P. Kelley, MD
The Hospital for Sick Children (SickKids), Toronto, ON, Canada*

ePoster 22

A Novel Low-Cost Acoustic Screening Method for Early Detection of Developmental Dysplasia of the Hip in Infants

*Yealeen Jeong; Taylor A. Jazrawi; Hansen A. Mansy; Richard H. Sandler; Charles T. Price, MD; Pablo Castañeda, MD
Hassenfeld Children's Hospital at NYU Langone, New York, NY, U.S.*

ePoster 23

Acetabular Changes in 80 Surgically Treated Perthes Patients, From Diagnosis to Healing

*Yasmin D. Hailer; Wiktor Mizgalewicz; Hitesh Shah, MD
Kasturba Hospital, Manipal, India*

ePoster 24 ★

Acetabular Teardrop Ratio, A Novel Radiographic Measurement in Developmental Dysplasia of the Hip

*Joanne Abby Marasigan, MD; Munish Krishnan; Kurt Seagrave; David Graham Little, MBBS
Children's Hospital at Westmead, Westmead, Australia*

ePoster 25

Anteroinferior Iliac Spine (AIIS) Osteoplasty at the Time of Periacetabular Osteotomy (PAO) Helps Preserve Preoperative Range of Motion

*Wasim Shihab; Connor Luck; Jonathan Dalton; Ashley Disantis; Jennifer Oakley; Michael McClincy, MD
UPMC Children Hospital, Pittsburgh, PA, U.S.*

ePoster 26

Birthweight Correlates to Pubo-Femoral Distances and Alpha Angles in Hip Ultrasound of Newborns at Six Weeks of Age

*Maria Tirta; Ole Rahbek, MD, PhD; Michel Bach Hellfritzsch; Rikke Damkjær Maimburg; Mads Henriksen; Søren Kold; Natalia Lapitskaya; Bjarne Moeller-Madsen, MD, PhD; Hans-Christen Husum
Aalborg University Hospital, Aalborg, Denmark*

ePoster 27

Combined Guided Growth and Growth Tethering Versus Varus Osteotomy for Caput Valgum and Leg Length Discrepancy Following Surgery in Developmental Dysplasia of the Hip: Outcome of the Hip Development

*Kuan-wen Wu, MD; Chia-Che Lee; Ting-ming Wang, MD; Ken N. Kuo, MD
National Taiwan University Hospital, Taipei, Taiwan*

ePoster 28

Developmental Hip Dysplasia: What Happens After Pavlik?

Cristina Alves, MD; Carla Sofia Da Silva Carreço; Ines Balaco; Marcos Carvalho; Joao Cabral; Olíana Madeira Tarquini; Pedro Sa Cardoso; Tah Pu Ling
Hospital Pediátrico - CHUC, EPE,
Coimbra, Portugal

ePoster 29

Femoral Anteversion Assessment: 3D Modelization Insight

Mohamed Laroussi Toumia; Alina Badina; Nejib Khouri; Axel Koussou; Eric Desailly
Necker University Hospital, APHP, Paris, France

ePoster 30

How Long is a Piece of String? - Duration of Pavlik Harness Treatment for Developmental Dysplasia of the Hip

Bhushan Sharad Sagade, Junior Consultant; Kakra Wartemberg; Julia Judd, NP; Safwan Abdulwahid; Edward Lindisfarne, MA, MBBS; Kirsten Elliott; Alexander Aarvold, BSc, MBChB, FRCSEd
University Hospital Southampton NHS Foundation Trust, Southampton,
United Kingdom

ePoster 31

Impact of Pavlik Harness Treatment on Motor Skills Acquisition: a Prospective Study

Ana Rita Jesus; Catarina Silva; Inês Luz; José Eduardo Mendes; Ines Balaco; Cristina Alves, MD
Hospital Pediátrico - CHUC, EPE, Coimbra, Portugal

ePoster 32

Mid-term Results of Sub-Trochanteric Valgus Osteotomy for Symptomatic Late Stages Legg-Calvé-Perthes Disease

Khaled M. Emara, MD; Ramy Diab; Mohamed Osama Eissa
Ain Shams University, Cairo, Egypt

ePoster 33

Natural Evolution of Legg-Calvé-Perthes Disease in Children "Surgical Hips" Treated with a Non-Operative Approach

Joeffroy Otayek; Ayman Assi; Andrea Achkouty; Jerome Sales De Gauzy; Christophe Glorion; Ismat Ghanem, MD
Saint-Joseph University of Beirut, Beirut, Lebanon

ePoster 34

One-third of Patients with Slipped Capital Femoral Epiphysis have Abnormal Thyroid Screening Studies

Ena Nielsen; Braeden Makato Leiby; Todd Blumberg, MD
Seattle Children's Hospital, Seattle, WA, U.S.

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Optimizing the Arthrogram: Does Local Anesthetic Improve the Duration of Femoral Head Visualization?

Kyle Maas; Nicholas Chiaramonti; Ira Zaltz, MD; Alex Gornitzky, MD
University of Michigan, Ann Arbor, MI, U.S.

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Osteochondral Allograft Transplantation for Large Chondral Lesions of the Femoral Head in Young Patients

V. Salil Upasani, MD; Omid Jalali, MD; James David Bomar, MPH; Lei Zhao; Patrick William Whitlock, MD, PhD; Jordan K. Penn; Julie McCauley; William Bugbee; Andrew Pennock, MD
Rady Children's Hospital, San Diego, San Diego, CA, U.S.

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Outcomes of Hip Arthroscopy With Concomitant Periacetabular Osteotomy: Minimum Five-Year Follow-Up

Ady Haim Kahana-Rojkind; Ali Parsa; Saiswarnesh Padmanabhan; Rachel Bruning; Justin Mark Lareau; Benjamin Domb
American Hip Institute Research Foundation, Des Plaines, IL, U.S.

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Outcomes of Treatment of Pediatric Pathologic Femoral Neck Fractures

Rishi Sinha; Shamrez Haider; Chinelo Onubogu; Alexandra Callan; David A. Podeszwa, MD; William Zachary Morris, MD
Scottish Rite for Children, Dallas, TX, U.S.

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Patients with CMT Undergoing a Bernese PAO Return to Baseline Gait Parameters and Improve Patient Reported Outcomes at Two Years But Are Worse than Normal Controls

Andrew Hinkle; Nicholas Anable; Lauren Osborne; David A. Podeszwa, MD; William Zachary Morris, MD; Daniel J. Sucato, MD, MS
Scottish Rite for Children, Dallas, TX, U.S.

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Perthes Disease. Ellipsoidal Process: Is it Possible to Prevent the Deformity?

Margarita Montero Diaz; Juan Carlos Abril, PhD
Ruber International Hospital, Madrid, Spain

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Postoperative Cast Immobilization Might be Unnecessary after Pelvic Osteotomy for Children with Developmental Dysplasia of the Hip: A Systematic Review

Mohamed Mai; Renee Anne Van Stralen; Sophie Moerman; Christiaan J.A. Van Bergen
Force Amphia, Breda, Netherlands

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Pre-operative Gallows Traction as an Adjunct to Hip Open Reduction Surgery: Is it Safe and is it Effective?

Nicholas Uren; Alexander Aarvold, BSc, MBChB, FRCSEd; Julia Judd, NP; Kirsten Elliott; Stephanie Jane Buchan; Edward Lindisfarne, MA, MBBS
University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom

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Radiation Burden and Associated Cancer Risk Amongst Children Undergoing Open Reduction for Developmental Dysplasia of the Hip (DDH)

Waseem Hasan; Nicholas Uren; Alexander Aarvold, BSc, MBChB, FRCSEd
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Re-analyses of Treatment Outcomes and Prognostic Factors of a Large Prospective Multicenter Study of Legg–Calvé–Perthes Disease Using the Sphericity Deviation Score

Michael Seungcheol Kang; Arnav Kak; Lauren Osborne; John Anthony "Tony" Herring, MD, FRCS; Harry K.W. Kim, MD
Scottish Rite for Children, Dallas, TX, U.S.

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Relationship of Self-Reported Pain, Degree of Hip Dysplasia and Behavioral Health Diagnosis in Adolescents and Young Adults

Heather M. Richard, PsyD; Daryn Strub; Kirsten Tulchin-Francis, PhD; Craig Smith; Kevin E. Klingele, MD
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Shenton's Line in DDH: Useful or Useless?

Jessica Poppy Jane Larwood; Richard Connell; Waseem Hasan; Alexander Aarvold, BSc, MBChB, FRCSEd
University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom

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The Anterior Modified San Diego Acetabuloplasty Does Not Result in Improved Anterior Acetabular Coverage

Joshua Carroll Tadlock, MD; Garrett E. Rupp; Christine L. Farnsworth, MS; James David Bomar, MPH; Jason Patrick Caffrey; V. Salil Upasani, MD
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The Detrimental Effect of Human Growth Hormone Treatment on the Development of Slipped Capital Femoral Epiphysis

Mehul Mittal; David Momtaz; Rishi Gonuguntla; Mahshid Mohseni; Beltran Torres-Izquierdo; Aaron Singh; Pooya Hosseinzadeh, MD
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The Sphericity Deviation Score, a Continuous Parameter to Assess Femoral Head Sphericity in Legg-Calvé-Perthes Disease: is it Useful and Reliable?

Chiara Blatti; Jennifer C. Laine, MD; Anders Wensaas; Sahar Toumie; Armend Fejzulaj; Stefan Huhnstock
Oslo University Hospital, Oslo, Norway

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Trans-Perineal Hip Ultrasound in DDH Patients Treated with Pavlik Harness and Tübingen Hip Flexion Splint

Xuemin Lyu, MD, PhD; Zheng Yang
Beijing Jishuitan Hospital, Beijing, People's Republic of China

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Treatment Outcomes at Skeletal Maturity after Physeal-sparing Procedure for Early-Onset Slipped Capital Femoral Epiphysis

Mi Hyun Song; Chang-Ho Shin, MD; Tae-Joon Cho, MD
Seoul National University Children's Hospital, Seoul, Republic of Korea

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Ultrasound and Magnetic Resonance in Spica Cast for Detection of Femoral Head Reduction in Unstable Developmental Dysplasia of the Hip

Nicola Guindani, MD; Luca Grion; Jole Graci; Federico Chiodini
Papa Giovanni XXIII Hospital, Bergamo, Italy

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Upper Retinacular Vascular Avulsion: A Newly Described Cause of Avascularity of the Femoral Epiphysis in Unstable SCFE

Katherine Sara Hajdu; David Ebenezer, MD; Nathaniel Lempert, MD; Craig R. Louer, MD; Stephanie N. Moore-Lotridge, PhD; Courtney Baker, MD; Jonathan G. Schoenecker, MD, PhD
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INFECTION AND TUMOR

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Clavicular Osteomyelitis In Children: Special Considerations For The Orthopaedic Surgeon

Jessica Davis Burns, MD, MPH
Phoenix Children's Hospital, Phoenix, AZ, U.S.

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Does Rickets Carry an Increased Risk of Osteomyelitis and Septic Arthritis? A Large Database Study

Monish Sai Lavu; Chloe Heather Van Dorn; Lukas Bobak; Robert John Burkhart; David Kaelber; R. Justin Mistovich, MD, MBA
University Hospitals Rainbow Babies and Children's Hospital, Cleveland, OH, U.S.

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Is Exclusive Oral Antibiotic Treatment Feasible in Pediatric Uncomplicated Osteomyelitis?

Cindy Mallet; Anne-Laure Simon, MD, PhD; Brice Ilharreborde, MD
Robert Debre Hospital, Paris, France

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It's as Easy as CBC (with a Diff): Using the Neutrophil-to-Lymphocyte-to-Platelet Ratio to determine the Severity of Pediatric Musculoskeletal Infection

Brian Quincey Hou; Malini Anand; William Franklin Hefley; Katherine Sara Hajdu; Stephen Chenard; Anoop Chandrashekar; Naadir Jamal; Michael Joseph Greenberg; Courtney Baker, MD; Keith D. Baldwin, MD; **Stephanie N. Moore-Lotridge, PhD**; Jonathan G. Schoenecker, MD, PhD
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Knee Septic Arthritis or Lyme Disease – Can It Be Predicted?

Ying Li, MD; Ryan Sanborn; Danielle Cook; Keith D. Baldwin, MD; Benjamin J. Shore, MD, MPH, FRCSC; Children's Orthopaedic Trauma and Infection Consortium for Evidence-Based Studies (CORTICES)
University of Michigan, Ann Arbor, MI, U.S.

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Neurodivergent Patients are at Increased Risk of Infection after Orthopaedic Surgery - a multicentre Cohort Study Across 25 Years

Janus Wong; Lauren Sun; Alfred Lee; Noah So; Evelyn Kuong, MD; Michael To; Wang Chow
The University of Hong Kong, Hong Kong, Hong Kong

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Pathologic Fractures in Patients with Neuroblastoma Impacts Overall Survival

David Matthew Kell; Sulagna Sarkar; Akbar Nawaz Syed; Ryan Guzek; Jie C. Nguyen; **Alexandre Arkader, MD**
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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Peroneal Nerve Decompression in Pediatric Patients with Multiple Hereditary Exostoses

Aaron Huser, DO; Hans K. Nugraha; Arun R. Hariharan, MD, MS; David S. Feldman, MD
Paley Orthopedic & Spine Institute, West Palm Beach, FL, U.S.

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Prevalence of Osteochondromas in the Spine in Patients with Multiple Hereditary Exostoses

Carlos Monroig-Rivera; Lauren Bockhorn; Brenda Santillan; David C. Thornberg; **Karl E. Rathjen, MD**
Scottish Rite for Children, Dallas, TX, U.S.

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Resident-Performed Bedside Aspiration for Workup of the Pediatric Septic Hip: Expedited Diagnosis, No Decrease in Time to Definitive Treatment

Kira Skaggs; Olivia Okoli; Hiba Naz; Nicole S. Pham; John Vorhies, MD; **Kali Tileston, MD**
Stanford University, Palo Alto, CA, U.S.

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Separate Resection of Biopsy Tract and Primary Sarcoma: Implications for Local Recurrence and Overall Survival

Michael D. Eckhoff; Thomas J. Utset-Ward; Daryn Strub, BA; Kirsten Tulchin-Francis, PhD; Thomas J. Scharschmidt, MD
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Single Stage Surgical Debridement With and Without Local Application of Vancomycin Loaded Calcium Sulphate for Treatment of Chronic Osteomyelitis in Children, A Comparative Study

Ahmed Hamed Kassem Abdelaal, MD
Sohag University, Sohag, Egypt

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Treatment of Aneurysmal Bone Cysts in Children and Risk Factors for Fractures and Complications: A Multicenter Study

Ali Erkan Yenigül; Mahmut Kursat Ozsahin; Osman Emre Aycan; Ömer Sofulu; Bahattin Kerem Aydin; Ahmet Nadir Aydemir; Sahin Cepni; Bulent Erol, MD; **Cenk Ermutlu; Bartu Sarisozen, MD**; Turkish Society of Children's Orthopaedics Tumour Study Group
Marmara University, Istanbul, Turkey

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A Good Index Surgery for Congenital Pseudoarthrosis of the Tibia Minimizes Eventual Leg Length Discrepancy Following Treatment

Yinzhi PEI; Chloe Chan; Si Heng Sharon Tan; Andrew Lim; James Hoi Po Hui, FRCSE; Bo Ning
National University Health System, Singapore, Singapore

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A Novel Plate Design for Rotational Guided Growth - an Experimental Study in Immature Porcine Femurs

Ahmed Halloum; Maria Tirta; Søren Kold; Jan Duedal Rølfing; Ahmed Abdul-Hussein Abood; Shima Gholinezhad; Ali Yalcinkaya; Ole Rahbek
Aalborg University Hospital, Aalborg, Denmark

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Assessing the Accuracy of Predictive Models in Angular Deformity

Brian C. Lynch, MD; Robert K. Lark, MD; Robert Fitch
Duke University, Durham, NC, U.S.

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Comparing RVUs for Intramedullary Limb Lengthening Procedures to Common Pediatric Orthopaedic Surgeries to Determine Adequate Compensation

Jill C. Flanagan, MD; Sonia Gilani; Anirejuoritse Bafor; Christopher A. Iobst, MD
Children's Healthcare of Atlanta, Atlanta, GA, U.S.

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Decision Making in Congenital Femoral Deficiency: A Stated Preference Survey of Patients, Parents, and Clinicians

Ilene Hollin; Sarah Beth Nossor, MD; Corinna C. Franklin, MD; Henrike Schmalfuss; Camille Brown; Malliena DeShields; Kyrillos Akhnoukh
Shriners Children's™ Philadelphia, Philadelphia, PA, U.S.

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Does Percentage of Canal Reaming Prior to Insertion of Motorized Intramedullary Nails Influence Consolidation Time in Limb Length Discrepancy Corrections?

John E. Herzenberg, MD; Philip McClure, MD; Larysa Hlukha; Sandeep Bains
International Center for Limb Lengthening, Baltimore, MD, U.S.

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Hemi-epiphysiodesis Correction Rates for Lower Extremity Malalignment are Similar Between Multiple Hereditary Exostoses and Idiopathic Populations

Joshua Bram; Don Tianmu Li; Olivia Christina Tracey; Emilie Lijesen; Danielle Chipman; Roger F. Widmann, MD; Emily Dodwell, MD; John S. Blanco, MD; Daniel W. Green, MD
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Infantile Blount Disease and Overweight in Ghana

Niels Jansen; Heleen Staal
Maastricht UMC+, Maastricht, Netherlands

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International Field Test of LIMB-Q Kids: A New Patient Reported Outcome Measure for Lower Limb Differences

Harpreet Chhina PhD; Anne Klassen; Jan Duedal Rølfing; Bjoern Vogt, MD; Mohan V. Belthur, MD; Alicia Kerrigan, MD; Marcel Abouassaly; Jonathan Wright; Ashish Ranade; Louise Johnson; David A. Podeszwa, MD; James Alfred Fernandes; Juergen Messner; Christopher A. Iobst, MD; Sanjeev Sabharwal, MD, MPH; Anthony Philip Cooper, FRCS; LIMB-Q Kids Study Group
University of British Columbia, Vancouver, BC, Canada

ePoster 76**Limb Reconstruction in Severe Tibial Hemimelia: Minimum 4-year Follow-up**

Aaron Huser, DO; David S. Feldman, MD; Claire Elizabeth Shannon, MD; Katherine Miller, MD; Dror Paley, MD
Paley Orthopedic & Spine Institute, West Palm Beach, FL, U.S.

ePoster 77**Magnetic Intramedullary Lengthening Nails can be Lengthened to their Maximum with No Increase in Nail Failure**

Jeremy Dubin; Sandeep Bains; Daniel Hameed; John E. Herzenberg, MD; Michael Assayag; Philip McClure, MD
International Center for Limb Lengthening, Baltimore, MD, U.S.

ePoster 78**Patients with Lower Limb Deficiencies Mobilizing with Extension-prosthesis - Long-term follow-up, Quality of Life (QoL) and Function**

Sharon Eylon; Raafat Akil; Patrice L. (Tamar) Weiss; Vladimir Goldman
Alyn Rehabilitation hospital for Children & Adolescents, Jerusalem, Israel

ePoster 79**Re-use of Motorized Intramedullary Limb Lengthening Nails ♦**

Andrew Gregory Georgiadis, MD; Nickolas Nahm, MD; Mark T. Dahl, MD
Gillette Children's, St. Paul, MN, U.S.

ePoster 80**Unrecognized Consequences of Growth Modulation: Are We Prioritizing Limb Alignment Over Future Joint Health?**

Taylor Zak; Elizabeth W. Hubbard, MD; Anthony Minopoli; Claire Shivers; David A. Podeszwa, MD
Scottish Rite for Children, Dallas, TX, U.S.

NEUROMUSCULAR**ePoster 81****10-years Patient Reported Outcome Follow-up of Children with Cerebral Palsy Treated with Tibialis Posterior Tendon Transfer**

Prajahi Ketheeswaran Kumarasamy; Line Kjeldgaard Pedersen; Polina Martinkevich; Bjarne Møller-Madsen
Aarhus University Hospital and dpur.dk, Aarhus, Denmark

ePoster 82**Clinical, Densitometric and Laboratory Evaluation of Bones in Children with Neuro-Orthopedic Diseases Resulting in Motor Disability**

Wojciech Stelmach; Kryspin Niedzielski; Krzysztof Malecki; Pawel Flont; Kornelia Pruchnik Witoslawska
Polish Mother's Memorial Hospital Research institute, Łódź, Poland

ePoster 83 ★**Incidence of Femur Fracture Post Hardware Removal in Children with Cerebral Palsy Who Have Undergone Varus Derotational Osteotomy**

Ellie Montufar Wright; Luiz Carlos Almeida Da Silva; Jason Howard, MD; Sarah Raab; Kenneth Rogers, PhD, ATC; Amelia M. Lindgren, MD; Freeman Miller, MD; Arianna Trionfo, MD; M. Wade Shrader, MD
Nemours Children's Hospital, Wilmington, DE, U.S.

ePoster 84**Medium-Term Outcomes after Multi-Level Surgery in Children with Bilateral Cerebral Palsy**

Ken Ye; Ayman D'Souza; Rebecca Morgan; Alpesh Kothari, MA, BM, BCh, AFHEA, MSc, DPhil, FRCS
Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom

★ Nominated for Best ePoster

♦ Indicates a presentation in which the FDA has not cleared the drug and/or medical device for the use described (i.e., the drug or medical device is being discussed for an "off label" use)."

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One Injection of BoNT-A in Biceps Brachii in CP has Both a Degenerative and Regenerative Effect

Eva M. Ponten, MD, PhD; Ferdinand Von Walden, MD, PhD; Alexandra Palmcrantz; Per Stal
Karolinska Institutet, Stockholm, Sweden

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Recurrence of Spastic Planovalgus Foot in Cerebral Palsy: A Comprehensive Study on Influencing Factors

Ana Laura Arenas Diaz, MPH; Carlos Alfonso Guzmán-Martín; Thania Ordaz; Agustin Barajas Monterrey; Andrea Gabriela García Rueda; Erika Barron Torres; Clemente Hernández; Javier Masquijo, MD
Shriners Children's™ Mexico, Mexico City, Mexico

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Rotation and Asymmetry of the Axial Plane Pelvis in Cerebral Palsy: A CT-Based Study

Akbar Nawaz Syed; Jenny Liu Zheng; Christine Goodbody; Patrick John Cahill, MD; David A. Spiegel, MD; Keith D. Baldwin, MD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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Talo-Calcaneal-Navicular Realignment Surgery in Severe Neurologic Equinovarus Foot. Mid-Term Results of a Novel Surgical Approach

María Galán Olleros; María Jesus Figueroa; Ana Ramirez Barragan; Gonzalo Andres Chorbadian Alonso; Manuel Fraga; Ignacio Martinez Caballero
Hospital Infantil Universitario Niño Jesús, Madrid, Spain

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Worsening Gait Deviations in Hereditary Spastic Paraparesis

Lizabeth Bunkell; Cinthya Meza; Kelly Jeans; Linsley B. Smith; Michelle Christie; Fabiola Reyes; Robert Lane Wimberly, MD
Scottish Rite for Children, Dallas, TX, U.S.

QUALITY, SAFETY, VALUE INITIATIVES; ARTIFICIAL INTELLIGENCE; MACHINE LEARNING; AND MISCELLANEOUS

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Cost Analysis and Variability in Pediatric Anterior Cruciate Ligament Reconstruction: Insights for Optimizing Surgical Value

Emily Moya; Kelly Heavner McFarlane; Kali Tileston, MD; Charles M. Chan, MD; Kevin G. Shea, MD
Stanford University, Palo Alto, CA, U.S.

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Efficacy of DIY Cast Covers: An In Vivo Study

John A. Schlechter, DO; Amirhossein Misaghi, MD; Remy Zimmerman; Gian Ignacio; Hayley Ditmars, B.S.
Riverside University Health Systems, Moreno Valley, CA, U.S.

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Embracing Wide Awake Techniques in Pediatric Orthopaedic Surgery

Sonia Chaudhry, MD, BS, FAAOS, FACS; Lisa Tamburini
Connecticut Children's Medical Center, Hartford, CT, U.S.

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Late Diagnosis of Developmental Dysplasia of the Hip in a Country Using Selective Ultrasound Screening

Frederike Mulder; Hei Sook Femke Hagenmaier; Heleen Staal; Joëlle Rosier; Adhiambo Witlox
Maastricht UMC+, Maastricht, Netherlands

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Long-Term Complications of Peripheral Nerve Blocks in Pediatric Orthopaedic Lower Extremity Procedures: A Systematic Review

Yifan Mao, BS, BA; Sunny Trivedi, MD; Charlotte Wahle, BA; Dimpay Wraich, BS; Kevin G. Shea, MD; Kesavan Sadacharam; Jennifer J. Beck, MD; POSNA QSVI
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ePoster 95 ★

Optimizing Intraoperative Irradiation Levels for Paediatric Orthopaedics Surgeries: Radiation Doses Does Matter

Mohamed Laroussi Toumia; Stephanie Pannier, MD, PhD; Alina Badina; Bouchra Habib Geryes
Necker University Hospital, APHP, Paris, France

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POSNA Safe Surgery Program (PSSP): First-Year Results for Entire POSNA Membership

Kali Tileston, MD; Michael G. Vitale, MD, MPH; Robert Hyun Cho, MD; Verena M. Schreiber, MD; Henry Bone Ellis, MD; Henry J. Iwinski, MD; Zachary Stinson, MD; Bryan Tompkins, MD; Kevin G. Shea, MD
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Safety Profile Following Tibial Tubercle Osteotomy for Adolescents in an Ambulatory Surgery Center

Garrett Sohn; Nolan Daniel Hawkins; Caroline Podvin; Madison Brenner; Savannah Cooper; Benjamin Johnson; Charles Wyatt, NP; Henry Bone Ellis, MD; Philip Wilson, MD
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The Importance of Surgeon Dashboarding for Comparative Quality and Safety Outcomes When Adopting Robotics in Practice

Alexa Bosco; Nicole Welch; Maty Petcharaporn; Michelle Marks, PT, MA; Shanika De Silva; Daniel Hedequist, MD
Boston Children's Hospital, Boston, MA, U.S.

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Utilizing Neural Networks for Ultrasound Evaluation of Developmental Dysplasia of the Hip

Hsuan Kai Kao, MD; Wei-Chun Lee, MD, PhD; Szu-Yao Wang; Wen-E Yang, MD; Chia-Hsieh Chang, MD, PhD
Chang Gung Memorial Hospital, Taoyuan, Taiwan

SPINE

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2-Year Follow Up from a Prospective Study on a Posterior Dynamic Distraction Device for Adolescent Idiopathic Scoliosis

Kevin M. Neal, MD; Ron El-Hawary, MD, MSc; Gilbert Chan, MD; Geoffrey F. Haft, MD; Timothy S. Oswald, MD; A. Noelle Larson, MD; Ryan Fitzgerald, MD; Alvin C. Jones, MD, MS; Baron S. Lonner, MD; Todd A. Milbrandt, MD; Christina K. Hardesty, MD; John T. Anderson, MD; Michael C. Albert, MD; Nigel J. Price, MD
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A Comparison of Intrathecal Morphine Injection vs. IV Methadone for Pain Control for Posterior Spinal Fusion in Adolescent Idiopathic Scoliosis

Devan Kumar; Rohini Mahajan Vanodia; Surya Mundluru, MD; Lindsay Michele Crawford, MD; Shiraz A. Younas, MD; Timothy C. Borden, MD
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A Comparison of Two Central Sacral Vertical Line Methods and Their Effect on Curve Correction

Varun Ravi; Adam A. Jamnik; Alexander Turner; Emeka N. Andrews; Yves Kenfack; David C. Thornberg; Jaysson T. Brooks, MD
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Accuracy and Safety of 3D-Printed Patient-Specific Pedicle Screw Insertion Technique in Complex Spine Deformity Correction; Analysis of 60 Patients Performed at a Large Academic Center

Assem Sultan; Omolola Priscilla Fakunle; Mustafa Mahmood; Conner J. Paez; Ahmed K. Emara; Dimitri Joseph Mabarak; Thomas Kuivila; Ryan C. Goodwin, MD
Cleveland Clinic Foundation, Cleveland, OH, U.S.

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An Efficient, Steady, Or Dual-Surgeon Allows for the Best Outcomes?

Vishal Sarwahi, MBBS, MS; Katherine Eigo; Alex Kwong Juen Ngan; Sarah M. Trent; Sayyida Hasan; Brian Li; Yungtai Lo; Terry D. Amaral, MD
Northwell Health, New Hyde Park, NY, U.S.

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Analysis of 5,525 Consecutive Pedicle Screws Placed Utilizing Robotically-Assisted Surgical Navigation: Surgical Safety and Early Complications

Roger F. Widmann, MD; Jenna L. Wisch; Colson Zucker; Olivia Christina Tracey; Tyler Feddema; Florian Miller; Gabriel S. Linden; Mark A. Erickson, MD; Jessica H. Heyer, MD
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ePoster 106

Comparison of Perioperative Complication Rates in Congenital Scoliosis Patients with Tethered Cord

Andrea Munoz; Leila Mehraban Alvandi, PhD; Edina Gjonbalaj; Allyn Morris; Pediatric Spine Study Group; Paul D. Sponseller, MD, MBA; Richard Anderson; Jaime A. Gomez, MD
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ePoster 107

Complexities of Orthopedic Epidemic: Adolescent Back Pain

Heather M. Richard, PsyD; Gerrit Franko; Kirsten Tulchin-Francis, PhD
Nationwide Children's Hospital, Columbus, OH, U.S.

ePoster 108

Development of Pelvic Incidence, Sacral Slope and Pelvic Tilt and the Effect of age, Sex, and BMI: An Automated 3D-CT Study of 10,969 Children and Adolescents

Eduardo Novais, MD; Mohammadreza Movahhedi; Munif Hatem; Mallika Singh; Shanika De Silva; Nazgol Tavabi; Grant Douglas Hogue, MD; Young Jo Kim, MD; Sarah D. Bixby; Ata M. Kiapour, PhD, MMSc
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ePoster 109 ★

Differences in Spine Growth Potential for Sanders Maturation Stages 7A and 7B Have Implications for Treatment of Idiopathic Scoliosis

Yusuke Hori; Burak Kaymaz; Luiz Carlos Almeida Da Silva; Kenneth Rogers, PhD, ATC; Petya Yorgova; Peter G. Gabos, MD; Suken A. Shah, MD
Nemours Children's Hospital, Wilmington, DE, U.S.

ePoster 110

Do Neuromuscular Early-Onset Scoliosis Patients with Rib-on-Pelvis Deformity Have Decreased Reported Pain after Surgery?

Vineet Desai; Margaret Bowen; Jason Anari, MD; John "Jack" M. Flynn, MD; Jaysson T. Brooks, MD; Brian D. Snyder, MD; Brandon A. Ramo, MD; Jason Howard, MD; Ying Li, MD; Lindsay Andras, MD; Walter Lam Huu Truong, MD; Ryan Fitzgerald, MD; Ron El-Hawary, MD, MSc; Benjamin D. Royce, MD; Burt Yaszay, MD; Kenny Kwan; Amy McIntosh, MD; Susan Nelson, MD, MPH; Patrick John Cahill, MD; Pediatric Spine Study Group
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ePoster 111

Do Parents and Patients with Early Onset Scoliosis (EOS) Share the Same Perspective On Health-Related Quality of Life? A Comparison of EOSQ-24 and SRS-22 Scores

Rachel Gottlieb; John T. Smith, MD; Firoz Miyanji, MD, FRCSC; Juan Carlos Rodriguez; Ron El-Hawary, MD, MSc; Ying Li, MD; Pediatric Spine Study Group
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Early Tether Rupture Prior to 2-Years Compromises Growth Modulation by Failing to Impede Convex Growth

Ambika Paulson; V. Salil Upasani, MD; Jennifer Hurry; Hui Nian; Christine L. Farnsworth, MS; Peter O. Newton, MD; Stefan Parent, MD, PhD; Pediatric Spine Study Group; Ron El-Hawary, MD, MSc; **Craig R. Louer, MD**
Vanderbilt University Medical Center, Nashville, TN, U.S.

ePoster 113

Effectiveness of a Subcutaneous Bupivacaine Catheter for Pain Control and Opioid Reduction in Pediatric Spine Fusion Surgery: A Retrospective Cohort Study

Joshua Acebo; Kenzo Cotton; Emma Wiest; Jordan M. Walters; Eric Siegel; Richard E. McCarthy, MD; **David Bumpass, MD**
Arkansas Children's Hospital, Little Rock, AR, U.S.

ePoster 114 ★

Have We Improved Anterior Vertebral Body Tethering Outcomes Over Time? An Examination of Survivorship Trends

Joshua Carroll Tadlock, MD; Peter O. Newton, MD; Tracey P. Bastrom, MA; Stefan Parent, MD, PhD; Firoz Miyanji, MD, FRCSC; Harms Study Group
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Hip Pain After Spinopelvic Fixation with Sacral Alar Iliac Screws in Pediatric Neuromuscular Scoliosis

Pochih Shen; Mark A. Erickson, MD; Nancy Hadley Miller, MD
Children's Hospital Colorado, Denver, CO, U.S.

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Impact of Comorbidities on Mortality in Neuromuscular Patients with Early Onset Scoliosis

Hiroko Matsumoto, PhD; Bhavana Gunda; Taylor-Marie Adams; Sydney Lee; Maria Fernanda Canizares; John T. Smith, MD; Paul D. Sponseller, MD, MBA; Mark A. Erickson, MD; Brian D. Snyder, MD; Pediatric Spine Study Group
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ePoster 117 ★

Intraoperative Neuromonitoring Events During Spinal Fusion for Scoliosis: A Case Series

John F. Lovejoy, MD; Mark Lewis; Shane Saifman; Jonathan Daniel Schwartzman
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ePoster 118 ★

Is a BRAIST for One, a BRAIST for All? Evaluating the Effect of the BRAIST Trial on Spinal Fusion Rates Across Race and Insurance Status

Anthony Catanzano, MD; Tristan Chari; John Atwater; Emily Poehlein; Cindy Green
Duke University, Durham, NC, U.S.

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Lowest Instrumented Vertebra (LIV) Selection in Thoracic Adolescent Idiopathic Scoliosis (AIS): LIV Selection Drawn for Cotrel-Dubousset Original Technique Including Sagittal Disc Mobility

Benjamin Salle; Benoit De Courtivron; Francois Bergerault, MD; Marc-Florent Tassi; Thierry Odent
CHU Tours Hopital Clocheville, Tours, France

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Lowest Instrumented Vertebra in Treatment of Adolescent Idiopathic Scoliosis is Not Correlated with PROMIS Scores

Katherine Sborov; Mansi Agarwal; De-An Zhang; Robert Hyun Cho, MD; Cynthia Nguyen, MD; **Selina Poon, MD**
Shriners Children's™ Southern California, Pasadena, CA, U.S.

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Medical Issues Complicate 90 Day Return to the ED following Spinal Deformity Surgery

Vishal Sarwahi, MBBS, MS; Sayyida Hasan; Keshin Visahan; Victor Koltenyuk; Katherine Eigo; Aravind Patil; **Terry D. Amaral, MD**
Northwell Health, New Hyde Park, NY, U.S.

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MRI Results in Patients Undergoing Surgery for Adolescent Idiopathic Scoliosis: Neural Axis Abnormalities and Neurosurgical Interventions

Mark Lewis; **Kevin M. Neal, MD**
Nemours Children's Health, Jacksonville, FL, U.S.

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Multi-Disciplinary Perioperative Pathway for Neuromuscular Scoliosis Patients

Bryce Pember; Lorena Floccari, MD; Richard Steiner; Matt Holloway; **Todd F. Ritzman, MD**
Akron Children's Hospital, Akron, OH, U.S.

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Novel Surface Topographic Assessment of Lung Volume in Pediatric Spinal Deformity Patients

Jessica H. Heyer, MD; Jenna L. Wisch; Kiranpreet Nagra; Ankush Thakur; Howard Hillstrom; Benjamin Groisser; Colson Zucker; Matthew Cunningham; Michael T. Hresko, MD; Ram Haddas; John S. Blanco, MD; Mary F. Di Maio; Roger F. Widmann, MD; HSS Spinal Alignment Registry
Hospital for Special Surgery, New York, NY, U.S.

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Pelvic Asymmetry in Myelomeningocele Associated with Scoliosis

Michael Benvenuti, MD; Lawrence I. Karlin, MD
Boston Children's Hospital, Boston, MA, U.S.

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Peri-Operative Outcomes of Posterior Dynamic Deformity Device Compared to Vertebral Body Tethering for Adolescent Idiopathic Scoliosis

Julia Todderud; **A. Noelle Larson, MD**; Geoffrey F. Haft, MD; Ron El-Hawary, MD, MSc; John T. Anderson, MD; Ryan Fitzgerald, MD; Timothy S. Oswald, MD; Gilbert Chan, MD; Baron S. Lonner, MD; Michael C. Albert, MD; Daniel G. Hoernschemeyer, MD; Todd A. Milbrandt, MD
Mayo Clinic, Rochester, MN, U.S.

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Plastic Multilayered Closure Reduces Surgical Site Infections in Pediatric Neuromuscular Scoliosis Surgery

Jason Amaral; McKenna C. Noe; Rebecca Schultz; Tristen Taylor; John T. Anderson, MD; Richard M. Schwend, MD; **Brian G. Smith, MD**
Baylor College of Medicine, Houston, TX, U.S.

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PROMIS and ODI Tools: Clinically Useful Predictors of Abnormal MRIs in Pediatric Back Pain?

Devan James Devkumar; Karina A. Zapata, PT, DPT, PhD; Chan-Hee Jo, PhD; Brandon A. Ramo, MD
Scottish Rite for Children, Dallas, TX, U.S.

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Put a Ring on it! Wedding Band Connectors Have Fewer Complications Than Tandem Connectors in Traditional Growing Rod Constructs

Sydney Lee; Kelsey Mikayla Flowers Zachos; Paul D. Sponseller, MD, MBA; Peter F. Sturm, MD; Matthew E. Oetgen, MD, MBA; John B. Emans, MD; **Grant Douglas Hogue, MD**; Pediatric Spine Study Group
Boston Children's Hospital, Boston, MA, U.S.

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Radiation-Free Assessment of The 3D Morphology of the Adolescent Scoliotic Spine: A Feasibility Study in Synthetic CT

Lorenzo Costa; Tijl Van Der Velden; Tom P. Schlosser, MD; **Rene Marten Castelein, MD**; Peter Seevinck
University Medical Center Utrecht, Utrecht, Netherlands

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Rigo Cheneau Brace for Adolescent Idiopathic Scoliosis: Higher in Brace Correction and Lower Rates of Curve Progression

Lisa Bonsignore-Opp; Ritt Givens; Rajiv Iyer; Hiroko Matsumoto, PhD; Nicole Bainton; Benjamin D. Roye, MD; **Michael G. Vitale, MD, MPH**
Columbia University, New York, NY, U.S.

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Rigo versus Boston Brace for Treatment of Adolescent Idiopathic Scoliosis

Qais Zai; Petar Golijanin; Romil Shah; Cortney Matthews; Kirsten Ross, MD; **Brian Edward Kaufman, MD**
Dell Medical School at the University of Texas at Austin, Austin, TX, U.S.

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Risk of Proximal Junctional Kyphosis After Revision of Growing Rod Constructs

Chidebelum Nnake; Alondra Concepción-González; Matan Malka; Simon Blanchard; Ron El-Hawary, MD, MSc; **Michael G. Vitale, MD, MPH**; Pediatric Spine Study Group; Benjamin D. Roye, MD
Columbia University Irving Medical Center, New York, NY, U.S.

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Safety and Efficacy of a Novel Technique for Posterior Column Osteotomy in Patients with Adolescent Idiopathic Scoliosis Undergoing Posterior Spinal Fusion

Alec Christian Stall, MD; Ryan M. Ilgenfritz, MD; Naveed Nabizadeh; Michael Read
Nemours Children's Health, Orlando, FL, U.S.

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Screening MRI in Congenital EOS: Is it Safe to Delay Advanced Imaging to Decrease Early Anesthesia?

Evan Mostafa, MD; Leila Mehraban Alvandi, PhD; Edina Gjonbalaj; John B. Emans, MD; Paul D. Sponseller, MD, MBA; Purnendu Gupta, MD; A. Noelle Larson, MD; Pediatric Spine Study Group; **Jaime A. Gomez, MD**
Montefiore Medical Center, Bronx, NY, U.S.

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Similar Results with Less Spinal Cord Exposure: Comparison of In Situ Osteotomies with Traditional Ponte Osteotomies in AIS

Ian Hollyer; Katherine Margaret Krenek; Kali Tileston, MD; Meghan N. Imrie, MD; Lawrence A. Rinsky, MD; Kelly Heavner McFarlane; **John Vorhies, MD**; **RetroPonte**
Stanford University, Palo Alto, CA, U.S.

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The Fate of The Broken Tether: How Do Curves Treated with Vertebral Body Tethering (VBT) Behave After Tether Breakage?

Tyler A. Tetreault, MD; Tiffany Phan; Tishya A.L. Wren, PhD; Michael J. Heffernan, MD; Michelle C. Welborn, MD; John T. Smith, MD; Ron El-Hawary, MD, MSc; Kenneth MC Cheung, MD; Kenneth David Illingworth, MD; David L. Skaggs, MD; Lindsay Andras, MD; Pediatric Spine Study Group
Children's Hospital Los Angeles, Los Angeles, CA, U.S.

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The Impact of Operating Room Process versus Team Standardization on Outcomes in Pediatric Spinal Deformity Surgery

Vishal Sarwahi, MBBS, MS; Katherine Eigo; Sarah M. Trent; Alex Kwong Juen Ngan; Aravind Patil; Brian Li; Yungtai Lo; **Terry D. Amaral, MD**
Northwell Health, New Hyde Park, NY, U.S.

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Thoracic Deformity Index Correlates with Poorer Pre-Operative Pulmonary Function Testing in Patients with Adolescent Idiopathic Scoliosis of the Thoracic Spine

Charles Mechas; Trey William Moberly; Alison Dittmer, MD; Vishwas R. Talwalkar, MD; Ryan D. Muchow, MD; Vincent Prusick, MD
University of Kentucky/Shriners Children's™
Lexington, Lexington, KY, U.S.

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Vertebral Body Tethering vs Posterior Spinal Fusion for Lenke 1 AIS: A Single Surgeon Comparison with 2-6 Year Follow-up

Baron S. Lonner, MD; Ashley Wilczek; Rodnell Busigo Torres; Rami Rajjoub; Mateo Restrepo Mejia; Lily Eaker
Mount Sinai Hospital, New York, NY, U.S.

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What Factors Impact Flexibility after Spinal Fusion?

Vishal Sarwahi, MBBS, MS; Sayyida Hasan; Keshin Visahan; Brittney Moncrieffe; Katherine Eigo; Aravind Patil; Sarah M. Trent; Alex Kwong Juen Ngan; Terry D. Amaral, MD
Northwell Health, New Hyde Park, NY, U.S.

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A Cadaveric Study of the Sagittal Patellar Insertion of the Medial Patellofemoral Ligament in Children: Implications for Reconstruction

Amin Alayleh; Ian Hollyer; Thomas M. Johnstone; Bryan Khoo; Chiamaka Nneka Obilo; Kelly Heavner McFarlane; David Baird; Calvin Chan; Kevin G. Shea, MD
Stanford University, Palo Alto, CA, U.S.

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Biomechanical Comparison of Four "Hashtag" Suture Patterns for Repair of Lateral Meniscus Radial Tears

Kelly Heavner McFarlane; David Baird; Thomas Michael Johnstone; Amin Alayleh; Chiamaka Nneka Obilo; Bryan Khoo; Christian Wright; Vanessa Taylor; Ian Hollyer; Calvin Chan; Marc Tompkins; Henry Bone Ellis, MD; Theodore J. Ganley, MD; Yi-Meng Yen, MD; Seth Sherman; Kevin G. Shea, MD
Stanford University, Palo Alto, CA, U.S.

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Different Roads Traveled: Disparities in the Preoperative Timeline Result in Delays to Pediatric Anterior Cruciate Ligament Reconstruction

Michelle Andreea Nutescu; Samuel I. Rosenberg; Elizabeth Merritt; Neeraj Patel, MD, MPH
Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, U.S.

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Discoid Meniscus with Anterior Instability: Incidence, Presentation, Diagnosis, Treatment, and Outcomes.

Joseph N. Charla; Emily Ferreri; Leila Mehraban Alvandi, PhD; Edina Gjonbalaj; Jacob Schulz, MD; Eric Fornari, MD; Mauricio Drummond, MD
Children's Hospital at Montefiore, Bronx, NY, U.S.

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Factors Associated with Return to Sports in Patients Undergoing ACL Surgery: A 20-Year Analysis at a Tertiary-Care Children's Hospital

Benton E. Heyworth, MD; James Pruneski; Melissa A. Christino, MD; Mininder S. Kocher, MD, MPH; Dennis Kramer, MD; Lyle J. Micheli, MD; Matthew D. Milewski, MD; Yi-Meng Yen, MD; Nazgol Tavabi; Ata M. Kiapour, PhD, MMSc
Boston Children's Hospital, Boston, MA, U.S.

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Hamstring Autograft is Associated with Increased Knee Valgus Moment after ACL Reconstruction: A Biomechanical Analysis of Autograft Selection after Anterior Cruciate Ligament Reconstruction

Sailesh V. Tummala; Neeraj Vij; Kaycee Glatke; Amber Brennan, DPT; Jenni Winters; Seyed Hadi Salehi; Anikar Chhabra; **Heather Menzer, MD; PCH ACL Study Group**
Phoenix Children's Hospital, Phoenix, AZ, U.S.

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High Frequency of Meniscal Injuries Found in Adolescents with ACL tears

John Logan Reynolds; Tim Westbrook; Kyle Boden; Austin V. Stone; Mary Lloyd Ireland; Darren Johnson; **Benjamin Wilson, MD**
University of Kentucky, Lexington, KY, U.S.

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Patrick Ojeaga; Nolan Daniel Hawkins; Terrul Ratcliff; Rishi Sinha; Benjamin Johnson; Charles Wyatt, NP; Henry Bone Ellis, MD; **Philip Wilson, MD**
Scottish Rite for Children, Dallas, TX, U.S.

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Predictive Characteristics of Meniscal Tear Locations with Concomitant ACL Injury in Adolescents

Savannah Rose Troyer; David R. Howell; Claire Giachino; Hannah Rossing; Amanda Kass; Neeraj Patel, MD, MPH; Jay C. Albright, MD; **Curtis Daniel VandenBerg, MD**
University of Colorado, Denver, CO, U.S.

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Rates of Reoperation and Readmission Following Arthroscopic Pediatric and Adolescent Knee Surgery: Data from the SCORE Patient Registry, 2018-2022.

Philip Wilson, MD; Gregory Knell; Robert Yockey; James Joseph McGinley; Philip Austin Serbin; Garrett Sohn; Henry Bone Ellis, MD; SCORE
Scottish Rite for Children, Frisco, TX, U.S.

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Surgical Management and Long-Term follow up of Congenital and Obligatory Patellar Dislocation in Children

Roy Gigi; Addy S. Brandstetter, MD; Barry Danino, MD; Inbar Lidor; Amit Benady; Dror Ovadia, MD; Moshe Yaniv, MD
Tel Aviv Sourasky Medical Center – Ichilov Hospital, Tel Aviv, Israel

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Your Patella Dislocated: Will it Happen Again? An Assessment of MRI Criteria for Recurrent Patella Dislocation After an Initial Event

Jason Brenner; Leila Mehraban Alvandi, PhD; Steven Maxwell Henick; Edina Gjonbalaj; Benjamin J. Levy; Jacob Schulz, MD; Eric Fornari, MD; **Mauricio Drummond, MD**
Children's Hospital at Montefiore, Bronx, NY, U.S.

TRAUMA

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"Heat Mapping" of Pediatric and Adolescent Gun Violence in an Urban Center: Is Targeted Intervention One Possible Solution?

Emerson Rowe; Abbey Glover; **Martin J. Herman, MD**
Drexel University College of Medicine, Philadelphia, PA, U.S.

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A Clinical and Scientific Paradigm Shift: Revisiting Growth After Pediatric Radius Fracture Plating

Rachel Lenhart, MD, PhD; Pille-Riin Värk; Keith D. Baldwin, MD; Christine Goodbody; Jonathan G. Schoenecker, MD, PhD; Apurva S. Shah, MD, MBA
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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A Prospective Cohort Analysis of Two Nonoperative Treatment Modalities for the Management of Pediatric Type II Supracondylar Humerus Fractures

Mary Sun; Emily Schaeffer, PhD; Vuong Nguyen; Kishore Mulpuri, MBBS, MHSc, FRCSC; Christopher W. Reilly, MD
BC Children's Hospital, Vancouver, BC, Canada

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A Single Retrograde Intramedullary Nail Technique for Treatment of Displaced Proximal Humeral Fractures in Adolescents: Case Series and Review of the Literature

Eri Samara; Nicolas Lutz, MD
Children's University Hospital of Lausanne, Lausanne, Switzerland

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Acetabular "Fleck" Sign: Outcomes of Surgical Repair

Daniel Gaines; Stephanie Chen, MD; Kirsten Tulchin-Francis, PhD; Elizabeth Badowski; Craig Smith; Kevin E. Klingele, MD
Nationwide Children's Hospital, Columbus, OH, U.S.

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Avoiding Trouble with Pediatric Capitellar Fractures: Unusual Fracture Variants, TRASH Lesions, and Treatment Pearls

Soroush Baghdadi, MD; Daniel Yang; Pille-Riin Värk; Keith D. Baldwin, MD; Eliza Buttrick, BA; Apurva S. Shah, MD, MBA
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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Changes in Femoral Anteversion after Intramedullary Nail for Pediatric Femoral Shaft Fracture: A Multicenter Study

Jae Jung Min; Soon-Sun Kwon; Kibeom Youn; Daehyun Kim; Ki Hyuk Sung, MD; Moon Seok Park
Seoul National University Bundang Hospital, Seongnam, Republic of Korea

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Closed Reduction Techniques Lead to Fewer Complications Than Open Reductions In Treating Minimally and Moderately-Displaced Pediatric Lateral Humeral Condyle Fractures: A Multicenter Study

Abhishek Tippabhatla; Beltran Torres-Izquierdo; Daniel Pereira; Rachel Goldstein, MD; Julia Skye Sanders, MD; Kevin M. Neal, MD; Laura Bellaire, MD; Jaime Rice Denning, MD, MS; Pooya Hosseinzadeh, MD
Washington University in St. Louis, St. Louis, MO, U.S.

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Comminuted Ulna Fractures and Nerve Injuries: An Investigation in Monteggia Dislocations

Jason Amaral; Basel Touban, MD; Rebecca Schultz; Jacob Scioscia; Pablo Coello; Aharon Zvi Gladstein, MD; Scott D. McKay, MD
Baylor College of Medicine, Houston, TX, U.S.

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Diagnosis and Treatment of Lateral to Medial Diagonal Injury of the Elbow in Children: Concomitant Medial Epicondylar and Radial Neck Fractures

Yunan Lu; Federico Canavese, MD; Shunyou Chen
Fuzhou Second Hospital, Fuzhou, People's Republic of China

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Do Post-Operative Immobilization Protocols and Physical Therapy Impact Return of Elbow Motion Following Pinning of Supracondylar Humerus Type-III Fractures?

Akbar Nawaz Syed; Pooja Niles Balar; Margaret Bowen; J. Todd Lawrence, MD, PhD
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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Effect of Serum Vitamin D Levels in Pediatric Fracture Occurrence

David Liu; Susan T. Mahan, MD, MPH; Taylor-Marie Adams; Hiroko Matsumoto, PhD; Melissa S. Putman; Brian D. Snyder, MD
Boston Children's Hospital, Boston, MA, U.S.

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Effects of Casting Material on Reduction Maintenance

Emily Boschert, MD; Catalina Baez, MD; Alexis Clifford; Aaron Jennings; Stephanie Ihnow, MD; Jessica McQuerry, MD
University of Florida, Gainesville, FL, U.S.

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Elastic Stable Intramedullary Nail (ESIN) Treatment of Pediatric Femoral Shaft Fractures: Fracture Stability Does Not Predict Malunion or Major Complications

Nandini Patel; Charles T. Mehlman, DO, MPH; Jaime Rice Denning, MD, MS; Wendy Ramalingam, BS, MD
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.

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Elastic Stable Intramedullary Nail (ESIN) Treatment of Pediatric Tibial Shaft Fractures: Patients 75 Pounds and Over Have Higher Risk Malunion

Justin A. Jebackumar; Charles T. Mehlman, DO, MPH; Jaime Rice Denning, MD, MS; Wendy Ramalingam, MD
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.

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Enhanced Radiographic Union Score (RUST) of Adolescent Tibia Shaft Fractures Treated with Hexapod Circular External Fixation: A Multicenter Study of 38 Consecutive Cases

Ahmed Hagag, MD, PhD; Ibrahim Feras Salama; Anirejuoritse Bafor; Kyle Jay Klahs; Dillon Stone; Amr Atef Abdelgawad, MD, MBA; Christopher A. Iobst, MD
El Paso Children Hospital and Texas Tech Health Science Center, El Paso, TX, U.S.

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Financial Implications Associated with Use of Waterproof Casting Material in Pediatric Patients

Alexis Clifford; Aaron Jennings; Catalina Baez, MD; Emily Boschert, MD; Stephanie Ihnow, MD; Jessica McQuerry, MD
University of Florida, Gainesville, FL, U.S.

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Healthcare Utilization Following Closed Reduction and Percutaneous Pinning of Supracondylar Humerus Fractures

Elizabeth Cinquegrani; Matthew Van Boxtel; Jessica Hanley, MD
Medical College of Wisconsin, Milwaukee, WI, U.S.

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Implant Selection and Complications in Pediatric Monteggia Fracture Dislocations

Jason Amaral; Rebecca Schultz; Basel Touban, MD; Pablo Coello; Nihar Pathare; Aharon Zvi Gladstein, MD; Scott D. McKay, MD
Baylor College of Medicine, Houston, TX, U.S.

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Incidence and Long Term Follow up of Lateral Condyle Fractures

Mikaela Sullivan; Elizabeth Wellings; Prabin Thapa; A. Noelle Larson, MD; William J. Shaughnessy, MD; Anthony A. Stans, MD; Todd A. Milbrandt, MD
Mayo Clinic, Rochester, MN, U.S.

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Interfacility Transfer of Pediatric Supracondylar Elbow Fractures: Transfer by Ambulance Shows No Advantage in Speed of Transfer or Prevention Of Complications

Spencer Richardson; Sarah T. Levey, MD; Joash Rajesh Suryavanshi; Amrit Parihar; Curtis Vrabec; Robert Tysklind; **Robert J. Bielski, MD**
Indiana University, Indianapolis, IN, U.S.

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Intimate Partner Violence in Teenagers: Why Should the Pediatric Orthopaedic Surgeon Care?

Bharti Khurana; Rose Olson; Jeff Temple; **Randall T. Loder, MD**
Riley Children's Hospital, Indianapolis, IN, U.S.

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Is Tibial Intramedullary Nail Placement Safe When Placed Across Open Physes

Grant McHorse; K. John Wagner; Matthew D. Ellington, MD; Christopher D. Souder, MD
Dell Medical School at the University of Texas at Austin, Austin, TX, U.S.

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Lateral Overgrowth in Surgically Treated Pediatric Lateral Condyle Fractures

Adele Bloodworth; Shrey Nihalani; Gerald McGwin; Kevin Williams; **Michael J. Conklin, MD**
University of Alabama at Birmingham, Birmingham, AL, U.S.

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MRI Without Sedation or Anesthesia Can Guide Treatment of Minimally Displaced Pediatric Lateral Humeral Condyle Fractures

Rana Nabil Nouri; Jonas Sterup Bovin; Hilla Matilda Biermann; Kasper Gosvig; **Morten Jon Andersen, MD**
Copenhagen University Hospital - Herlev and Gentofte, Copenhagen, Denmark

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Nonunions of Surgically-Treated Pediatric Humeral Lateral Condylar Fractures: Risk Factors and Outcomes

Abhishek Tippabhatla; Beltran Torres-Izquierdo; **Laura Bellaire, MD**; Rachel Goldstein, MD; Julia Skye Sanders, MD; Kevin M. Neal, MD; Jaime Rice Denning, MD, MS; Pooya Hosseinzadeh, MD
Washington University in St. Louis, St. Louis, MO, U.S.

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Novel Radiographic Predictors of Diaphyseal Forearm Fracture Malrotation: A Cadaveric Analysis

Samuel Renfro; Alexander Dan-Fong Li; Kelly Hogan; Andrew Henebry; Mark Katsma, DO; **Vanna Rocchi, DO**
Naval Medical Center Portsmouth, Portsmouth, VA, U.S.

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Operative versus Nonoperative Treatment of Displaced Proximal Humerus Fractures in Adolescents: Results of a Prospective Multicenter Study

Beltran Torres-Izquierdo; Abhishek Tippabhatla; Keith D. Baldwin, MD; V. Salil Upasani, MD; Julia Skye Sanders, MD; Rachel Goldstein, MD; Jaime Rice Denning, MD, MS; Claire Schaibley; **Pooya Hosseinzadeh, MD**
Washington University in St. Louis, St. Louis, MO, U.S.

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Opioid Prescription Patterns 30 Days After Pediatric Supracondylar Humerus Fracture Closed Reduction and Percutaneous Pinning

Jack Haglin, MD; David Deckey; Tony Gaidici; Daniel Gaines; Judson W. Karlen, MD; **Jessica Davis Burns, MD, MPH**
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Orthopedic Fixation of Skeletally Immature Ankle Fractures in Children and Adolescents Using Bio-Integrative Implants

Evan McNall; Mark E. Solomon; Joslin Lashay Seidel; Hannah Schneiders; **David Lin, MD**; ORIF Ankles
The Pediatric Orthopedic Center, Cedar Knolls, NJ, U.S.

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Pediatric Patients who Sustain Gunshot Wound Related Fractures are at Higher Risk of Developing Addiction and Psychiatric Disorders

David Momtaz; Rishi Gonuguntla; Mehul Mittal; Beltran Torres-Izquierdo; **Pooya Hosseinzadeh, MD**
Washington University in St. Louis, St. Louis, MO, U.S.

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Pediatric Talar Neck Fractures Outcomes and Complications - a 20-Year Review

Shrey Nihalani; Adele Bloodworth; **Michael J. Conklin, MD**; Philip Ashley, MD
University of Alabama at Birmingham, Birmingham, AL, U.S.

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Please Don't X-ray My Healed Fracture! Utility of Repeat Radiographs During Treatment of Pediatric Diaphyseal Clavicle Fractures

Robert William Gomez; David Jessen; Morgan Storino; Zachary John Lamb; **Dustin A. Greenhill, MD**
St. Luke's University Health Network, Bethlehem, PA, U.S.

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Polymer-based Biodegradable Implants Can Be Used Safely Instead of K-wires and Screws in Pediatric Trauma - an Experience of 495 Children and 12 Years

Marcell Benjamin Varga; Gergo Józsa; Tamás Kassai; Zsófia Krupa
Manninger Jenő Baleseti Központ, Budapest, Hungary

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Radiographic Predictors of Displacement in Transitional Ankle Fractures: Can We Avoid a CT Scan on All Patients?

Luke Sang; Alex H. Youn; Katherine E. Bach; Steven M. Garcia; **Ishaan Swarup, MD**
UCSF Benioff Children's Hospital, Oakland, CA, U.S.

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Rolling Up the Sleeve: Patient Characteristics and Postoperative Outcomes of Surgically Treated Inferior Pole Patellar Sleeve Fractures

Vineet Desai; Christopher John DeFrancesco, MD; Joseph Yellin, MD; **Brendan Williams, MD**
Children's Hospital of Philadelphia, Philadelphia, PA, U.S.

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Soft Tissue Swelling on Anterior Posterior Radiograph Predicts Subsequent Displacement of Lateral Humeral Condyle Fractures

Peng Huang; Si Heng Sharon Tan; Chloe Chan; Andrew Lim; **James Hoi Po Hui, FRCSE**; Bo Ning
National University Health System, Singapore, Singapore

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The Alarming Trends in the Epidemiology and Risk factors of Non-Accidental Fractures in Children

Soroush Baghdadi, MD; David Momtaz; Beltran Torres-Izquierdo; Daniel Pereira; Mehul Mittal; Rishi Gonuguntla; **Pooya Hosseinzadeh, MD**
Washington University in St. Louis, St. Louis, MO, U.S.

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The Effects of Atypical Fracture Morphology on the Need for Open Reduction in Pediatric Supracondylar Humerus Fractures

Bartu Sarisozen, MD; Cenk Ermutlu; **Yücel Bilgin**; Saltuk Bugra Güler; Ishak Sayan
Bursa Uludag University, Bursa, Turkey

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There is No Role for Isolated Closed Reduction in Displaced Proximal Humerus Fractures in Adolescents: Results of a Prospective Multicenter Study

Beltran Torres-Izquierdo; Abhishek Tippabhatla; Keith D. Baldwin, MD; V. Salil Upasani, MD; Julia Skye Sanders, MD; Rachel Goldstein, MD; Jaime Rice Denning, MD, MS; Claire Schaibley; Pooya Hosseinzadeh, MD
Washington University in St. Louis, St. Louis, MO, U.S.

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Trampoline-Related Fractures in 1063 Consecutive Children and Adolescents

Roope Parviainen; Topi Aaretti Laaksonen, MD; Jaakko Sinikumpu; Matti Mikael Ahonen
New Children's Hospital, HUS, Helsinki, Finland

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Underdiagnosis of Pediatric Lateral Ankle Avulsion Injuries: An Ultrasound Study

Jacob Jones; Cassidy Schultz; Bobby Van Pelt; Caroline Podvin; Jane Soyeun Chung; Shane Miller; Charles Wyatt, NP; Benjamin Johnson; Henry Bone Ellis, MD; Philip Wilson, MD
Scottish Rite for Children, Dallas, TX, U.S.

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Understanding the Impact of Family Member Presence during Pediatric Forearm Fracture Reductions in the Emergency Department

Elizabeth Wacker, MD; Paige Gloster; Wendy Ramalingam, MD
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, U.S.

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Utility of Follow-Up X-ray in Type 1 Supracondylar Humerus Fracture

Shrey Nihalani; Adele Bloodworth; Katie Frith; Philip Ashley, MD; Kevin Williams; Michael J. Conklin, MD
University of Alabama at Birmingham, Birmingham, AL, U.S.

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Who Should See My Child? Differences Between Pediatric and Non-Pediatric Orthopedic Specialists During Treatment of Pediatric Diaphyseal Clavicle Fractures

Robert William Gomez; Morgan Storino; David Jessen; Zachary John Lamb; Dustin A. Greenhill, MD
St. Luke's University Health Network, Bethlehem, PA, U.S.

★ Nominated for Best ePoster

POGO: Delivering Orthopaedic Care after Disasters or in Austere Environments – Challenges and Needs

95 Minutes

Chairs: Elhanan Bar-On, MD, MPH; Corey Gill, MD; Ignacio Sanpera, Sr.; and Christopher Souder, MD

This year's Pediatric Orthopaedic Global Outreach Symposium focuses on the practice of Orthopaedics in austere environments resulting from conflict, natural disaster, or lack of resources. A variety of experts will discuss their experiences in three regions around the globe: Ukraine, Haiti, and Sub-Saharan Africa. This will be followed by a panel discussion highlighting the perspectives of surgeons with experience working in under-resourced environments. The program will conclude with an introduction of POGO scholars and presentation of their research projects.

Introduction

Corey Gill, MD

Orthopaedics in Haiti: Challenges and Opportunities in a War Zone (POSNA Member Perspective)

Scott Nelson, MD

Orthopaedics in Haiti: Challenges and Opportunities in a War Zone (Local Perspective)

Archelus Isaac, MD

Treating and Training Pediatric Orthopaedics in Sub Saharan Africa - Challenges and Solutions (EPOS Member Perspective)

Elhanan Bar-On, MD, MPH

Treating and Training Pediatric Orthopaedics in Sub Saharan Africa - Challenges and Solutions (Local Perspective)

Mesfin Kassahun, MD

Pediatric War Injuries: A Review of Our Experience

Anatolii F. Levytskyi, MD

Panel Discussion

Corey Gill, MD; Archelus Isaac, MD; Elhanan Bar-On, MD, MPH, Mesfin Kassahun, MD; and Valentyn Rogozynskiy, MD

Introduction of POGO Scholars

Alvin Su, MD

Developing Screening Guidelines for DDH and CP Hip Displacement in India

Alaric Aroojis, MS (Ortho), D'Ortho, DNB (Ortho)

Cast Wedges in Pediatric Fractures

Andres Ferreyra, MD

Results of Hemiepiphysiodesis for Genu Valgum Using PET Screws

Tara Nagda, MD

Management Outcomes of Congenital Pseudarthrosis of the Tibia at a National Orthopaedic Hospital in Nigeria

Emeka Izuagba, MD

Does Prophylactic Pinning Affect the Proximal Femur Morphology in Slipped Capital Femoral Epiphysis?

Venkatadass Krishnamoorthy, MD

POPS: The Scoliosis Patient Experience

85 Minutes

Chairs: Katie Carpenter, APRN and Nicole Tweedy, APRN

This symposium hopes to educate attendees regarding the path of the adolescent idiopathic scoliosis patient as they navigate throughout the practice. We outline the popular topics that families come into clinic talking about, as well as how to approach discussion of the latest surgical treatments. Surgical efficiency and safety updates will then be highlighted, and lastly, we will discuss how providers and surgeons can work to develop their own pathways for enhanced recovery.

Introduction

Katie Carpenter, APRN

Clinic Appointment for Mild/Moderator AIS: Non-operative Treatment Options

K. Aaron Shaw, DO, FAAOS

Effective Communication Strategies for Discussion About Bracing and Surgery

Whitney Herge, PhD

Time for Surgery: What are My Options for AIS Discussion?

John T. Anderson, MD and Daniel Hoerneschmeyer, MD

Heading to the OR: Surgical Efficiency and Safety Practices

Patrick Cahill, MD

Time to Recover: Developing an ERAS Pathway for your Facility

Nicole Tweedy, APRN

Importance of APRN in Spine Practice

Anne Stuedemann, APRN

Research Symposium

90 Minutes

Chairs: Jennifer Laine, MD; Noelle Larson, MD; and Christian Wong, MD, PhD

Multicenter, collaborative research is essential to advance pediatric musculoskeletal health. This combined EPOS/POSNA virtual symposium features leaders of key multicenter studies and study groups from both sides of the Atlantic. These clinical research leaders will highlight updates from their current prospective work and discuss the challenges of running multicenter studies. They will inform approaches to study methodology and infrastructure, as well as look ahead to the potential of future international collaboration and research translation. Individual presentations will be followed by a roundtable question and answer session with questions from both the EPOS and POSNA Research Committees.

Introduction

Jennifer Laine, MD

Pediatric Orthopedic RCTs in the UK

Daniel Perry, FRCS (ORTH)

Lessons learned from Global Hip Dysplasia Study Group

Kishore Mulpuri, MBBS, MHSc, FRCSC

Update on Orthopedic and Trauma Research

César García Fontecha, MD, PhD

Pediatric Spine Study Group

Tricia St. Hilaire, MPH

What's New in Research for Neuromuscular Patients

Elke Viehweger, Prof. MD, PhD

Pediatric Research in Sports Medicine

Mathew Milewski, MD

Roundtable and Q&A

Wrap-Up

Christian Wong, MD, PhD

Pediatric Trauma Over the “Borders” of the Atlantic

75 Minutes

Chairs: Abby Howenstein, MD; Nicolas Lutz, MD; Sara Van Nortwick, MD; and Melinda Witbreuk, PhD

This symposium discusses the management of various pediatric trauma situations and fractures from both sides of the Atlantic. The focus is on the “tweener” group and injuries where decision making can be challenging.

Introduction

Sara Van Nortwick, MD

Teen Proximal Humerus Fracture Conservative: Are There Borders?

Jessica McQuerry, MD and Federico Canavese, MD

Teen Supracondylar Fracture: The Border Where to Pin

Abby Howenstein and Morten Jon Andersen, MD

Femoral Neck Fracture: When to Cross the Border (Growth Plate)

Kristen Nathe, MD and Marta Salom, MD, PhD

Tibia Shaft Fractures: When Is It Appropriate to Rigid Nail?

Karen Bovid, MD and Wouter H. Nijhuis

Humerus Lateral Condyle Fractures: US/MRI/Arthrogram - Is It Different Over the Border?

John Vorhies, MD and Ignacio Sanpera, Sr.

Complex Hip Dislocations Without Borders

Patrick Bosch, MD and Cristina Alves, MD, MSc, FEBOT

Pelvic Fractures: What's the Border to Operate?

Sara Van Nortwick, MD and Salih Marangoz, MD, FEBOT

2023 RESEARCH GRANT WINNERS

ANGELA S.M. KUO MEMORIAL AWARD

Eric Fornari, MD — \$50,000

Psychological Assessment of Scoliosis Patients Undergoing Surgery (PASS)

Albert Einstein College of Medicine, Bronx, New York

ARTHUR H. HUENE MEMORIAL AWARD

Woody Sankar, MD — \$30,000

Contrast-Enhanced Ultrasound to Evaluate Femoral Head Perfusion in DDH

The Children's Hospital of Philadelphia, Philadelphia, PA

ST. GILES YOUNG INVESTIGATOR AWARD

Michael Patrick McClincy, MD — \$30,000

Evaluation of Capsular Impact on Hip Biomechanics Under Physiologic Loading

Gillette Children's-Minneapolis

POSNA RESEARCH GRANTS (3)

Allen Kadado, MD — \$30,000

Sensitivity, Specificity, and Accuracy of Dynamic Spinal Cord Mapping

The Research Institute at Nationwide Children's Hospital, Columbus, Ohio

Richard Schwend, MD — \$30,000

Why Do Patients with SCFE Have Increased Mortality and Morbidity?

The Children's Mercy Hospital, Kansas City, Missouri

Alexandre Arkader, MD — \$30,000

Genetic Profiling in Multiple Hereditary Exostosis

The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania

POSNA RESEARCH START-UP GRANT

Daniel Gregory, MD — \$10,000

Wearable Sensors for Gait Surveillance in Children with Cerebral Palsy

Shriners Hospitals for Children, Boston, Massachusetts

POSNA REGISTRY GRANT (3-YEAR GRANT - YEAR 2 OF 3)

Anthony Philip Cooper, FRCS, MBChB — \$148,900 total (Year 1 \$49,600)

International Limb Differences Registry

University of British Columbia, Vancouver, BC, Canada

CLINICAL TRIAL PLANNING GRANT

Mohan Belthur, MD — \$30,000

Screw Vs. K-wire Fixation for Pediatric Lateral Condyle Fractures: a RCT

Phoenix Children's Hospital, Phoenix, Arizona

ROSHEN N. IRANI RESEARCH GRANT

Rachel Thompson, MD — \$20,000

The Role of Social Determinants in Return-to-Activity Following Fractures

The Regents of the University of California, Los Angeles, California

ROSHEN N. IRANI RESEARCH TRAINING GRANTS (2)

Madeleine Jackson, MD — \$10,000

Relationship of Perigenicular Ligaments and the Physeal Perichondral Ring

The Regents of the University of California, San Diego, California

Taylor R. Johnson, MD — \$10,000

SET Screws: A Novel Approach to Anterior Spinal Growth Modulation

The Board of Trustees of the Leland Stanford Junior University, Palo Alto, California

POSNA QSVI GRANTS (2)

Maryse Bouchard, MD, MSc, FRCSC — \$12,998.14

Improving Regional Anesthesia for Foot Surgery in Children with CMT

The Hospital for Sick Children, Toronto, Ontario, Canada

Jason B. Malone, DO — \$14,992

The Utilization of Ultrasound to Diagnosis Pediatric Elbow Fractures

Nemours Children's Hospital, Orlando, Florida

2023 SPRING MICRO GRANT WINNERS

Joshua Abzug, MD — \$1,000 (Funded by CurveBeam AI)

Using a Music Glove as a Tool for Hand Rehabilitation

University of Maryland School of Medicine, Baltimore, Maryland

Maryse Bouchard, MD, MSc, FRCSC — \$1,000 (Funded by Miach Orthopaedics)

Exposure to Community Pediatric Orthopaedics in Canadian Residency Training

The Hospital for Sick Children, Toronto, Canada

Lindsay Crawford, MD — \$1,000 (Funded by PediTST)

Effect of Sleep in Adolescents on Bone Healing Evaluated by Range of Motion

The University of Texas Health Science Center at Houston, Houston, Texas

Ryan Katchky, MD — \$1,000 (Funded by PediTST)

Developing an Outpatient Surgical Pathway for Paediatric Orthopaedic Trauma

The University of Western Ontario, Ontario, Canada

Collin May, MD, MPH — \$998.40

Posttraumatic Stress after Limb Lengthening/Deformity Correction Surgery

Boston Children's Hospital, Boston, Massachusetts

Susan A. Novotny, PhD — \$1,000

Why Adults with Child-onset Conditions Decline Research Participation?

Gillette Children's Specialty Healthcare, St. Paul, Minnesota

Gabrielle Rauls, BS — \$925

PI: Sara van Nortwick (POSNA mbr)

Radiation Exposure of Pediatric Orthopedic Operating Room Staff

Medical University of South Carolina, Charleston, South Carolina

Apurva S. Shah, MD, MBA — \$1,000

Functional Outcomes of Upper Limb Differences Registry: CRUS

The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania

Margaret Wright, MD — \$1,000

"How Do I Get Back on the Field?" ACL Reconstruction Educational Videos

Nicklaus Children's Hospital, Miami, Florida

2023 FALL MICRO GRANT WINNERS

Varun Arvind, MD, PhD — \$1,000

Understanding the Role of Tendon in Neuromuscular Contracture
Columbia University Medical Center

Matthew Dow, MD — \$1,000

Comparing Outcomes in Pediatric Flatfoot Reconstructions
Medical University of South Carolina

Mininder Kocher, MD, MPH — \$1,000

Post-Operative Video Instructions for Paediatric Sports Medicine Patients
Boston Children's Hospital

Luis Torres-Gonzalez, MS — \$1,000

Intrathecal Baclofen Pump on Outcomes of Spinal Fusion in Cerebral Palsy
Gillette Children's Specialty Healthcare

Arianna Trionfo, MD — \$1,000

Validation of a Low-Cost "Pool Noodle" Cast Removal Training Mode
Nemours Children's Hospital, Delaware

Shiraz Younas, MD — \$1,000

Posterior Spinal Fusion Models in Adolescent Idiopathic Scoliosis Patients
McGovern Medical School at the University of Texas Health Sciences Center

POLICIES

LANGUAGE

English is the official language of the 2024 Combined EPOSNA Meeting.

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Smoking is not permitted during any meeting or event.

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J-180	Alex and Ani
J-178	Brackish Waters
L-142	Carhartt
L-160	Cariloha Bamboo
J-172	Comfort One Shoes
K-171	Community Love
L-160	Del Sol Color Change
J-164	Faith2Felicity
L-153	House of JonLei Atelier
L-138	Miguel Wilson Collection
A-189	ZAAF

FAST CASUAL DINING

K-161	BurgerFi
B-158	Chipotle Mexican Grill
B-156	Mason's Famous Lobster Rolls
N Cove	McDonald's
D-144	Mezeh Mediterranean Grill
K-191	Nando's Peri-Peri
L-150	PrimoHoagies
D-146	Potbelly Sandwich Works
N Cove	Subway (at Sunoco)

SPECIALTY FOOD & BEVERAGE

B-138	Ben & Jerry's
4	Flight Deck
A-185	Furlough Cheesecake
A-181	Georgetown Olive Oil Co
D-150	It'Sugar
D-141	Panda Tea House
L-120	Pepper Palace
L-180	Potomac Gourmet Market
L-140	Savannah's Candy Kitchen
A-167	Starbucks

DINING & ENTERTAINMENT

P-172	Bobby McKey's
	Dueling Piano Bar
D-149	Bond 45
P-164	Brass Tap
K-177	Brother Jimmy's BBQ
P-186	Cadillac Ranch
K-141	Capital Wheel Business Center
R-230	Escapology COMING SOON
B-152	Fiorella Italian Kitchen
E-141	Fogo de Chão COMING SOON
J-188	Grace's Mandarin
K-177	Irish Whisper Pub
E-145	McCormick & Schmick's
M-122	Muse Paintbar
J-199	Public House
C-155	Redstone American Grill
B-153	Rosa Mexicano
J-186	SUCCOTASH
E-137	Sunset Room
R-200	Tom's Watch Bar COMING SOON
K-152	Walrus Oyster & Ale House

PERSONAL CARE & SERVICES

L-120	Bella Cosmetic Surgery
D-145	BrookieGirl
Q-162	CVS Pharmacy
L-141	Divine Nail Spa
K-181	Girlkin Lashes
K-161	Harbor Cleaners
Q-221	Precision Orthopedic
L-125	Harborside Surgery Center
B-168	Marina Office
S-201	Medical Pavilion
M-128	Roll by Goodyear
N Cove	Sunoco
L-145	The UPS Store

GIFTS & HOME GOODS

A-177	AMERICA!
A-173	Build-A-Bear Workshop
K-131	Corinto Gallery
K-121	MahoganyBooks
K-162	PGAHC Arts'tination
L-170	Sticky Situation COMING SOON

RESIDENTIAL

R-250	The Esplanade
S2	The Flats Sales Office
K-157	Fleet Street
W-145	The Haven
L-155	One National Harbor
	Potomac Overlook
D	Waterfront Street Condos

HOTELS

K-156	AC Hotel by Marriott
	• AC Lounge
G	Gaylord National Resort & Convention Center
	• Belvedere Lobby Bar
	• Old Hickory Steakhouse
	• Relache Spa
O-250	Hampton Inn & Suites
F-123	Hyatt Place
NH	MGM National Harbor
	• Diablo's Cantina
	• Ginger
	• National Market
	• Tap Sports Bar
	• Voltaggio Brothers Steak House
H-192	Residence Inn
A-171	The Westin
	• Sauciety
Q-250	Club Wyndham National Harbor

POSNA MEMBERSHIP INFORMATION

The Pediatric Orthopaedic Society of North America (POSNA) is a not-for-profit professional organization of over 1,500 surgeons, physicians, and allied health members passionately dedicated to advancing musculoskeletal care for children and adolescents through education, research, and quality care.

Mission: To advance pediatric orthopaedics by promoting education, research, and quality care.

Vision: A world with optimal musculoskeletal health for all children.

Become a POSNA Member and Advance Your Pediatric Orthopaedic Career!

Applications for 2025 membership open in June 2024 at [POSNA.org](https://posna.org).

POSNA members benefit from a robust and diverse array of resources that advance and fulfill the society's commitment to education, research, and quality care. There are excellent opportunities to forge enduring professional relationships and mentorship. Many members utilize the POSNA platform and its collegial network of colleagues to develop innovative, multi-institution, and multi-national programs.

BENEFITS

With a culture that is committed to embracing diversity, inclusion, and equity for POSNA members, we offer unparalleled access for all to the following range of benefits:

- Reduced registration fees for Annual Meeting and International Pediatric Orthopaedic Symposium (IPOS®)
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- Participate in the POSNA-Sponsored Traveling Fellowship Program
- Reduced subscription rate to the Journal of Pediatric Orthopaedics
- Become a mentor or mentee through the Mentorship Program
- Be a part of the POSNA Safe Surgery Program (PSSP)

ADDITIONAL EDUCATION:

- POSNA.org Study Guide – over 100 topics available!
- JPOSNA® - The official Journal of POSNA. Now accepting original research submissions
- POSNAcademy - POSNA's video education platform featuring webinars, tutorials, past meeting content, podcasts, and more!
- The Resident Review blog

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The European Paediatric Orthopaedic Society (EPOS) is a distinguished not-for-profit association dedicated to advancing the field of pediatric orthopaedics through education, research, and patient care. EPOS serves as a vital platform for orthopaedic professionals, researchers, and practitioners to collaborate, share knowledge, and drive innovation in the specialized domain of paediatric musculoskeletal health. By fostering a global network of experts and facilitating educational initiatives, EPOS plays a pivotal role in improving the quality of care and outcomes for young patients with orthopaedic conditions.

Mission: Elevating the standard of care for children with orthopaedic conditions.

Vision: Enhancing collaboration among pediatric orthopaedic experts, fostering educational advancement, and facilitating the dissemination of innovative knowledge.

WHY JOIN EPOS?

- EPOS serves as Europe's central hub, uniting providers of pediatric orthopaedic care to exchange expertise and collectively learn.
- We firmly believe that this collaboration is pivotal in fostering a comprehensive understanding and advancing the treatment of pediatric orthopaedic ailments. The annual EPOS gatherings offer an exceptional forum for global experts to connect and facilitate the exchange of cutting-edge insights in our field.
- Our esteemed international faculty imparts profound knowledge through our comprehensive educational programs, catering to both basic and advanced levels. Additionally, our open-access journal of children's orthopaedics publishes exceptional research with a significant impact.
- As an international network of specialists, our mission is centered around elevating the quality of care for children with orthopaedic conditions.
- Similar to any other society, our success heavily relies on the active participation of our members in achieving our ambitious objectives. Therefore, EPOS warmly welcomes all peers with a vested interest in pediatric orthopaedics to join our society.

WEBSITE:

<https://www.epos.org/>