





# Research. Innovation. Performance.

At Children's Hospital Colorado, we push ourselves and the sports medicine field to new levels of performance. Our relentless focus on research and innovation drives game-changing technological advancements, critical discoveries, new techniques and treatments, and more.



**Top 10** 

Children's hospital in the nation

#1

Children's hospital in Colorado and the region BEST CHILDREN'S HOSPITALS USNEWS

In ac

\$3.6M

In active NIH funding for sports medicine research



Learn more about our research at childrenscolorado.org/ OrthoResearch

### Welcome to Colorado!

We are delighted to have you join us for the 10th annual Pediatric Research in Sports Medicine meeting in Denver!

This year's scientific program features the presentation of more than 200 original abstracts as podium, poster and ePosters, representing diverse and innovative contributions to important topics in pediatric sports medicine. In addition to extraordinary scientific research sessions, PRiSM's 10th Annual Meeting will feature an outstanding keynote speaker who brings a unique perspective to pediatric sports medicine and unites all disciplines. Aligned with our mission, the annual meeting offers the opportunity to strengthen existing relationships and build new relationships with multidisciplinary attendees inside and outside of your profession who work to advance research and clinical practice, and most importantly, improve outcomes for our pediatric patients. One focus of the planning committee this year was to provide more opportunities for members to network and collaborate, embracing the true multidisciplinary nature of the meeting. In addition, this year's meeting offers an instructional course discussing international perspectives in pediatric sports medicine research, further expanding our diversity.

Highlights of the meeting include seven instructional courses, two lunch and learn sessions, two innovative networking sessions, and ninety podium abstract presentations. Our objective in creating the scientific program for the 2023 annual meeting was to embrace and leverage the diversity in our membership through relationship building to bring the PRiSM membership a step closer to achieving excellence in pediatric sports medicine research. Each year, the quality of the research submitted to the meeting increases and this year was no exception. This meeting would not be possible without all of the hard work, commitment, and enthusiasm to advancing the world of pediatric sports medicine by each of you, and for that, we Thank You! We hope you enjoy this year's offerings, develop meaningful and collaborative relationships, and spend some time exploring Denver. We truly look forward to seeing you at the meeting!

Your 2023 Scientific Program Committee Chairs,

Jay Albright, MD & Lauren Butler, PT, DPT, SCS

### Welcome

The PRiSM 10<sup>th</sup> Annual Meeting is designed to provide high-quality dissemination of information in the basic sciences, prevention, diagnosis, treatment, and technological advances in the multi-disciplinary areas of sports medicine for children and adolescents. The Scientific Program Committee worked hard to provide a diverse, innovative and well-rounded program that incorporates feedback from previous Annual Meetings. As a result, we are pleased to offer you three full days of multidisciplinary education, engaging experts in the field of pediatric sports medicine, and collaboration opportunities.

### PRISM Mission

The purpose of PRiSM is to lead interdisciplinary research, education and advancement in pediatric and adolescent sports medicine.

## Target Audience

The target audience for the PRiSM 10<sup>th</sup> Annual Meeting includes athletic trainers, physical therapists, mid-level providers, radiologists, sports medicine providers, orthopedic surgeons, orthotists, rehab engineers, kinesiologists, nutritionists, educators, administrators, researchers, and all others concerned with pediatric and adolescent sports medicine.

## Annual Meeting Objectives

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

- Discuss the diagnosis & multidisciplinary management of common pediatric and adolescent sports related injuries.
- Establish treatment guidelines and algorithms for working with childhood athletes and their families.
- Examine multiple evidence based approaches to treating pediatric sports concerns.
- Explore clinical approaches to the injured athlete throughout their continuum of care.
- Evaluate effective ways to improve patient care and reduce lifelong sequelae of sports injuries.



## Meeting at a Glance

Weeting a	t a Glance
THURSDAY, F	EBRUARY 2, 2023
8:00am - 12:00pm	Precourse: Performance Training from the Playground to the Olympic Stage: Specialization is Not the Problem
12:30 - 1:30pm	RIGs Meeting 1
1:45 - 2:45pm	RIGs Meeting 2
3:00 - 4:00pm	RIGs Meeting 3
4:15 - 5:15pm	RIGs Meeting 4
5:15 - 5:30pm	Cocktail Break
5:30 - 6:30pm	Complex Cases
7:00 - 8:00pm	Networking Reception
FRIDAY, FEBI	RUARY 3, 2023
7:00 - 8:00am	Breakfast
7:30 - 8:00am	PRiSM Membership Business Meeting
8:00 - 8:15am	Sponsor Highlight: Colorado Children's Hospital
8:15 - 9:00am	Student/Trainee Travel Grant Awards
9:00 - 9:15am	Break
9:15 - 10:15am	Instructional Course 1: Motion Capture Technology for RTP Decision-Making: What's the hold up?
	Instructional Course 2: That outside and backside: Structural vs non-structural issues about the lateral and posterior hip
10:15 - 11:00am	Scientific Session 1: ACL Surgery
	Scientific Session 2: Diversity
11:00am - 12:00pm	Poster Session
12:00 - 1:15pm	Lunch
12:15 - 1:15pm	Lunch & Learn 1: Creating a Screening Toolbox: What, why, how, and who's going to pay for it?
	Committees (3)
1:15 - 2:00pm	Scientific Session 3: Upper Extremity 1
	Scientific Session 4: Concussion 1
2:00 - 2:45pm	Scientific Session 5: ACL 1
	Scientific Session 6: Upper Extremity 2
2:45 - 3:00pm	Break
3:00 - 3:45pm	Scientific Session 7: Injury Prevention/Specialization
	Scientific Session 8: Meniscus and Knee
3:45 - 4:30pm	Scientific Session 9: Concussion 2
	Scientific Session 10: Female Athlete & Mental Health
4:30 - 4:45pm	Cocktail Break
4:45 - 5:45pm	Musical Mingling
5:45 - 6:30pm	Networking Reception
SATURDAY, F	EBRUARY 4, 2023
7:00 - 7:30am	Breakfast
7:30 - 8:00am	PRiSM Awards and Gavel Exchange
8:00 - 8:45am	Keynote: Brian Cook, MD - Eating Disorders in Pediatric Sports Medicine
8:45 - 9:00am	Break
9:00 - 10:00am	Top 10 Poster Session
	Poster Session Viewing
10:00 - 10:45am	Scientific Session 11: ACL 2
	Scientific Session 12: Hip
10:45 - 11:45am	Instructional Course 3: Pediatric Sports Medicine Research Around the World: International Perspectives
11:45am - 1:00pm	Lunch
12:00 - 1:00pm	Lunch & Learn 2: The Youth Climber: Medical, Rehabilitative, and Training Considerations
,	Committees (3)
1:00 - 2:00pm	Instructional Course 4: Evidenced-Based Treatment for Baseball and Softball Players
•	Instructional Course 5: Building Athletes for Life: Sports Medicine Professionals as Champions of Physical Literacy Development
2:00 - 2:15pm	Break
2:15 - 3:15pm	Instructional Course 6: Caring for the Pediatric Runner
•	Instructional Course 7: The Team Approach: Care of the Child and Adolescent
3:15 - 4:00pm	Scientific Session 13: Meniscus
•	Scientific Session 14: Patella Instability
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Print program information is up to date as of 1/10/22. Presenters are subject to change.

### Continuing Education (CE) Language

# PEDIATRIC RESEARCH IN SPORTS MEDICINE SOCIETY PRISM 10TH ANNUAL MEETING

Live: February 2 – 4, 2023 Enduring: February 5, 2023 – February 5, 2023 Denver, CO

#### JOINT ACCREDITATION STATEMENT



INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, this activity has been planned and implemented by Amedco LLC and Pediatric Research in Sports Medicine (PRISM). 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.

#### PHYSICIANS (ACCME) CREDIT DESIGNATION

Amedco LLC designates this live to enduring activity for a maximum of **14.0 live** activity/ **18.50 enduring material** *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### **NURSES (ANCC) CREDIT DESIGNATION**

Amedco LLC designates this activity for a maximum of **14.0 live activity/ 18.50 enduring material** ANCC contact hours.

#### ATHLETIC TRAINERS (BOC) CREDIT DESIGNATION

Amedco (BOC AP#: 4008163) is approved by the Board of Certification, Inc. to provide continuing education to Athletic Trainers (ATs). This program is eligible for a maximum of **14.0 live activity/ 18.50 enduring material** Category A hours/CEUs. ATs should claim only those hours actually spent in the educational program.

#### PHYSICAL THERAPY BOARD OF CALIFORNIA (CA PT)

This course has been submitted for review to the Physical Therapy Board of California. No determination of creditworthiness has yet been made and, if approved, total credits may vary from other boards.

# NEW JERSEY STATE BOARD OF PHYSICAL THERAPY EXAMINERS (NJ PT)

This course has been submitted for review to the New Jersey State Board of Physical Therapy Examiners. No determination of creditworthiness has yet been made and, if approved, total credits may vary from other boards.

# OHIO OCCUPATIONAL THERAPY, PHYSICAL THERAPY AND ATHLETIC TRAINERS BOARD (OTPTAT)

This course has been submitted for review to OTPTAT. No determination of creditworthiness has yet been made and, if approved, total credits may vary from other boards.

# PENNSYLVANIA STATE BOARD OF PHYSICAL THERAPY (PA PT)

This course has been submitted for review to the Pennsylvania State Board of Physical Therapy. No determination of creditworthiness has yet been made and, if approved, total credits may vary from other boards.

#### TEXAS PHYSICAL THERAPY ASSOCIATION (TX PT)

This activity has been submitted for review to the Texas Physical Therapy Association. No determination of creditworthiness has yet been made and, if approved, total credits may vary from other boards.

States with reciprocity with Texas Physical Therapy Association: AL, AK, AZ, CT, DE, GA, HI, ID, IN, IA, KS, KY, LA, ME, MA, MI, MN, MI, MS, NE, NH, NC, ND, OR, RI, SC, SD, TN, UT, VT, VA, WA, WI, WY-updated 02/18



HYATT REGENCY DENVER

### Acknowledgements

The **Pediatric Research in Sports Medicine Society** would like to thank the following organizations for their generous support of PRiSM and 10<sup>th</sup> Annual Meeting...







# Smith Nephew



Children's Orthopedic and Sports Medicine Center

### Exhibitors

We would like to thank all of the companies for exhibiting at PRiSM's 10th Annual Meeting. Exhibits are located in Centennial Foyer area. These companies and organizations help to make our Annual Meeting possible, and we encourage you to visit the exhibits. A listing of all exhibitors will be provided on-site.

#### Announcements

#### **CELL PHONES**

As a courtesy to others, please silence your mobile devices during all presentations.

#### **INTERNET ACCESS**

Complimentary internet is available throughout the conference center and hotel.

Network: PRISM

Password: 10THAM23

#### **MEALS**

Breakfast and lunch will be provided on Friday, February 3rd and Saturday, February 4th in Centennial F/G/H with additional seating in Mineral ABC

#### MUSICAL MINGLING - FRIDAY, FEBRUARY 3

Join us for a fun hour of networking set to the theme of musical chairs! During this event you will have the opportunity to engage in several short conversations with multidisciplinary teams on a variety of hot topics in pediatric sports medicine. Just like musical chairs, when you hear the music you will have one minute to find a new seat!

### NETWORKING RECEPTION – THURSDAY, FEBRUARY 2 AND FRIDAY, FEBRUARY 3

The networking receptions will be held throughout the conference space, including Centennial Ballroom Foyer, Centennial F/G/H, and Mineral A/B/C from 6:30-7:30pm. Participants will have a chance to speak with colleagues, exhibitors and poster presenters.

# REGISTRATION DESK HOURS – CENTENNIAL BALLROOM FOYER

Thursday, February 2nd – 6:30am-6:00pm Friday, February 3rd – 6:00am – 6:00pm Saturday, February 4th – 6:30am – 12:00pm

#### **OTHER MEETINGS\***

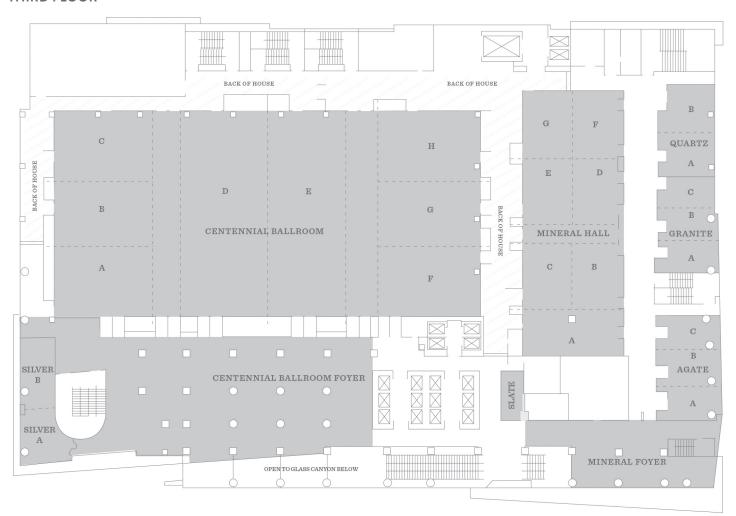
Meeting	Date	Time	Location
ROCK-ROCKET	2/2/2023	8:00am - 12:00pm	Mineral F
SCORES	2/2/2023	5:30 - 6:30pm	Mineral F
PLUT0	2/3/2023	7:00 - 8:00am	Mineral F
SCORES	2/3/2023	7:00 - 8:00am	Mineral D
BCH Sports Medicine	2/3/2023	6:30 - 8:00pm	Offsite

<sup>\*</sup>Meetings are not affiliated with PRiSM

4

# Hyatt Regency Maps

### THIRD FLOOR



5

7:00 - 8:00am

8:00am - 12:00pm

BREAKFAST

Centennial F/G/H
Centennial D/E

#### PRE-COURSE: Performance Training from the Playground to the Olympic Stage: Specialization is Not the Problem

This 4-hour pre-course will be presented by a multi-disciplinary team of physicians, sports scientists, performance coaches, and a teacher from a culturally diverse middle school in New York City. Representing UCLA, Children's Hospital of Philadelphia, USA Track & Field, the United States Soccer Federation, and IMG Academy. All presenters have national or international coaching certifications. The speakers have coached from the youth to the professional level, and most have coached youth athletes through to the professional level. They coached or treated youth athletes of all abilities and socioeconomic backgrounds.

Long-Term Athlete Development (LTAD) strives to not only create elite performers but also create opportunities for all children to become confident, healthy, and active adults. The primary goals of LTAD are the early attainment of physical literacy and the commitment to being "active for life". Physical literacy means to move with competence and confidence through a wide variety of fundamental movements (run, jump, throw, agility, balance coordination, speed, etc.) and is the cornerstone for regular participation in physical activity and excellence in sport. The earlier a child obtains physical literacy, the more likely he/she is to lead an active lifestyle in adulthood.

True athlete development depends on developmentally appropriate training of the 5 Foundational Motor Performance Abilities (MPAs) (strength, speed, endurance, coordination, and flexibility) and the Derived MPAs (made up of various combinations these Foundational MPAs).

We will review the foundational MPAs and the critical derivatives of the foundational motor performance abilities (Derived MPAs). We will dedicate time reviewing the nonlinear development of each of the motor performance abilities, including periods of acceleration and regression.

While we will review early vs late specialization sports and the latest research on "early specialization", we hope to divert the attention away from specialization and towards developmentally appropriate training regardless of whether a participant plays 3 sports, 1 sport, or no sport at all. Appropriate development can be achieved whether an individual "specializes" or not. If one does specialize early, the athlete's young training age dictates they should still be initially focused on general improvement through a traditional periodization model (when indicated). Specialization is not the problem. How we do specialization may be. Attention should be paid to who specializes, expectations of all involved, and who coaches them.

Program Faculty: Jeremy Ng, MD CAQSM; Christine Brooks, PhD; Matt Grady, MD CAQSM FAAP, FAMSSM; Vince Grady, MS; Andy Guard, PhD; and Steffen Visk, CSCS

#### **AGENDA**

#### Part 1 - Laying the Foundation

Welcome

Jeremy Ng, MD CAQSM

The Performance Equation

Jeremy Ng, MD CAQSM

Physical, Cognitive, and Emotional Growth and Maturation

Matthew Grady, MD CAQSM, FAAP, FAMSSM

Maturation of Motor Performance Abilities and Energy Systems

Jeremy Ng, MD CAQSM

Early vs. Late Specialization and Problems with Talent Identification in Youth Athletics

Matthew Grady, MD CAQSM, FAAP, FAMSSM

Q&A/Break 10 min

Establishing Sports Foundations: Motor Skills and the Neuromuscular System *Clive Brewer M.Sc., Fel. UKSCA, CSCS, ASCC, C.Sci,* 

#### Part 2 - Practical Application

Teaching Movement, Skill Acquisition/Development, and Tactics during the Skill Hungry Years Clive Brewer M.Sc., Fel. UKSCA, CSCS, ASCC, C.Sci,

Physical literacy for the rest of us - From the Viewpoint of a Physical Education Teacher *Vince Grady, MS* 

Skill Development Adolescent and Beyond

Steffen Visk, CSCS

Training Load Monitoring

Andy Guard, PhD

Wrap up

Jeremy Ng, MD CAQSM

Q&A 10 min



#### Thursday, February 2, 2023 LOCATION RESEARCH INTEREST GROUPS MEETINGS 12:30 - 1:30pm Rehabilitation Mineral D Spine/Spondylolysis Granite A Injury Prevention Granite B/C Meniscus Quartz A 1:45 - 2:45pm RESEARCH INTEREST GROUPS MEETINGS Shoulder Instability Mineral D Bone Stress Granite A Motion Analysis Granite B/C **Tibial Spine** Quartz A 3:00 - 4:00pm RESEARCH INTEREST GROUPS MEETINGS Female Athlete Mineral D Ultrasound Granite A Granite B/C Hip Disorders Sports Specialization Quartz A 4:15 - 5:15pm RESEARCH INTEREST GROUPS MEETINGS Mineral D Concussion Patellofemoral Instability Granite A Granite B/C Elbow Multi-Ligament Knee Quartz A **COCKTAIL BREAK** Centennial Foyer & F/G/H 5:15 - 5:30pm

**COMPLEX CASES** 

**NETWORKING RECEPTION** 

5:30 - 6:30pm

7:00 - 8:00pm

Centennial Foyer & D/E

Mineral A/B/C

Centennial DE

7:00 - 8:00am **BREAKFAST** Centennial F/G/H 7:30 - 8:00am PRISM MEMBERSHIP BUSINESS MEETING Centennial D/E SPONSOR HIGHLIGHT: COLORADO CHILDREN'S HOSPITAL 8:00 - 8:15am Centennial D/E 8:15 - 9:00am STUDENT/TRAINEE TRAVEL GRANT AWARDS Centennial D/E 8:15 - 8:17am Moderator David Howell, PhD 8:17 - 8:22am Research Update & Literature Highlights - Spine/Spondy Mark Riederer, MD ASSESSING VESTIBULAR, OCULOMOTOR, AND CERVICAL SPINE IMPAIRMENTS AS PREDICTORS OF 8:22 - 8:27am

> 8:27 - 8:32am IDENTIFYING LINKS BETWEEN ATHLETIC IDENTITY AND SPECIALIZATION IN ADOLESCENT ATHLETES M. Minnat Choudhury, MS

READABILITY OF ONLINE PATIENT EDUCATION MATERIALS FOR PEDIATRIC ACL TEARS: CONCERNS 8:32 - 8:37am

FOR HEALTH LITERACY AND OUTCOMES

POST-CONCUSSION GAIT SPEED Katherine Smulligan, PT, DPT

Nicholas Thomas, MS

8:37 - 8:42am BRAIN ADAPTATIONS FROM NEUROMUSCUI AR TRAINING: A PRELIMINARY NEUROIMAGING

INVESTIGATION IN PEDATRIC ATHLETES WITH A HISTORY OF SPORTS-RELATED CONCUSSION

Taylor Zuleger, BS, BA

8:42 - 8:47am SPORT PARTICIPATION LEVELS AMONG NEW YORK CITY'S KIDS REMAIN LOW 18 MONTHS AFTER THE

ONSET OF THE COVID-19 PANDEMIC

Yealeen Jeong (Cordelia Carter, MD)

8:47 - 8:52am ASSOCIATION BETWEEN THE DEGREE OF FOOT-LIMB DOMINANCE AND LOWER LIMB

NEUROMUSCULAR ASYMMETRY IN ADOLESCENT SOCCER PLAYERS

Sarp Sahin

8:52 - 9:00am Discussion

David Howell, PhD

8:15 - 9:00am **BREAK** Centennial F/G/H

#### INSTRUCTIONAL COURSE 1: MOTION CAPTURE TECHNOLOGY FOR RTP DECISION-MAKING: WHAT'S THE HOLD UP? 9:15 - 10:15am

Three-dimensional analysis of human movement utilizing motion capture technology allows for an accurate and objective depiction of kinematics and kinetics the motion of individual body segments, how these segments move in relation to each other, and the way in which forces act upon body segments and joints. Thus, 3D motion capture is an increasingly popular tool for a wide variety of clinical assessments, including diagnostic testing, clinical decision-making, outcome prediction, and treatment management. However, clinical services using motion capture have primarily focused on gait analysis in pediatric patient populations diagnosed with motor disorders. These services rarely exist in a sports medicine clinical setting.

In the sports medicine domain, 3D motion capture has primarily been utilized to optimize athletic performance, develop screening strategies for injury prevention, and identify injury mechanisms that commonly occur during sports and activity. In recent literature, kinematic and kinetic data have been reported to better understand human movement during specific dynamic activities or following sport-specific treatments. For example, biomechanical analyses have informed providers on outcomes following anterior cruciate ligament (ACL) reconstruction and the potential risk for re-injury. Specifically, research in this area has demonstrated that kinematic and kinetic asymmetries are often present following ACL treatment despite acceptable return-to-play (RTP) scores. While recent literature in sports biomechanics has been essential for the treatment of youth athletes, the potential of motion capture is still not maximized in the clinical setting. Numerous barriers to the utilization of more advanced motion analysis technology have been previously reported, including but not limited to the cost of equipment, laboratory space requirements, collection and processing time, difficulty of data interpretation, and the cost of qualified personnel to perform the testing. However, summaries of physician feedback on the utilization of this technology for gait analysis has concluded that the use of motion capture can result in savings of resources given more favorable surgical outcomes, and further, that more advanced movement analysis data may increase a surgeon's level of confidence in a treatment plan.

Therefore, the purpose of this course is to review current RTP evaluations, present how motion capture may be implemented for RTP decision-making, and share the PRiSM sports medicine providers knowledge, attitudes, and perceptions about the clinical usefulness of 3D motion capture assessed through a survey and focus groups.

Sophia Ulman, PhD; Chris Kuenze, PhD ATC; Mia Katzel, PT DPT; Corinna Franklin, MD; and Justin DiSanti, PhD

#### 9:15 - 10:15am

# INSTRUCTIONAL COURSE 2: THAT OUTSIDE AND BACKSIDE: STRUCTURAL VS NON-STRUCTURAL ISSUES ABOUT THE LATERAL AND POSTERIOR HIP

Centennial D/E

Discussion of radiographic evaluation of the adolescent athlete's hip, with a focus on the lateral and posterior hip regions. Our pain specialist will describe various treatment options appropriate for the adolescent athlete with chronic lateral or posterior hip pain, including injections, radio frequency ablations, peripheral nerve stimulation and pharmacological interventions. There will also be demonstration of evidence-based exam techniques for evaluation of the lateral and posterior hip, and participants will have the opportunity to practice manual skills and receive feedback from instructors if desired. We will also review strategies that clinicians can quickly teach patients during their visits for effective independent pain relief.

Zvonimir Bebic, MD; Meredith Dake, PT, DPT, OCS; Laura Neal, PT, DPT, OC; and Stephanie Mayer, MD

#### 10:15 - 11:00am SCIENTIFIC SESSION 1: ACL SUGERY

Centennial D/E

10:15 - 10:17am	Moderator Scott McKay, MD
10:17 - 10:22	Research Update & Literature Highlights – Tibial Spine  JR Cruz, MD, MBA
10:22 - 10:27am	IS THE GREULICH & PYLE BONE ATLAS SUITABLE WHEN MEASURING BONE AGE FOR PEDIATRIC ACL RECONSTRUCTION IN THE MODERN US POPULATION?  Borna Guevel
10:27 - 10:32am	AGE BASED FREQUENCY OF GRAFT AND TECHNIQUE USED IN PEDIATRIC ACL RECONSTRUCTION

10:32 - 10:37am	PERI-OPERATIVE COMPLICATIONS, SAFETY, AND EARLY OUTCOMES OF A NOVEL ACL+ALL
	RECONSTRUCTION TECHNIQUE USING ILIOTIBIAL BAND AUTOGRAFT VS. PATELLAR TENDON ACL
	RECONSTRUCTION: A RETROSPECTIVE PILOT STUDY OF THE SATURN (SKELETALLY-MATURE ACLR

TECHNIQUE USING REINFORCEMENT NETWORK) STUDY GROUP

Benton Heyworth, MD

Emily Niu, MD

10:37 - 10:42am COMPARING SAFETY AND PHYSICAL ACTIVITY PROFILES OF INSTITUTIONAL STANDARD OF CARE

VERSUS ARTHROSCOPIC ELECTROCAUTERY APPROACHES FOR ACL RECONSTRUCTION

Jay Albright, MD

10:42 - 10:47am EARLY CLINICAL OUTCOMES FOLLOWING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION WITH

QUADRICEPS TENDON AUTOGRAFT IN AN ADOLESCENT POPULATION SUGGEST HIGHER RATES OF

ARTHROFIBROSIS WITH BONE-BLOCK THAN ALL SOFT TISSUE.

Mauricio Drummond Junior, MD

10:47 - 10:52am DIFFERENCES IN THE DEVELOPMENT OF ANATOMICAL RISK FACTORS FOR ACL INJURY BETWEEN ACL-

INJURED PATIENTS AND MATCHED CONTROLS

Pratik Pradhan, B.S.

10:52 - 11:00am Discussion

Scott McKay, MD



10:15 - 11:00am SCIENTIFIC SESSION 2: DIVERSITY Centennial A/B/C 10:15 - 10:17am Moderator Stephanie Logterman, MD 10:17 - 10:22am Research Update & Literature Highlights – Sports Specialization Eric Post, PhD, ATC SHARED DECISION-MAKING FOR OPERATIVE VS. NON-OPERATIVE TREATMENT OF CLAVICLE 10:22 - 10:27am FRACUTRES IN ADOLESCENTS BASED ON RACIAL, ETHNIC, AND SEX-BASED DIFFERENCES Nirav Pandya, MD 10:27 - 10:32am DISPARATE IMPACT: HOW DOES SOCIAL DEPRIVATION AFFECT PATIENT REPORTED OUTCOMES FOLLOWING ACL RECONSTRUCTION IN CHILDREN AND ADOLESCENTS? Sara Kiani, MPH THE EFFECT OF INCREASING EXERCISE IN THE INTELLECTUALLY DISABLED COMMUNITY 10:32 - 10:37am Cassidy Foley Davelaar, DO, FAAP, CAQSM 10:37 - 10:42am BARRIERS AND FACILITATORS TO SPORTS PARTICIPATION AMONG YOUTH WITH TRANSVERSE LOWER LIMB DEFICIENCY OR AMPUTATION Mary Dubon, MD 10:42 - 10:47am SECONDARY SCHOOL ATHLETIC TRAINERS' CLINICAL MANAGEMENT DECISIONS TOWARD LOW SOCIOECONOMIC STATUS PATIENTS: A MIXED-METHODS STUDY Mayrena Hernandez, PhD Discussion 10:47 - 11:00am Stephanie Logterman, MD 11:00am - 12:00pm POSTER SESSION Centennial Foyer & F/G/H **Even Number Poster Presenters** 11:00 - 11:30am 11:30am - 12:00pm **Odd Number Poster Presenters** 12:00 - 1:15pm LUNCH Centennial F/G/H 12:15 - 1:15pm LUNCH & LEARN 1: CREATING A SCREENING TOOLBOX: WHAT, WHY, HOW, AND WHO'S GOING TO PAY FOR IT? Centennial DE Public health efforts to increase sports participation as a form of physical activity for children in the United States have been successful over the past decade. Unfortunately, increased injury incidence and prevalence rates have been identified as an unintended consequence of these efforts. While researchers and practitioners have developed of a wide variety of injury prevention strategies for young athletes, there is little data to support the prioritization of risk factors within these strategies. Additionally, risk factor screenings that are inexpensive, accurate, and easily implemented are noticeably lacking in the youth sports domain. What is the purpose of a screening and what are we are looking for exactly? How do we accurately identify welldocumented risk factors? And what do we do when risk factors are identified? Who conducts screenings? And, more importantly, who pays for it? In this course, we will explore answers to these questions, highlight recent findings and accomplishments, and identify existing gaps in the screening process. Sophia Ulman, PhD; Lauren Butler, DPT; Joseph Janosky, DrPHc, MSc, PT, AT; Christy Zwolski, PT, DPT, PhD; Corinna Franklin, MD; and Emily Stapleton, PsyD

12:15 - 1:15pm **COMMITTEE MEETINGS** 

Communications

Research

Education

Granite A

Granite A

Granite A

Granite A

Quartz A

1:15 - 2:00pm	SCIENTIFIC SESSION 1:15 - 1:17pm	3: UPPER EXTREMITY 1  Moderator  Carlos Uquillas, MD	Centennial D/E
	1:17 - 1:22pm	Research Update & Literature Highlights – Elbow Michael Saper, DO, ATC, CSCS	
	1:22 - 1:27pm	HIGH RATES OF ULNAR COLLATERAL LIGAMENT INJURY AND AVULSION IN ADOLESCENTS PRESENTING WITH MEDIAL ELBOW INJURY Claire Althoff, BA	
	1:27 - 1:32pm	TRENDS IN ULNAR COLLATERAL LIGAMENT INJURIES AND SURGERIES OVER THE LAST DECADE: AN ANALYSIS OF A NATIONAL MEDICAL CLAIMS DATABASE Carl Nissen, MD	
	1:32 - 1:37pm	ACTIVITY INFLUENCES LOCATION AND CHARACTERISTICS OF OCD OF THE CAPITELLUM Sharon Huang, MD	
	1:37 - 1:42pm	ULNAR COLLATERAL LIGAMENT TEAR IN ELITE BASEBALL PITCHERS: DO HIGH SCHOOL SHOWCASE EXPOSURES PREDICT INJURY?  Peter Kriz, MD	
	1:42 - 1:47pm	INCIDENCE OF PEDIATRIC SUPERIOR LABRAL (SLAP) REPAIRS ACROSS THE UNITED STATES: A PHIS DATABASE STUDY  Matthew Milewski, MD	
	1:47 - 2:00pm	Discussion Carlos Uquillas, MD	
1:15 - 2:00pm	SCIENTIFIC SESSION 1:15 - 1:17pm	4: CONCUSSION 1  Moderator  Jonathan Santana, DO	Centennial A/B/C
	1:17 - 1:22pm	Research Update & Literature Highlights – Concussion Shane Miller, MD	
	1:22 - 1:27pm	CONCUSSION RECOVERY COURSE IS IMPROVED BY EARLY REFERRAL TO SPECIALTY PEDIATRIC CONCUSSION CLINIC August Price, PsyD	
	1:27 - 1:32pm	INCIDENCE AND ETIOLOGY OF EXERCISE INTOLERANCE UTILIZING AN 5 STEP EXERTIONAL TESTING PROTOCOL IN PEDIATRIC PATIENTS WITH CONCUSSIONS Alicia Chen, B.S.	
	1:32 - 1:37pm	OBJECTIVE MEASUREMENTS OF SLEEP AND PHYSICAL ACTIVITY BEHAVIOR FOLLOWING ADOLESCENT CONCUSSION Linda Neely	
	1:37 - 1:42pm	DIFFERENCES IN PUPILLARY LIGHT REFLEX METRICS AFTER CONCUSSION PERSIST AT CLINICAL RECOVERY  Christina Master, MD	
	1:42 - 1:47pm	UTILIZATION OF SPECIALTY CONCUSSION CARE DIFFERS AMONG BLACK AND WHITE ATHLETES Alison Datoc, PhD	

2:00 - 2:45pm	SCIENTIFIC SESSION 2:00 - 2:02pm	Moderator Sailesh Tummala, MD	Centennial D/E
	2:02 - 2:07pm	Research Update & Literature Highlights – Rehabilitation  Julie Dyke, DPT, SCS	
	2:07 - 2:12pm	LOWER PSYCHOLOGICAL READINESS FOR RETURN TO SPORT AFTER ACL RECONSTRUCTION IS ASSOCIATED WITH REDUCED PERFORMANCE AND GREATER LIMB ASYMMETRY ON FUNCTIONAL TESTING Elizabeth Scott	
	2:12 - 2:17pm	PRE-OPERATIVE EXPECTATIONS FOR OUTCOMES FOLLOWING ACL RECONSTRUCTION: A SURVEY OF ADOLESCENT PATIENTS AND THEIR PARENTS  Michael Saper, DO, ATC, CSCS	
	2:17 - 2:22pm	TIME FROM ACL INJURY TIME TO SURGERY: EVALUATING A MULTIFACETED SET OF POTENTIAL PREDICTORS  Claire Giachino	
	2:22 - 2:27pm	EARLY- AND LATE-STAGE BENEFITS OF BLOOD FLOW RESTRICTION TRAINING ON KNEE STRENGTH IN ADOLESCENTS FOLLOWING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION Dylan Roman, PT, DPT	
	2:27 - 2:32pm	PREDICTORS AND EARLY MANAGEMENT OF KNEE ARTHROFIBROSIS AFTER ARTHROSCOPIC KNEE LIGAMENT RECONSTRUCTION SURGERY IN ADOLESCENT PATIENTS  Alejandro Marquez-Lara, MD, PhD	
	2:32 - 2:37pm	ARE NEIGHBORHOOD CONDITIONS ASSOCIATED WITH SURGICAL DELAYS AND MENISCUS TEARS IN CHILDREN AND ADOLESCENTS UNDERGOING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION? Samuel Rosenberg	
	2:37 - 2:45pm	Discussion Sailesh Tummala, MD	
2:00 - 2:45pm	SCIENTIFIC SESSION	I 6: UPPER EXTREMITY 2	Centennial A/B/C
·	2:00 - 2:02pm	Moderator Jeremy Frank, MD	
	2:02 - 2:07pm	Research Update & Literature Highlights – Shoulder Instability Nirav Pandya, MD	
	2:07 - 2:12pm	5 YEAR RADIOGRAPHIC AND FUNCTIONAL OUTCOMES OF NON-OPERATIVE TREATMENT OF COMPLETELY DISPLACED CLAVICLE FRACTURES IN TEENAGERS, A PROSPECTIVE STUDY. Andrew Pennock, MD	
	2:12 - 2:17pm	GROUND REACTION FORCES ARE ASSOCIATED WITH BOTH BALL VELOCITY AND THE ELBOW VARUS MOMENT IN COLLEGITATE LEVEL BASEBALL PITCHERS  Carl Nissen, MD	
	2:17 - 2:22pm	SKIN TENTING ASSOCIATED WITH COMPLETELY DISPLACED MIDSHAFT CLAVICLE FRACTURES IN ADOLESCENTS: RESULTS FROM THE FACTS MULTI-CENTER PROSPECTIVE COHORT STUDY Joshua Pang, BA	
	2:22 - 2:27pm	EFFECT OF HIGH SCHOOL SHOWCASE EXPOSURES AND TIMING OF ULNAR COLLATERAL LIGAMENT TEAR ON PROFESSIONAL BASEBALL CAREERS IN ELITE PITCHERS  Peter Kriz, MD	
	2:27 - 2:32pm	INCIDENCE OF ARTHROSCOPIC AND OPEN PEDIATRIC SHOULDER STABILIZATION PROCEDURES ACROSS THE UNITED STATES: A PHIS DATABASE STUDY <i>Ryan Coene, MS</i>	
	2:32 - 2:45pm	Discussion  Jeremy Frank, MD	
2:45 - 3:00pm	BREAK		Centennial A/B/C

3:00 - 3:45pm	SCIENTIFIC SESSION 3:00 - 3:02pm	I 7: INJURY PREVENTION/SPECIALIZATION  Moderator  Diana Hines, CPNP-AC/PC	Centennial D/E
	3:02 - 3:07pm	Research Update & Literature Highlights – Injury Prevention  Joe Janosky, DrPHc, MSc, PT, AT	
	3:07 - 3:12pm	IMPACT OF SPORT SPECIALIZATION AND PARTICIPATION PATTERNS ON SPORT-RELATED INJURY HISTORY IN YOUTH ATHLETES BY GEOGRAPHICAL REGION Amanda Arnold, PT, DPT, PhD	
	3:12 - 3:17pm	REPORTED CAUSES OF DEATH DURING YOUTH SPORTS PARTICIPATION, 2016 -2021 Steven Horwitz, DC	
	3:17 - 3:22pm	COMPARISON OF HIP MUSCLE STRENGTH BY MATURATION STATUS AND RUNNING-RELATED INJURY IN YOUTH DISTANCE RUNNERS  Mitchell Rauh, PT, PhD, MPH, FACSM	
	3:22 - 3:27pm	20-YEAR TRENDS IN SPORT PARTICIPATION AMONG UNITED STATES HIGH SCHOOL STUDENTS Gregory Knell, PhD	
	3:27 - 3:32pm	DIFFERENCES IN SPORTS BIOMECHANICS BETWEEN PRE-TEEN AND TEENAGE ATHLETES Sarah Adams, BS	
	3:32 - 3:45pm	Discussion Diana Hines, CPNP-AC/PC	
3:00 - 3:45pm	SCIENTIFIC SESSION	8: MENISCUS AND KNEE	Centennial A/B/C
	3:00 - 3:02pm	Moderator  Jay Albright, MD	
	3:02 - 3:07pm	Research Update & Literature Highlights – Bone Stress  Emily Kraus, MD	
	3:07 - 3:12pm	CHANGES IN FUNCTIONAL MENISCUS MORPHOLOGY DURING SKELETAL GROWTH AND MATURATION Shankar Kaushal	
	3:12 - 3:17pm	VARIATION IN ARTHROSCOPIC TREATMENT OF DISCOID LATERAL MENISCUS IN CHILDREN: RESULTS OF A MULTICENTER MENISCUS STUDY GROUP SURVEY Marie-Lyne Nault, MD, PhD	
	3:17 - 3:22pm	TRANSOSSEOUS SUTURE REPAIR OF LATERAL MENISCUS POSTERIOR ROOT TEAR IN PEDIATRIC CADAVERS IMPROVES CONTACT AREA BIOMECHANICS AT HIGH DEGREES OF FLEXION Anshal Gupta, MTM	
	3:22 - 3:27pm	PERIOPERATIVE MANAGEMENT OF TIBIAL SPINE FRACTURES IN PEDIATRIC PATIENTS: A DELPHI STUDY TO ACHIEVE GUIDING PRINCIPLES OF TREATMENT Madison Brenner, BSA	
	3:27 - 3:32pm	OPEN VERSUS ARTHROSCOPIC FIXATION OF TIBIAL-SIDED POSTERIOR CRUCIATE AVULSION FRACTURES IN PEDIATRIC AND ADOLESCENT ATHLETES  Evan Beatty	
	3:32 - 3:45pm	Discussion Jay Albright, MD	

PRISM 10th ANNUAL MEETING

3:45 - 4:30pm	SCIENTIFIC SESSION 3:45 - 3:47pm	M 9: CONCUSSION 2  Moderator  Rachel Johnson, PhD, ATC	Centennial D/E
	3:47 - 3:52pm	Research Update & Literature Highlights – Ultrasound  Jacob Jones, MD	
	3:52 - 3:57pm	SYMPTOM RESOLUTION FOLLOWING PEDIATRIC CONCUSSION IN ATHLETIC TRAINING VS. PRIM. CARE SPORTS MEDICINE SETTING: FINDINGS FROM THE SPORT CONCUSSION OUTCOMES IN PEDIATRICS (SCOPE) STUDY Aaron Zynda, BS, CCRP	ARY
	3:57 - 4:02pm	CONCUSSION CHARACTERISTICS AND TIME TO MEDICAL CLEARANCE AMONG YOUTH ADVENTU SPORT ATHLETES Daniel Truong, DO	IRE
	4:02 - 4:07pm	DOUBLE VISION AND LIGHT SENSITIVITY SYMPTOMS ARE ASSOCIATED WITH RETURN TO SCHOOL TIMING AFTER PEDIATRIC CONCUSSION Katherine Smulligan, PT, DPT	OL .
	4:07 - 4:12pm	ACOUSTIC STARTLE RESPONSE SUPPRESSION IN ADOLESCENT ATHLETES FOLLOWING CONCUS Jessie Oldham, PhD	SSION
	4:17 - 4:22pm	POST-EXERTIONAL VESTIBULOCULAR MARKERS IN PEDIATRIC PATIENTS WITH CONCUSSION AN EXERCISE INTOLERANCE (EI)I Alicia Chen	ID
	4:22 - 4:30pm	Discussion Rachel Johnson, PhD, ATC	
3:45 - 4:30pm	SCIENTIFIC SESSION	N 10: FEMALE ATHLETE AND MENTAL HEALTH	Centennial A/B/C
,	3:45 - 3:47pm	Moderator Jeff Albaugh MSPT, AT	
	3:47 - 3:52pm	Research Update & Literature Highlights – Female Athlete Corinna Franklin, MD	
	3:52 - 3:57pm	LOWER EXTREMITY STRENGTH RELATIVE TO BODY MASS BY DEVELOPMENTAL PHASES IN PEDIFEMALE ATHLETES  Dai Sugimoto, PHD	ATRIC
	3:57 - 4:02pm	PARENTAL PERCEPTIONS OF POINTE READINESS DECISION MAKING IN YOUTH BALLET DANCER STUDY FROM THE SPORTS SPECIALIZATION RESEARCH INTEREST GROUP Ashley Erdman, BS MBA	8S: A
	4:02 - 4:07pm	IMPACT OF SPORT PARTICIPATION TYPES ON SUICIDALITY PREVALENCE IN PEDIATRIC SPORTS MEDICINE PATIENTS  Emily Stapleton, PsyD	
	4:07 - 4:12pm	CORRELATING PRE-OPERATIVE MENTAL HEALTH AND POST-OPERATIVE WELL-BEING AMONG ADOLESCENTS UNDERGOING POSTERIOR SPINAL FUSION FOR IDIOPATHIC SCOLIOSIS Leila Mehraban Alvandi	
	4:12 - 4:17pm	BASEBALL PUBLICATIONS VASTLY OUTNUMBER SOFTBALL PUBLICATIONS: A SYSTEMATIC REVI YOUTH SPORTS Gabrielle Gilmer, BCh	EW IN
	4:17 - 4:22pm	THE RELATIONSHIP BETWEEN MACRONUTRIENT CONSUMPTION AND SLEEP IN ADOLESCENT ATHLETES  Corrine Seehusen, BA	
	4:22 - 4:30pm	Discussion Jeff Albaugh MSPT, AT	
4:30 - 4:45pm	COCKTAIL BREAK		Centennial Foyer & F/G/H
4:45 - 5:45pm	MUSICAL MINGLING		Mineral A/B/C
5:45 - 6:30pm	NETWORKING RECE		Centennial Foyer & F/G/H



Centennial D/E

Centennial D/E

7:00 - 8:00am **BREAKFAST** Centennial F/G/H

7:30 - 8:00am PRISM AWARDS AND GAVEL EXCHANGE

8:00 - 8:45am KEYNOTE: EATING DISORDERS IN PEDIATRIC SPORTS MEDICINE

Brian Cook, MD



Dr. Cook developed an original line of research examining the etiological role, management, and therapeutic potential of exercise in eating disorders. His education at the Universities of Rhode Island and Florida and a NIMH post-doctoral fellowship at the Neuropsychiatric Research Institute in Fargo, ND allowed him to train under experts in the eating disorder field. This has resulted in over 70 peer-reviewed scientific journal articles, book chapters, and industry publications and over 120 peer-reviewed conference workshops, presentations, webinars, and continuing education credit seminars. He has previously keynoted the 2017 International Association of Eating Disorders Professionals annual meeting and presented his

work on exercise, athletes, and eating disorders at conferences throughout the United States, Canada, and Europe. He has translated his research into clinical practice while employed at an eating disorders treatment center with locations nationwide. He is a sought-after presenter, author, and consultant for exercise, eating disorders, behavioral medicine, and behavioral addictions.

RRFAK 8:45 - 9:00am

9:00 - 10:00am T Centennial D/E

	BREAK			
TOP 10 POSTER SESSION				
	9:00 - 9:02am	Moderator		
		Christin Zwolski, PT, DPT, PhD, OCS		
	9:02 - 9:07am	Research Update & Literature Highlights – Motion Analysis  Mia Katzel, DPT		
	9:07 - 9:10am	OUTCOMES AND GRAFT FAILURE RATE FOLLOWING PRIMARY ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION USING ALL SOFT TISSUE QUADRICEPS AUTOGRAFT IN THE PEDIATRIC ATHLETE Stephanie Logterman, MD		
	9:10 - 9:13am	CHANGES IN PELVIC TILT DURING A SQUAT FOLLOWING TREATMENT FOR FEMOROACETABULAR IMPINGEMENT  Benjamin Johnson, PA-C		
	9:13 - 9:16am	THE ULTRASTRUCTURE OF THE DEVELOPING HUMAN ANTERIOR CRUCIATE LIGAMENT: A PRELIMINARY ANALYSIS USING SCANNING ELECTRON MICROSCOPY Sophia Hidalgo-Perea, BS		
	9:16 - 9:19am	EVALUATION OF A DEPRESSION SCREENING PROGRAM IN PEDIATRIC ORTHOPAEDIC SPORTS CLINICS: WHICH PATIENTS ARE IDENTIFIED AS AT RISK? Reinaldo Colon-Morillo, MD		
	9:19 - 9:22am	INCREASED GRIT IS ASSOCIATED WITH GREATER ACTIVITY LEVEL AND LOWER EXTREMITY FUNCTION ACROSS TIME AFTER ACL RECONSTRUCTION IN ADOLESCENT ATHLETES  Aubrey Armento, MD		
	9:22 - 9:25am	A NOVEL MAGNETIC RESONANCE IMAGING MARKER FOR ANTERIOR INSTABILITY OF THE LATERAL MENISCUS  Matthew Kinnard, MD		
	9:25 - 9:28am	MODELING THE TRUNK FOR SPORTS TESTING IN A MOTION CAPTURE LAB: MARKER PLACEMENT, SEGMENT DEFINITION, AND TRACKING Sophia Ulman, PhD		
	9:28 - 9:31am	CHEERLEADERS EXPERIENCE MORE COMPLICATED CONCUSSION RECOVERY COMPARED TO NON-CHEER ATHLETES  Sarah Boucher		
	9:31 - 9:34am	CLINICAL OUTCOMES OF ADOLESCENTS WITH ANTERIOR SHOULDER INSTABILITY AND GLENOLABRAL ARTICULAR DISRUPTION COMPARED TO ISOLATED BANKART LESIONS Caitlin Orner, MD		
	9:34 - 9:37am	WELCOME BACK! RETURN TO SPORTS FOLLOWING COVID-19 PEAK HAS NOT LED TO INCREASED		



9:37 - 10:00am

SOFT TISSUE INJURY RATE IN PEDIATRIC POPULATION

Daniel Yang, BS

Christin Zwolski, PT, DPT, PhD, OCS

Discussion

9:00 - 10:00am	POSTER VIEWING		Centennial D/E
10:00 - 10:45am	<b>SCIENTIFIC SESSIO</b> 10:00 - 10:02am	N 11: ACL2  Moderator  Kevin Latz, MD	Centennial D/E
	10:02 - 10:07am	Research Update & Literature Highlights – Multi-Ligament Knee Matthew Ellington, MD	
	10:07 - 10:12am	VALIDATION OF A SURVEY TO CHARACTERIZE BARRIERS TO PHYSICAL ACTIVITY REENGAGEMENT AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION Chris Kuenze, PhD, ATC	
	10:12 - 10:17am	PREFERRED LANGUAGE OTHER THAN ENGLISH IS ASSOCIATED WITH DELAYED SURGERY FOLLOWING PEDIATRIC ANTERIOR CRUCIATE LIGAMENT INJURY Samuel Rosenberg	
	10:17 - 10:22am	POSTOPERATIVE KNEE ARTHROFIBROSIS CAN BE PREVENTED BY EARLY MANIPULATION UNDER ANESTHESIA  Alejandro Marquez-Lara, MD., PhD	
	10:22 - 10:27am	PREOPERATIVE RISK FACTORS OF SUBSEQUENT IPSILATERAL ACL REVISION SURGERY FOLLOWING AN ACL RESTORATION PROCEDURE Dennis Kramer, MD	
	10:27 - 10:32am	MUSCULAR FATIGUING TASKS SHOULD BE CONSIDERED IN RETURN TO ACTIVITY IN AN ACL-INJURED FEMALE PEDIATRIC POPULATION Blake Miller	
	10:32 - 10:45am	Discussion Kevin Latz, MD	
10:00 - 10:45am	<b>SCIENTIFIC SESSIO</b> 10:00 - 10:02am	N 12: HIP  Moderator  Javier Besomi, MD	Centennial A/B/C
	10:02 - 10:07am	Research Update & Literature Highlights – Hip Disorder Sasha Carsen, MD	
	10:07 - 10:12am	PREVALENCE OF ASYMPTOMATIC ACETABULAR LABRAL TEARS IN THE ADOLESCENT POPULATION I-Yuan Joseph Chang, MD	
	10:12 - 10:17am	A DESCRIPTIVE MULTI-CENTER ANALYSIS OF ADOLESCENT FEMORAL NECK BONE STRESS INJURIES Abigail McIntyre	
	10:17 - 10:22am	A COMPARISON OF GAIT AND FUNCTIONAL OUTCOMES BETWEEN OPEN AND ARTHROSCOPIC TREATMENT OF ADOLESCENT FEMOROACETABULAR IMPINGEMENT Henry Ellis, MD	
	10:22 - 10:27am	HIP DYSPLASIA IS ASSOCIATED WITH PATELLOFEMORAL JOINT DYSPLASIA Stephanie Kha	
	10:27 - 10:32am	FACTORS THAT FOSTER THERAPEUTIC ALLIANCE IN PEDIATRIC SPORTS AND ORTHOPEDICS: A SYSTEMATIC REVIEW  Rachel Meyers, PT, DPT	
	10:32 - 10:45am	Discussion Javier Besomi, MD	
10:45 - 11:45am	INTERNATIONAL PE This session will bui research in their res settings.	DURSE 3: PEDIATRIC SPORTS MEDICINE RESEARCH AROUND THE WORLD: ERSPECTIVES  Id off the recent PRiSM Journal Club: International Sports Medicine webinar. The panelists will discuss pedi pective countries. They will speak to the geographical differences and treatments and the potential applica  Chile); Amanda Black, PhD; Guri Ekas, MD PhD (Norway); and Dai Sugimoto, PhD ATC CSCS (Japan)	



Centennial F/G/H

LUNCH

11:45-1:00 pm

Centennial D/E

12:00 - 1:00pm

#### LUNCH & LEARN 2: THE YOUTH CLIMBER: MEDICAL, REHABILITATIVE, AND TRAINING CONSIDERATIONS

Youth rock climbing teams have grown dramatically in the last decade and are projected to continue to grow with the recent addition of rock climbing as an Olympic sport. The physicians and allied health professionals that attend this course will gain necessary practical knowledge to manage injuries in the pediatric climbing population. A thorough understanding of sport demands, training volume, and training techniques are necessary to provide recommendations to climbing athletes, parents, and coaches. This course will provide the audience with evidence-based and practical information on injury management and injury prevention for youth climbers using an interactive format that includes live polling throughout the course and a question-and-answer session.

Nick Purcell, PT DPT SCS; Amy Fruge, PT DPT Cert MDT; Mark Fisher, MD FAAPMR; Jorge Gomez, MD and Bruce Stockton, PT DPT CSCS

12:00 - 1:00pm

#### **COMMITTEE MEETINGS**

Awards Granite A
Diversity Granite B/C

Membership

**BREAK** 

Mineral F
Centennial D/E

Centennial A/B/C

1:00 - 2:00pm

#### INSTRUCTIONAL COURSE 4: EVIDENCED-BASED TREATMENT FOR BASEBALL AND SOFTBALL PLAYERS

The goal of this presentation is to provide an evidenced-based update of evaluation and treatment considerations for common injuries in the pediatric overhead athlete. The audience for this course will gain knowledge and understanding of the management of these injuries from a medical, rehabilitative, and surgical perspective. This presentation will cover hot topics in baseball and softball, as well as the importance of the kinetic chain for these athletes. Practical application of the principles discussed in this course will be assured through case presentations and an interactive question and answer session with live polling.

Nicole Melfi PT DPT SCS ATC; Nick Purcell PT DPT SCS; Lauren Mills PT DPT SCS; Jonathan Santana, DO; and Bryce Bell, MD

1:00 - 2:00pm

# INSTRUCTIONAL COURSE 5: BUILDING ATHLETES FOR LIFE: SPORTS MEDICINE PROFESSIONALS AS CHAMPIONS OF PHYSICAL LITERACY DEVELOPMENT

As defined by the International Physical Literacy Association, physical literacy is the motivation, confidence, knowledge, and understanding to value and take responsibility for engagement in physical activities for life. The construct offers a necessary and more holistic, systems-oriented approach to physical activity promotion, recently spurring the world-wide launch of physical literacy development initiatives for youth. Sports medicine professionals are aptly suited, and perhaps responsible, for fostering physical literacy developmentamong young athletes, particularly among those at highest risk of physical literacy disruption following injury.

By incorporating a broad range of speaker and content expertise, this course will equip attendees with the knowledge and confidence to educate young athletes and families on the importance of physical literacy development, regardless of sex, sport, and competition level. Recent evidence will be employed to demonstrate the critical need for sports medicine professionals to reconceptualize care provision for the injured young athlete in order to promote quality movement for life. For clinical application, attendees will be introduced to interdisciplinary strategies for supporting necessary development of physical literacy among youth.

Christin Zwolski, PT DPT PhD; Joseph Janosky, DrPHc MSc PT AT; Matthew Paponetti, PT DPT; and Mark Paterno, PT PhD MBA SCS ATC

2:00 - 2:15pm 2:15 - 3:15pm

### INSTRUCTIONAL COURSE 6: CARING FOR THE PEDIATRIC RUNNER

The popularity of youth participation in running as a sport has dramatically increased. Running poses potential benefits to a child's health, social, and personal development. However, increased participation in youth running may also contribute to rise of running related injuries and health concerns. Recent publication of guidelines have been published on the topic of guiding safe participation in youth running and subsequent research has expanded on recognized gaps in knowledge. Injury prevention includes utilization of effective screening tools to identify risk factors and implement injury preventative measures through a multidisciplinary approach. This course highlights the care of the pediatric runner with a focus on the evolution of running as a sport, the types and patterns of running-related injuries, identification of injury risk factors, and the development of effective screening tools and preventative measures. Stephanie DeLuca, MD; Pierre d'Hemecourt, MD (tentative speaker); Emily Kraus, MD; Adam S. Tenforde, MD; and Kristin Whitney, MD

2:15 - 3:15pm

#### INSTRUCTIONAL COURSE 7: THE TEAM APPROACH: CARE OF THE CHILD AND ADOLESCENT

This course will present a multidisciplinary approach to the care of the child and adolescent athlete, including specific considerations regarding the medical, nutrition, rehabilitation, and mental health needs of the growing athlete.

Aubrey Armento, MD; Amanda McCarthy, RD; Rachel Meyers, DPT; and Marie "Mimi" Renaudin, DPT MASPP

Centennial D/E

Centennial F/G/H

Centennial A/B/C



3:15 - 4:00pm	SCIENTIFIC SESSION 3:15 - 3:17pm	I 13: MENISCUS  Moderator  Jennifer Brey, MD	Centennial D/E
	3:17 - 3:22pm	Research Update & Literature Highlights – Meniscus  Emily Niu, MD	
	3:22 - 3:27pm	PEDIATRIC MENISCUS REPAIR: SAFETY PROFILE BASED ON > 2000 ARTHROSCOPIC MENISCUS REPAIRS Keinan Agonias, BS	
	3:27 - 3:32pm	PREVALENCE OF CONCOMITANT MENISCUS SURGERIES DURING ACL SURGERIES: DATA FROM THE BCH ACL REGISTRY  James Pruneski, BS	
	3:32 - 3:37pm	REPAIR OF RADIAL MENISCUS TEARS IN PEDIATRIC PATIENTS: RESULTS FROM ¬¬ A 16-INSTITUTION MULTICENTER QUALITY IMPROVEMENT REGISTRY Jonathan Joyner	
	3:37 - 3:42pm	FACTORS INFLUENCING MENISCUS REPAIR OR MENISCECTOMY IN THE ADOLESCENT POPULATION Zachariah Samuel, BS	
	3:42 - 3:47pm	BIOMECHANICAL FORCES OF THE PEDIATRIC KNEE JOINT FOLLOWING COMPLETE MENISCECTOMY AND SUBSEQUENT MENISCAL TRANSPLANT Anshal Gupta, MTM	
	3:47 - 3:52pm	MENISCAL RAMP LESIONS IN ADOLESCENT PATIENTS UNDERGOING PRIMARY ACL RECONSTRUCTION Eric Edmonds, MD, FAOA	
	3:52 - 4:00pm	Discussion Jennifer Brey, MD	
		· · · · · · · · · · · · · · · · · · ·	
3:15 - 4:00pm	SCIENTIFIC SESSION	14: PATELLA INSTABILITY	Centennial A/B/C
3:15 - 4:00pm	SCIENTIFIC SESSION 3:15 - 3:17pm		Centennial A/B/C
3:15 - 4:00pm		14: PATELLA INSTABILITY  Moderator	Centennial A/B/C
3:15 - 4:00pm	3:15 - 3:17pm	Moderator  Jennifer Beck, MD  Research Update & Literature Highlights – Patellofemoral Instability	Centennial A/B/C
3:15 - 4:00pm	3:15 - 3:17pm 3:17 - 3:22pm	Moderator Jennifer Beck, MD  Research Update & Literature Highlights – Patellofemoral Instability Brendan Williams, MD  DO MALES MORE COMMONLY SEEK EMERGENT TREATMENT FOR PATELLOFEMORAL INSTABILITY? A 20-YEAR ANALYSIS.	Centennial A/B/C
3:15 - 4:00pm	3:15 - 3:17pm 3:17 - 3:22pm 3:22 - 3:27pm	Moderator Jennifer Beck, MD  Research Update & Literature Highlights – Patellofemoral Instability Brendan Williams, MD  DO MALES MORE COMMONLY SEEK EMERGENT TREATMENT FOR PATELLOFEMORAL INSTABILITY? A 20-YEAR ANALYSIS.  Nathan Houlihan, BS  MEDIAL PATELLOFEMORAL LIGAMENT AUGMENTATION REPAIR PROVIDES STABILIZATION AND IMPROVED OUTCOMES IN PRIMARY PATELLAR DISLOCATIONS WITH CONCOMITANT CHONDRAL OR OSTEOCHONDRAL INJURY IN CHILDREN AND ADOLESCENTS	Centennial A/B/C
3:15 - 4:00pm	3:15 - 3:17pm 3:17 - 3:22pm 3:22 - 3:27pm 3:27 - 3:32pm	Moderator Jennifer Beck, MD  Research Update & Literature Highlights – Patellofemoral Instability Brendan Williams, MD  DO MALES MORE COMMONLY SEEK EMERGENT TREATMENT FOR PATELLOFEMORAL INSTABILITY? A 20-YEAR ANALYSIS.  Nathan Houlihan, BS  MEDIAL PATELLOFEMORAL LIGAMENT AUGMENTATION REPAIR PROVIDES STABILIZATION AND IMPROVED OUTCOMES IN PRIMARY PATELLAR DISLOCATIONS WITH CONCOMITANT CHONDRAL OR OSTEOCHONDRAL INJURY IN CHILDREN AND ADOLESCENTS John Schlechter, DO  DOES TIBIAL TUBEROSITY OSTEOTOMY ADD ADDITIONAL BENEFIT WHEN COMBINED WITH MEDIAL PATELLOFEMORAL LIGAMENT RECONSTRUCTION IN THE PRESENCE OF INCREASED TIBIAL TUBEROSITY – TROCHELAR GROOVE DISTANCE? – A SYSTEMATIC REVIEW AND META-ANALYSIS	Centennial A/B/C
3:15 - 4:00pm	3:15 - 3:17pm 3:17 - 3:22pm 3:22 - 3:27pm 3:27 - 3:32pm 3:32 - 3:37pm	Moderator Jennifer Beck, MD  Research Update & Literature Highlights – Patellofemoral Instability Brendan Williams, MD  DO MALES MORE COMMONLY SEEK EMERGENT TREATMENT FOR PATELLOFEMORAL INSTABILITY? A 20-YEAR ANALYSIS.  Nathan Houlihan, BS  MEDIAL PATELLOFEMORAL LIGAMENT AUGMENTATION REPAIR PROVIDES STABILIZATION AND IMPROVED OUTCOMES IN PRIMARY PATELLAR DISLOCATIONS WITH CONCOMITANT CHONDRAL OR OSTEOCHONDRAL INJURY IN CHILDREN AND ADOLESCENTS John Schlechter, DO  DOES TIBIAL TUBEROSITY OSTEOTOMY ADD ADDITIONAL BENEFIT WHEN COMBINED WITH MEDIAL PATELLOFEMORAL LIGAMENT RECONSTRUCTION IN THE PRESENCE OF INCREASED TIBIAL TUBEROSITY – TROCHELAR GROOVE DISTANCE? – A SYSTEMATIC REVIEW AND META-ANALYSIS Borna Guevel  KINESIOPHOBIA-RELATED BRAIN FUNCTIONAL CONNECTIVITY FOR KNEE MOVEMENT IN YOUNG FEMALES WITH PATELLOFEMORAL PAIN	Centennial A/B/C

Jennifer Beck, MD

TOF	210	
101	CHANGES IN PELVIC TILT DURING A SQUAT FOLLOWING	1. Alex Loewen, Scottish Rite for Children 2. Benjamin Johnson, Scottish Rite for Children 3.
101	TREATMENT FOR FEMOROACETABULAR IMPINGEMENT	Sophia Ulman, Scottish Rite for Children 4. William Morris, Scottish Rite for Children 5. Henry Ellis, Texas Scottish Rite Hospital for Children
102	THE ULTRASTRUCTURE OF THE DEVELOPING HUMAN ANTERIOR CRUCIATE LIGAMENT: A PRELIMINARY ANALYSIS USING SCANNING ELECTRON MICROSCOPY	1. Sofia Hidalgo Perea, Hospital for Special Surgery 2. Kenneth Lin, Stanford University, Department of Orthopaedic Surgery 3. Tyler Uppstrom, Hospital for Special Surgery 4. Lionel Lazaro, Sabanera Health Dorado, Puerto Rico & Doctors' Center Hospital San Juan, Puerto Rico 5. Stephen Doty, Hospital for Special Surgery 6. Craig Klinger, Hospital for Special Surgery 7. Scott Rodeo, Hospital for Special Surgery 8. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine 9. Daniel Green, Hospital for Special Surgery
103	EVALUATION OF A DEPRESSION SCREENING PROGRAM IN PEDIATRIC ORTHOPAEDIC SPORTS CLINICS: WHICH PATIENTS ARE IDENTIFIED AS AT RISK?	1. Reinaldo Colon-Morillo, Naval Medical Center San Diego 2. Tracey Bastrom, Rady Children's Hospital 3. Eric Edmonds, Rady Children's Hospital, Division of Orthopaedic Surgery,
104	INCREASED GRIT IS ASSOCIATED WITH GREATER ACTIVITY LEVEL AND LOWER EXTREMITY FUNCTION ACROSS TIME AFTER ACL RECONSTRUCTION IN ADOLESCENT ATHLETES	1. Aubrey Armento, Sports Medicine Center, Children's Hospital Colorado 2. Carson Keeter, University of Colorado   Anschutz Medical Campus 3. Alexia Gagliardi, Geisinger Medical Center 4. Hannah Rossing, Sports Medicine Center, Children's Hospital Colorado 5. Claire Giachino, Sports Medicine Center, Children's Hospital Colorado 6. Curtis VandenBerg, Sports Medicine Center, Children's Hospital Colorado 7. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 8. Jay Albright, Sports Medicine Center, Children's Hospital Colorado
105	A NOVEL MAGNETIC RESONANCE IMAGING MARKER FOR ANTERIOR INSTABILITY OF THE LATERAL MENISCUS	1. Emily Niu, Children's National Medical Center 2. Matthew Kinnard, Walter Reed National Military Medical Center/Uniformed Services University of the Health Sciences 3. Benjamin Hoyt, Walter Reed National Military Medical Center/Uniformed Services University of the Health Sciences
106	MODELING THE TRUNK FOR SPORTS TESTING IN A MOTION CAPTURE LAB: MARKER PLACEMENT, SEGMENT DEFINITION, AND TRACKING	1. Sophia Ulman, Scottish Rite for Children 2. Alex Loewen, Scottish Rite for Children 3. Ashley Erdman, Scottish Rite for Children 4. Ross Chafetz, Shriner's Hospital for Children - Philadelphia 5. Tishya Wren, Children's Hospital Los Angeles 6. Kirsten Tulchin-Francis, Nationwide Childrens Hospital
107	CHEERLEADERS EXPERIENCE MORE COMPLICATED CONCUSSION RECOVERY COMPARED TO NON-CHEER ATHLETES	1. Sarah Boucher, University of Texas Southwestern 2. Alison Datoc, Children's Health Andrews Institute 3. Carrie Jones, Children's Health Andrews Institute 4. Christine Ellis, Children's Health Andrews Institute 5. Jacob Sexton, Children's Health Andrews Institute 6. John Abt, Children's Health Andrews Institute 7. Scott Burkhart, Children's Health Andrews Institute
109	CLINICAL OUTCOMES OF ADOLESCENTS WITH ANTERIOR SHOULDER INSTABILITY AND GLENOLABRAL ARTICULAR DISRUPTION COMPARED TO ISOLATED BANKART LESIONS	1. Caitlin Orner, Rady Children's Hospital 2. Tracey Bastrom, Rady Children's Hospital 3. Andrew Pennock, Rady Children's Hospital, Division of Orthopaedic Surgery, 4. Eric Edmonds, Rady Children's Hospital, Division of Orthopaedic Surgery,
112	OUTCOMES AND GRAFT FAILURE RATE FOLLOWING PRIMARY ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION USING ALL SOFT TISSUE QUADRICEPS AUTOGRAFT IN THE PEDIATRIC ATHLETE.	1. Stephanie Logterman, Arnold Palmer Hospital for Children 2. Amalie Nash, Emory University Department of Orthopaedics 3. Jesse Seilern, Emory University School of Medicine 4. Adam Jamnik, Emory University School of Medicine 5. Sameer Khawaja, Emory University School of Medicine 6. John Xerogeanes, Emory University Department of Orthopaedics
116	WELCOME BACK! RETURN TO SPORTS FOLLOWING COVID-19 PEAK HAS NOT LED TO INCREASED SOFT TISSUE INJURY RATE IN PEDIATRIC POPULATION	1. Daniel Yang, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2. Julianna Lee, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 3. Alexandra Stevens, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 4. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
ACL		
193	CHARACTERIZATION AND PREVALENCE OF PEDIATRIC RAMP LESIONS ASSOCIATED WITH ANTERIOR CRUCIATE LIGAMENT TEARS	1. Neritan Borici, Texas Children's Hospital 2. Ekene Ezeokoli, Texas Children's Hospital 3. Nathaniel Loyd, Baylor College of Medicine 4. Ifeoma Inneh, Texas Children's Hospital 5. Scott McKay, Texas Children's Hospital
118	THE IMPACT OF GRAFT CHOICE ON RETURN TO SPORT TESTING AFTER ADOLESCENT ACL RECONSTRUCTION	Brendan Shi, UCLA Department of Orthopedic Surgery 2. Kevin Chen, UCLA, School of Medicine 3. Shannon Wu, UCLA, School of Medicine 4. Abbie Bennett, UCLA, School of Medicine     Jennifer Beck, UCLA, School of Medicine
155	THE ASSOCIATION BETWEEN PHYSICAL COMPETENCE AND LANDING BIOMECHANICS AMONG YOUNG ATHLETES AFTER ACL RECONSTRUCTION	1. Christin Zwolski, Cincinnati Children's Hospital Medical Center 2. Mark Paterno, Cincinnati Children's Hospital Medical Center 3. Staci Thomas, Cincinnati Children's Hospital Medical Center 4. Laura Schmitt, Ohio State University and Wexner Medical Center

100		
186	PEDIATRIC ACL RECONSTRUCTION: ADDITION OF ANTEROLATERAL LIGAMENT/LATERAL EXTRA-ARTICULAR TENODESIS RESULTED IN SIMILAR RETURN TO SPORTS AND EARLY POSTOPERATIVE PROMIS SCORES	Alexandra Stevens, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2. Sara Kiani, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 3. Patrick England, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 4. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
122	IS ASYMMETRY OF THE MEDIAL AND LATERAL POSTERIOR FEMORAL CONDYLES ASSOCIATED WITH ACL RUPTURE: A COMPARISON COHORT STUDY OF PEDIATRIC PATIENTS	1. Nicolas Pascual-Leone, Hospital for Special Surgery 2. Danielle Chipman, Hospital for Special Surgery 3. Danielle Gorelick, Hospital for Special Surgery 4. Peter Fabricant, Hospital for Special Surgery 5. Russel Warren, Hospital for Special Surgery 6. Douglas Mintz, Hospital for Special Surgery 7. Daniel Green, Hospital for Special Surgery
114	EVALUATING PRE-OPERATIVE PHYSICAL THERAPY PRIOR TO ACL RECONSTRUCTION ON PAIN, FUNCTION, AND QUALITY-OF-LIFE	1. Emily Sweeney, Sports Medicine Center, Children's Hospital Colorado 2. Alexia Gagliardi, Geisinger Medical Center 3. Sarah Reinking, Sports Medicine Center, Children's Hospital Colorado 4. Curtis VandenBerg, Sports Medicine Center, Children's Hospital Colorado 5. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 6. Hannah Rossing, Sports Medicine Center, Children's Hospital Colorado 7. Claire Giachino, Sports Medicine Center, Children's Hospital Colorado 8. Jay Albright, Sports Medicine Center, Children's Hospital Colorado
123	TRENDS IN POST-OPERATIVE PEDI-IKDC SCORING BASED ON MECHANISM OF ACL INJURY	1. Eric Lin, Children's Hospital Los Angeles - University of Southern California 2. Mia Katzel, Children's Hospital Los Angeles 3. Adriana Liang, Children's Hospital Los Angeles 4. Tishya Wren, Children's Hospital Los Angeles
144	THE SIGNIFICANCE OF POSTERIOR TIBIAL SLOPE AND RATE OF CONCOMITANT PATHOLOGY IN PEDIATRIC TIBIA SPINE AVULSION AND ANTERIOR CRUCIATE LIGAMENT INJURIES	1. Nicholas Lopreiato, Cincinnati Children's Hospital Medical Center 2. Shital Parikh, Cincinnati Children's Hospital Medical Center 3. Kenneth lerardi, Cincinnati Children's Hospital Medical Center 4. Michael Wilk, Cincinnati Children's Hospital Medical Center
178	DOES SPORTS PARTICIPATION AFFECT CONCOMITANT INJURY IN PAEDIATRIC PATIENTS WITH ACL RUPTURE?	1. Lucas Blumenschein, University Hospitals Cleveland Medical Center/ Case Western Reserve University 2. David Kolin, Hospital for Special Surgery/Weill Cornell Medical College 3. Peter Fabricant, Hospital for Special Surgery 4. Joshua Park, University Hospitals Cleveland Medical Center/ Case Western Reserve University 5. Allison Gilmore, University Hospitals Cleveland Medical Center/ Case Western Reserve University 6. Mark Seeley, Geisinger Medical Center 7. R. Justin Mistovich, University Hospitals Cleveland Medical Center/ Case Western Reserve University
132	PSYCHOLOGICAL READINESS AFTER REVISION ACL RECONSTRUCTION: A ROAR STUDY	1. Magdalena Tarchala, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 2. Matthew Milewski, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 3. Ryan Coene, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 4. Danielle Cook, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 5. Mininder Kocher, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 6. Dennis Kramer, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 7. Lyle Micheli, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 8. Yi-Meng Yen, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 9. Melissa Christino, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine
124	SPORT-SPECIFIC PATIENT RISK FACTORS FOR ANTERIOR CRUCIATE LIGAMENT INJURY AND CONCOMITANT INTRA-ARTICULAR PATHOLOGY IN YOUNG ATHLETES	Brenden Ronna, Baylor College of Medicine, Baylor College of Medicine 2. Todd Phillips, Baylor College of Medicine, Baylor College of Medicine, Baylor College of Medicine, Baylor College of Medicine 4. Neal Goldenberg, Dartmouth-Hitchcock- Cheshire Medical Center 5. Theodore Shybut, Baylor College of Medicine, Baylor College of Medicine
166	MECHANICAL PROPERTIES OF PEDIATRIC KNEE LIGAMENTS AND THE ILIOTIBIAL BAND	Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2.  Matthew Rohde, Department of Orthopaedic Surgery, Stanford University School of Medicine     Seth Sherman, Stanford University Orthopaedic Surgery 4. Kevin Shea, Department of     Orthopaedic Surgery, Stanford University School of Medicine 5. Marcel Sanchez, Stanford     University School of Medicine, Stanford School of Medicine 6. Anshal Gupta, Stanford University,     Department of Pediatric Orthopedics

180	PATELLAR BONE-TENDON-PERIOSTEUM GRAFTS – A PHYSEAL SPARING ALTERNATIVE ACL GRAFT CHOICE FOR THE SKELETALLY IMMATURE	1. Marcel Sanchez, Stanford University School of Medicine, Stanford School of Medicine 2.  Anshal Gupta, Stanford University, Department of Pediatric Orthopedics 3. Hunter Storaci, Stanford University School of Medicine, Stanford School of Medicine 4. Matthew Rohde, Department of Orthopaedic Surgery, Stanford University School of Medicine 5. Seth Sherman, Stanford University Orthopaedic Surgery 6. Henry Ellis, Texas Scottish Rite Hospital for Children 7. Marc Tompkins, University of Minnesota, Department of Orthopaedic Surgery 8. Philip Wilson, Texas Scottish Rite Hospital for Children 9. Daniel Green, Hospital for Special Surgery 10. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 11. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine
147	BONE-PATELLAR TENDON-PERIOSTEUM GRAFTS - AN ALTERNATIVE ACL GRAFT CHOICE FOR THE SKELETALLY IMMATURE?	1. Marcel Sanchez, Stanford University School of Medicine, Stanford School of Medicine 2.  Anshal Gupta, Stanford University, Department of Pediatric Orthopedics 3. Hunter Storaci, Stanford University School of Medicine, Stanford School of Medicine 4. Matthew Rohde, Department of Orthopaedic Surgery, Stanford University School of Medicine 5. Seth Sherman, Stanford University Orthopaedic Surgery 6. Henry Ellis, Texas Scottish Rite Hospital for Children 7. Marc Tompkins, University of Minnesota, Department of Orthopaedic Surgery 8. Philip Wilson, Texas Scottish Rite Hospital for Children 9. Daniel Green, Hospital for Special Surgery 10. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 11. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine
177	THE EFFECTS OF BLOOD FLOW RESTRICTION TRAINING ON HIP EXTENSION ISOMETRIC STRENGTH DURING EARLY REHABILITATION AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION IN ADOLESCENTS	1. Dylan Roman, Connecticut Childrens 2. Julie Burland, UConn Institute for Sports Medicine 3. Arthur Fredericks, Connecticut Childrens 4. Nicholas Giampetruzzi, Connecticut Childrens 5. Jennifer Prue, Connecticut Childrens 6. Adel Lolic, Connecticut Childrens 7. James Pace, Children's Health Andrews Institute 8. Allison Crepeau, Connecticut Childrens 9. Adam Weaver, Connecticut Childrens
110	UPWARD COST TRENDS IN TEN YEARS OF PEDIATRIC ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION	1. Alvin Su, Nemours Children's Health System/Al duPont Hospital for Children 2. Keith Hazen, West Chester University of PA 3. Kenneth Rogers, Nemours Children's Health System/Al duPont Hospital for Children 4. Matt Saboe, West Chester University of PA 5. Simon Condliffe, West Chester University of PA
СО	NCUSSION	
137	DIFFERENTIATING TREATMENT RESPONDERS FROM NON-RESPONDERS AFTER AEROBIC EXERCISE INTERVENTION IN ADOLESCENTS WITH CONCUSSION	1. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 2. Danielle Hunt, Boston Children's Hospital 3. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 4. Rebekah Mannix, Boston Children's Hospital 5. William Meehan, Boston Children's Hospital 6. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
117	SYMPTOM RESOLUTION AMONG ADOLESCENTS REPORTING BOTH SLEEP AND EXERCISE AFTER CONCUSSION	1. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 2. Corrine Seehusen, University of New England College of Osteopathic Medicine 3. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 4. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 5. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
151	PATIENT-REPORTED OUTCOMES DO NOT PREDICT TIME TO SUBSEQUENT INJURY AFTER CONCUSSION RETURN TO PLAY	1. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 2. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Casey Little, University of Virginia, University of Virginia School of Medicine 4. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 5. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
		colorado Ariscitutz Medical Campus, Autora, Co, Office States

# Scientific Posters

173	SLOWER SIMPLE REACTION TIME AFTER CONCUSSION RETURN- TO-PLAY PREDICTS HIGHER RISK OF SUBSEQUENT INJURY	1. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 2. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 4. Casey Little, University of Virginia, University of Virginia School of Medicine 5. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado
119	A MULTIFACETED APPROACH TO MEASURING REACTION TIME DEFICITS AFTER ADOLESCENT CONCUSSION	Alice Barnes, Sports Medicine Center, Children's Hospital Colorado 2. Katherine Smulligan,     Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO,     United States 3. Mathew Wingerson, Department of Orthopaedics, University of Colorado     Anschutz Medical Campus, Aurora, CO, United States 4. Casey Little, University of Virginia,     University of Virginia School of Medicine 5. Vipul Lugade, Division of Physical Therapy,     Binghamton University 6. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 7.     David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus,     Aurora, CO, United States
129	THE IMPACT OF RULE MODIFICATIONS ON YOUTH SOCCER CONCUSSIONS: A 10-YEAR REVIEW	I. James Messina, University of Connecticut Health Center 2. Ronak Mahatme, University of Connecticut Medical School 3. Annabelle Davey, University of Connecticut Health Center 4. Matthew Shuman, University of Connecticut Health Center 5. John Stelzer, University of Connecticut Health Center 6. Ian Wellington, University of Connecticut Health Center 7. Patrick Garvin, University of Connecticut Health Center 8. Allison Crepeau, Connecticut Childrens
175	HEAD KINEMATICS AND PHYSIOLOGICAL EFFECTS OF REPEATED SOCCER HEADING	1. Colin Huber, University of Pennsylvania and Children's Hospital of Philadelphia 2. Declan Patton, Children's Hospital of Philadelphia 3. Kathryn Rownd, Children's Hospital of Philadelphia 4. Christina Master, Children's Hospital of Philadelphia & University of Pennsylvania 5. Kristy Arbogast, Children's Hospital of Philadelphia and University of Pennsylvania
121	A COMPARISON OF INITIAL SYMPTOMS AND RECOVERY TIME IN CONCUSSION PATIENTS WITH AND WITHOUT SELF-REPORTED PSYCHIATRIC HISTORY	1. Abel Mathews, Children's Health Andrews Institute 2. August Price, Children's Health Andrews Institute 3. Sarah Boucher, University of Texas Southwestern 4. Christine Ellis, Children's Health Andrews Institute 5. Kimberly Williams, Children's Health Andrews Institute 6. John Abt, Children's Health Andrews Institute 7. Scott Burkhart, Children's Health Andrews Institute
140	MODERATE TO VIGOROUS PHYSICAL ACTIVITY IS ASSOCIATED WITH SYMPTOM RESOLUTION AFTER ADOLESCENT CONCUSSION	1. Jacob Rademacher, University of Colorado Anschutz Medical Campus 2. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 4. Casey Little, University of Virginia, University of Virginia School of Medicine 5. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 6. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
187	THE ASSOCIATION BETWEEN PHYSICAL ACTIVITY LEVELS AND MENTAL HEALTH OUTCOMES FOLLOWING CONCUSSION	1. Sarah Willwerth, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 2. Kelsey Griffith, The Micheli Center for Sports Injury Prevention 3. Michael O'Brien, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 4. William Meehan, Boston Children's Hospital 5. Jessie Oldham, Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University School of Medicine
142	CLINICAL COURSE OF RECOVERY FOR CONCUSSION PATIENTS AGED 4-8 YEARS	1. Alison Datoc, Children's Health Andrews Institute 2. August Price, Children's Health Andrews Institute 3. Abel Mathews, Children's Health Andrews Institute 4. Sarah Boucher, University of Texas Southwestern 5. Christine Ellis, Children's Health Andrews Institute 6. John Abt, Children's Health Andrews Institute 7. Scott Burkhart, Children's Health Andrews Institute
145	DIFFUSION TENSOR IMAGING IN A PEDIATRIC POPULATION WITH PERSISTENT POST CONCUSSIVE SYMPTOMS AFTER BRAIN INJURY UTILIZING A STANDARDIZED 3 TESLA MAGNETIC RESONANCE IMAGING PROTOCOL: A PILOT STUDY.	Saikaashyap Sarva, Rutgers Graduate School of Biomedical Sciences 2. Hector Preciado,     Universidad Autónoma de Guadalajara School of Medicine 3. Sarah Lawson, Midwestern     University 4. Eva Ramirez, SPARCC 5. Alicia Chen, Burrell College of Osteopathic Medicine 6.     Alejandro Quinones, Universidad Autónoma de Guadalajara School of Medicine 7. Milin Patel,     SPARCC 8. Leslie Streeter, SPARCC 9. Brett Dusenberry, SPARCC 10. Mo Mortazavi, SPARCC
169	UTILIZING MULTIPLE BIOMARKERS AS PREDICTORS FOR EXERCISE TOLERANCE IN CONCUSSED PEDIATRIC PATIENTS	1. Tyler Marx, Arizona College of Osteopathic Medicine 2. Alicia Chen, Burrell College of Osteopathic Medicine 3. Mo Mortazavi, SPARCC 4. Jon Minor, SPARCC 5. Hirsch Handmaker, CACTIS Foundation

182	THE INCIDENCE OF LOWER EXTREMITY MUSCULOSKELETAL INJURIES AFTER CONCUSSION AMONG ADOLESCENTS AND YOUNG ADULTS: AN ANALYSIS OF A NATIONAL MEDICAL CLAIMS DATABASE	Regina Kostyun, Hartford Healthcare Bone and Joint Institute 2. Carl Nissen, Hartford Healthcare Bone and Joint Institute 3. Matthew Solomito, Hartford Healthcare Bone and Joint Institute
135	PREDICTORS OF SPEECH LANGUAGE PATHOLOGY REFERRAL FOLLOWING CONCUSSION USING A SPEECH LANGUAGE CHECKLIST	1. Jessie Oldham, Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University School of Medicine 2. Barbara Lent, Children's Hospital of Richmond 3. John Loehner, Virginia Commonwealth University, VCU Health System 4. Steven Peretiatko, Virginia Commonwealth University, VCU Health System 5. Katherine Dec, Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University School of Medicine
165	EXERCISE, SYMPTOM SEVERITY, AND RETURN-TO-PLAY TIME AMONG PEDIATRIC ATHLETES: COMPARING CONCUSSIONS SUSTAINED DURING ACADEMIC AND SUMMER MONTHS	1. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 2. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Gregory Walker, Sports Medicine Center, Children's Hospital Colorado 4. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 5. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
DES	PARITIES IN ORTHOPAEDICS	
152	THE EFFECT OF SOCIOECONOMIC FACTORS ON DELAYS IN OBTAINING PEDIATRIC KNEE MRIS	Catherine Nacier, Alpert Medical School of Brown University 2. Emil Vutescu, Rhode Island Hospital & Brown University 3. Sebastian Orman, Rhode Island Hospital & Brown University 4. Michael Bergen, Rhode Island Hospital & Brown University 5. Matthew Quinn, Rhode Island Hospital & Brown University 6. James Albright, Alpert Medical School of Brown University 7. Molly Usher, Brown University 8. Aristides Cruz, Alpert Medical School of Brown University
DIV	ERISITY IN SPORTS MEDICINE AND ORTHOP	EDICS
136	REMOTE SUMMER PROGRAM TO IMPROVE DIVERSITY, EQUITY, AND INCLUSION IN PRIMARY CARE SPORTS AND ORTHOPAEDIC SURGERY: A PILOT STUDY	1. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine
ELB	OW	
185	DECREASED GLENOHUMERAL EXTERNAL ROTATION IS ASSOCIATED WITH ELBOW INJURY IN ADOLSCENT BASEBALL PITCHERS	1. Steven Karnyski, Cedars Sinai Kerlan Jobe Institute 2. William Haselman, Cedars Sinai Kerlan Jobe Institute 3. Michael Banffy, Cedars Sinai Kerlan Jobe Institute 4. Carlos Uquillas, Cedars Sinai Kerlan Jobe Institute
189	CONCURRENT ELBOW DISLOCATION IS THE PRIMARY PREDICTOR OF ADVERSE OUTCOME FOLLOWING OPERATIVE TREATMENT OF PEDIATRIC MEDIAL EPICONDYLE FRACTURES	1. Madison Brenner, Texas Scottish Rite Hospital for Children 2. Charles Wyatt, Scottish Rite for Children 3. Matthew Landrum, UT Southwestern Medical Center 4. Christine Ho, Texas Scottish Rite Hospital for Children 5. Henry Ellis, Texas Scottish Rite Hospital for Children 6. Philip Wilson, Texas Scottish Rite Hospital for Children
EXE	RTIONAL COMPARTMENT SYNDROME	
164	SURGICAL TREATMENT OF CHRONIC EXERTIONAL COMPARTMENT SYNDROME - A FLASH IN THE PAN?	1. Utkarsh Anil, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 2. Charles Lin, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 3. Zachariah Samuel, The CUNY School of Medicine 4. Cordelia Carter, New York University, New York University
167	EXERTIONAL COMPARTMENT SYNDROME IN PEDIATRIC PATIENTS: ANALYSIS OF THE ACS-NSQIP REGISTRY	1. Emily Larson, Johns Hopkins University School of Medicine 2. Meghana Bhimreddy, Johns Hopkins School of Medicine 3. Amy Xu, Johns Hopkins School of Medicine 4. Alexandra Dunham, Department of Orthopaedic Surgery, The Johns Hopkins University 5. Amiethab Aiyer, Department of Orthopaedic Surgery, The Johns Hopkins University
FEM	ALE ATHLETE	
158	TWO-THIRDS OF ADOLESCENT FEMALE ATHLETES EXPERIENCED DIFFERENT LEVELS OF ANXIETY OVER 16 WEEKS	1. Julie Young, Nationwide Children's Hospital 2. Drew Mohr, Tiffin University 3. Katherine Allison, Nationwide Children's Hospital 4. James Onate, The Ohio State University, College of Medicine 5. Amy Valasek, Nationwide Children's Hospital
FOC	DT/ANKLE	
183	CONTROLLED ANKLE MOVEMENT (CAM) BOOT PROVIDES IMPROVED OUTCOMES AND LOWER COMPLICATIONS THEN SHORT LEG WALKING CAST IN LOW ENERGY PEDIATRIC LATERAL ANKLE INJURIES: A PROSPECTIVE, RANDOMIZED STUDY	1. Jennifer Beck, UCLA, School of Medicine 2. Victoria Kang, UCLA, School of Medicine 3. Abbie Bennett, UCLA, School of Medicine 4. Summer Runestad, UCLA, School of Medicine 5. Nicholas Jackson, UCLA, School of Medicine



23

161	ACHILLES TENDON RUPTURES IN THE PEDIATRIC AND ADOLESCENT POPULATION	Leta Ashebo, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2.     Alexandra Stevens, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 3. Elle MacAlpine, Duke University Medical Center 4. Jocelyn Wittstein, Duke University Department of Orthopaedics 5. Kendall Bradley, Duke University Department of Orthopaedics 6. J. Todd Lawrence, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
INJ	URY PREVENTION	
127	REPORTED USAGE OF ANTERIOR CRUCIATE LIGAMENT INJURY PREVENTION PROGRAMS BY CERTIFIED ATHLETIC TRAINERS: A CROSS-SECTIONAL STUDY	Katherine Rizzone, University of Rochester Medical Center 2. Sarah Lander, University of Rochester Medical Center 3. Trevor Cramer, University of Rochester Medical Center 4. Sandeep Mannava, University of Rochester Medical Center 5. Stephanie MacDonald, University of Rochester Medical Center 6. Courtney Jones, University of Rochester Medical Center
154	OFTEN MISTAKEN BUT SELDOM UNCERTAIN: AN EXAMINATION OF INJURY PREVENTION KNOWLEDGE AND CONFIDENCE AMONG YOUTH SOCCER COACHES	1. Joseph Janosky, Hospital for Special Surgery
128	TOTAL AND CHANGE IN WEEKLY RUNNING DISTANCE WERE NOT ASSOCIATED WITH RUNNING-RELATED INJURIES AMONG HIGH SCHOOL CROSS COUNTRY RUNNERS	1. Mikel Stiffler-Joachim, University of Wisconsin-Madison 2. Stephanie Kliethermes, University of Wisconsin-Madison 3. Bryan Heiderscheit, University of Wisconsin-Madison
184	CONCURRENT VALIDITY OF THE EXPANDED CUTTING ALIGNMENT SCORING TOOL (E-CAST)	1. Lauren Butler, Nicklaus Children's Hospital 2. Alexa Martinez, Nicklaus Children's Hospital 3. Ashley Erdman, Scottish Rite for Children 4. Eryn Milian, University of Miami Miller School of Medicine 5. Dai Sugimoto, Waseda University 6. Alex Loewen, Scottish Rite for Children 7. Charles Wyatt, Scottish Rite for Children 8. Kristin Hayden-Hebert, Nicklaus Children's Hospital 9. Kirsten Tulchin-Francis, Nationwide Childrens Hospital 10. Amie DeVerna, Nicklaus Children's Hospital 11. Sophia Ulman, Scottish Rite for Children
160	INCREASED SINGLE LEG VERTICAL HOP ASYMMETRIES IN YOUTH ATHLETES WITH PRIOR KNEE INJURY HISTORY: CONSIDERATIONS FOR INJURY PREVENTION ASSESSMENT AND INTERVENTIONS	1. Jessica Dabis, Scottish Rite for Children 2. Ashley Erdman, Scottish Rite for Children 3. Rushi Patel, Scottish Rite for Children 4. Sophia Ulman, Scottish Rite for Children
162	ASSOCIATION BETWEEN INJURY HISTORY AND ATHLETIC IDENTITY IN ADOLESCENT ATHLETES	1. M. Minnat Choudhury, Scottish Rite for Children 2. Ashley Erdman, Scottish Rite for Children 3. Sophia Ulman, Scottish Rite for Children
191	RELIABILITY OF SEGMENTATION OF THE PROXIMAL, BELLY, AND DISTAL ASPECTS OF LOWER EXTREMITY MUSCULATURE	1. Alexis Slutsky-Ganesh, Emory Sports Performance And Research Center (SPARC) 2. Jake Slaton, Emory Sports Performance And Research Center (SPARC) 3. Melanie Valencia, Emory Sports Performance And Research Center (SPARC) 4. Jed Diekfuss, Emory Sports Performance And Research Center (SPARC) 5. Taylor Zuleger, Emory Sports Performance And Research Center (SPARC) 6. Shayla Warren, Emory Sports Performance And Research Center (SPARC) 7. Augustin Ogier, Lausanne University Hospital/University of Lausanne 8. Kim Barber Foss, Emory Sports Performance And Research Center (SPARC) 9. Gregory Myer, Emory Sports Performance And Research Center (SPARC)
MEI	NISCUS	
130	KNEE BONY MORPHOLOGY VARIATIONS IN PATIENTS WITH LATERAL DISCOID MENISCUS COMPARED TO ASYMPTOMATIC HEALTHY CONTROLS	1. Shankar Kaushal, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 2. Danilo Menghini, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 3. Ryan Sanborn, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 4. Dennis Kramer, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 5. Mininder Kocher, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 6. Ata Kiapour, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine
125	MENISCUS ROOT ANATOMY: IMPLICATIONS FOR ROOT REPAIR AND MENISCUS ALLOGRAFT TRANSPLANTATION IN THE SKELETALLY IMMATURE	1. Stockton Troyer, Washington University School of Medicine 2. Matthew Rohde, Department of Orthopaedic Surgery, Stanford University School of Medicine 3. Jonathan Joyner, University of Nevada, Reno School of Medicine 4. Keinan Agonias, Texas Scottish Rite Hospital for Children 5. Henry Ellis, Texas Scottish Rite Hospital for Children 6. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 7. Molly Meadows, Stanford Children's Health, Children's Orthopaedic and Sports Medicine Center 8. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine

MEI	NTAL HEALTH & SLEEP	
179	FACTORS INFLUENCING SLEEP QUALITY IN ADOLESCENT FEMALE ATHLETES	1. Julie Young, Nationwide Children's Hospital 2. Amy Valasek, Nationwide Children's Hospital 3. Katherine Allison, Nationwide Children's Hospital 4. James Onate, The Ohio State University, College of Medicine
МО	TION ANALYSIS	
159	THE EFFECT OF A SIX-WEEK HIP AND CORE STRENGTHENING PROGRAM ON SHOULDER AND ELBOW FORCES AND PITCH VELOCITY IN ADOLESCENT BASEBALL PITCHERS	1. Andrew Golz, Cedars Sinai Kerlan Jobe Institute 2. Daniel Howard, Cedars Sinai Kerlan Jobe Institute 3. Karen Ladnier, Cedars Sinai Kerlan Jobe Institute 4. Brooke Bergeron, Cedars Sinai Kerlan Jobe Institute 5. Arnel Aguinaldo, Point Loma University 6. Brian Schulz, Cedars Sinai Kerlan Jobe Institute 7. Orr Limpisvasti, Cedars Sinai Kerlan Jobe Institute 8. Neal ElAttrache, Cedars Sinai Kerlan Jobe Institute
148	ADOLESCENT RUNNING BIOMECHANICS DURING PEAK HEIGHT VELOCITY	1. Kristin Whitney, Boston Children's Hospital 2. Pierre d'Hemecourt, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 3. Andrea Stracciolini, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 4. William Meehan, Boston Children's Hospital 5. Alexandra DeJong Lempke, Boston Children's Hospital
KNI		
176	MECHANICAL PROPERTIES OF PEDIATRIC ACL, PCL, AND THE QUADRICEP TENDON GRAFTS	Marcel Sanchez, Stanford University School of Medicine, Stanford School of Medicine 2.     Anshal Gupta, Stanford University, Department of Pediatric Orthopedics 3. Hunter Storaci, Stanford University School of Medicine, Stanford School of Medicine 4. Matthew Rohde, Department of Orthopaedic Surgery, Stanford University School of Medicine 5. Seth Sherman, Stanford University Orthopaedic Surgery 6. Henry Ellis, Texas Scottish Rite Hospital for Children 7. Marc Tompkins, University of Minnesota, Department of Orthopaedic Surgery 8. Philip Wilson, Texas Scottish Rite Hospital for Children 9. Daniel Green, Hospital for Special Surgery 10. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 11. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine
141	LATERAL FEMORAL CONDYLE CHONDRAL FRAGMENT SWELLS OVER TIME IN ISOTONIC SOLUTION	1. Carver Montgomery, LSU Health Sciences Center 2. Wayne Scalisi, LSU Health Sciences Center 3. Rachel Kushner, LSU Health Sciences Center 4. James Robinson, LSU Health Sciences Center 5. R. Barton, LSU Health Sciences Center 6. Patrick Massey, LSU Health Sciences Center
113	WHAT FACTORS AFFECT COMPLIANCE WITH A PRESCRIBED REHABILITATION PROGRAM IN PEDIATRIC PATIENTS WITH OSTEOCHONDRITIS DISSECANS OF THE KNEE?	1. James Alfano, Children's Hospital of Philadelphia 2. Elliot Greenberg, The Children's Hospital of Philadelphia 3. Alexandra Stevens, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 4. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
170	POSTERIOR CRUCIATE LIGAMENT INJURY IN CHILDREN AND ADOLESCENTS - TREATMENT AND OUTCOMES	1. Morgan Batley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2. Katherine Ashe, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 3. Kathleen Maguire, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 4. Brendan Williams, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
OPI	ATES	
174	DOES BUPIVACAINE LIPOSOME INJECTABLE SUSPENSION FURTHER AID IN DECREASING AT-HOME NARCOTIC UTILIZATION IN CHILDREN AND ADOLESCENTS FOLLOWING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION: A PRELIMINARY REPORT	1. John Schlechter, CHOC Children's Hospital 2. Evelyn Thomas, CHOC Children's Hospital 3. Halle Walls, CHOC Children's Hospital 4. Zeev Kain, University of California Irvine
	ICOME MEASURES	
115	THE ASSOCIATION OF CURRENT SPORT PARTICIPATION ON THE HEALTH OF ADOLESCENT ATHLETES - A PILOT STUDY	Timothy McGuine, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation 2. Kevin Biese, University of Wisconsin-Madison 3. SAMUEL MOSIMAN, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation
	ALYMPIC	
181	EXPLORATION OF PEDIATRIC LIFE SATISFACTION, PAIN INTERFERENCE, AND PARTICIPATION IN YOUTH ADAPTIVE ATHLETES	1. Jonathan Napolitano, Nationwide Children's Hospital 2. Erika Kemp, Ohio State University 3. Kate Buchanan, Ohio State University 4. Jessica Hoehn, Nationwide Childrens Hospital 5. Daniela Iliescu, Ohio State University and Wexner Medical Center 6. Carlie Meyer, Ohio State University 7. Theresa Berner, Ohio State University and Wexner Medical Center 8. Kristen Jackson, Ohio State University and Wexner Medical Center

25



PAT	ELLOFEMORAL INSTABILITY	
138	RELIABILITY AND VALIDITY OF AN ULTRASOUND DERIVED MEASURE OF AXIAL PATELLOFEMORAL ALIGNMENT	1. Elliot Greenberg, The Children's Hospital of Philadelphia 2. Naomi Brown, The Children's Hospital of Philadelphia 3. Megan Barnes, The Children's Hospital of Philadelphia 4. Eugene Palatulan, University of Pennsylvania 5. Brendan Williams, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
139	NON-OPERATIVE MANAGEMENT OF FIRST-TIME PATELLAR DISLOCATION IN THE PEDIATRIC POPULATION: RISK OF RECURRENCE AND FUNCTIONAL OUTCOMES	1. Soroush Baghdadi, Children's Hospital of Philadelphia 2. Alexandria Debasitis, Children's Hospital at Montefiore 3. Kathryn Segal, Children's Hospital at Montefiore Medical Center 4. Leila Mehraban Alvandi, Children's Hospital at Montefiore 5. Eric Fornari, Children's Hospital at Montefiore Medical Center
156	CONCOMITANT ANTERIOR MEDIALIZING OSTEOTOMY AND MPFL RECONSTRUCTION IMPROVES PATELLA TILT WHEN COMPARED TO MPFL RECONSTRUCTION ALONE: A RETROSPECTIVE COMPARISON COHORT STUDY OF PATIENTS WITH ELEVATED TT-TG	1. Nicolas Pascual-Leone, Hospital for Special Surgery 2. Danielle Chipman, Hospital for Special Surgery 3. Blake Meza, Hospital for Special Surgery 4. Peter Fabricant, Hospital for Special Surgery 5. Daniel Green, Hospital for Special Surgery
131	HOW TT-TG CAN CHANGE WITH TIME AND THROUGH THE KNEE ROTATION: AN ANALYSIS OF SEQUENTIAL MRIS OF PFI PATIENTS AND A CADAVERIC KNEE STUDY	1. Nicolas Pascual-Leone, Hospital for Special Surgery 2. Danielle Chipman, Hospital for Special Surgery 3. Amirhossein Jahandar, Hospital for Special Surgery 4. Ryann Davie, Hospital for Special Surgery 5. Joshua Bram, Hospital for Special Surgery 6. Douglas Mintz, Hospital for Special Surgery 7. Peter Fabricant, Hospital for Special Surgery 8. Carl Imhauser, Hospital for Special Surgery 9. Daniel Green, Hospital for Special Surgery
168	SEX DIFFERENCES IN PATELLAR ANATOMY AND DEVELOPMENT	1. Kirsten Norrell, Lucile Packard Children's Hospital at Stanford University 2. Matthew Rohde, Department of Orthopaedic Surgery, Stanford University School of Medicine 3. Nicole Segovia, Department of Orthopaedic Surgery, Stanford University School of Medicine 4. Sal Ayala, Uinversity of Illinois at Chicago 5. Shital Parikh, Cincinnati Children's Hospital Medical Center 6. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 7. Marc Tompkins, University of Minnesota, Department of Orthopaedic Surgery 8. Henry Ellis, Texas Scottish Rite Hospital for Children 9. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine
146	PATELLA ALTA PRESENTS AS YOUNG AS 8 YEARS OF AGE AND DOES NOT BECOME MORE COMMON DURING ADOLESCENCE	1. Nikhil Patel, University of Michigan Medical School 2. Sameer Oak, University of Michigan Department of Orthopaedic Surgery 3. Kelly Rogers, University of Michigan Department of Orthopaedic Surgery 4. Eileen Crawford, University of Michigan Department of Orthopaedic Surgery
RES	EARCH EDUCATION	
133	BARRIERS AND FACILITATORS OF RESEARCH IN PEDIATRIC SPORTS MEDICINE PRACTITIONERS	1. Dai Sugimoto, Waseda University 2. Michael Del Bel, University of Ottawa 3. Lauren Butler, Nicklaus Children's Hospital
SHC	DULDER INSTABILITY	
190	ACCURACY OF ANATOMICALLY-GUIDED GLENOHUMERAL JOINT INJECTIONS USING THE GLENOHUMERAL ACROMIOCLAVICULAR PORTAL (GAP) TECHNIQUE: A PILOT STUDY.	1. Majaliwa Mzombwe, University of Miami/Jackson Health System PM&R Program 2. Alex Cole, University of Miami Miller School of Medicine, University of Miami Miller School of Medicine 3. Javier Santana De Los Santos, University of Miami/Jackson Health System PM&R Program 4. Doug Broadfield, University of Miami Miller School of Medicine, University of Miami Miller School of Medicine, University of Miami Miller School of Medicine, University of Miami Miller School of Medicine
126	TRAUMATIC ANTERIOR SHOULDER INSTABILITY IN YOUNGER ADOLESCENTS RESULTS IN A HIGHER INCIDENCE OF ATYPICAL INJURY	1. Holt Cutler, Texas Scottish Rite Hospital for Children 2. Peter Cannamela, Texas Scottish Rite Hospital for Children 3. Garrett Sohn, Texas Scottish Rite Hospital for Children 4. Charles Wyatt, Scottish Rite for Children 5. Henry Ellis, Texas Scottish Rite Hospital for Children 6. Philip Wilson, Texas Scottish Rite Hospital for Children
SPC	PRTS SPECIALIZATION	
157	PLAY, LIFESTYLE, AND ACTIVITY IN YOUTH WITH CEREBRAL PALSY	1. Andrea Stracciolini, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 2. Kathryn Williams, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 3. Rachel Tombeno, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 4. Katherine Koritz, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 5. Erin Patisteas, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 6. Becky Parmeter, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine

108	IDENTIFYING LINKS BETWEEN ATHLETIC IDENTITY AND SPECIALIZATION IN ADOLESCENT ATHLETES	M. Minnat Choudhury, Scottish Rite for Children 2. Ashley Erdman, Scottish Rite for Children 3.     Sophia Ulman, Scottish Rite for Children
163	THE ASSOCIATION OF SPORTS SPECIALIZATION AND SPORT VOLUME WITH SERIOUS KNEE INJURIES IN YOUNG ATHLETES	Timothy McGuine, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation 2. Pamela Lang, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation 3. Caleb Ganansky, University of Wisconsin-Madison 4. Jackson Hoang, University of Wisconsin-Madison 5. SAMUEL MOSIMAN, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation
192	INVESTIGATING ASSOCIATIONS BETWEEN YOUTH SPORT FAMILIES' SOCIODEMOGRAPHIC CHARACTERISTICS, SPORT PARTICIPATION BEHAVIORS, AND PERCEPTIONS OF YOUTH SPORT SPECIALIZATION	1. Justin DiSanti, Duquesne University 2. Amanda Black, Sport Injury Prevention Centre, Faculty of Kinesiology, University of Calgary 3. Lauren Butler, Nicklaus Children's Hospital 4. Allison Crepeau, Connecticut Childrens 5. Jane Chung, Texas Scottish Rite Hospital for Children 6. Shelly Fetchen-DiCesaro, University of Pittsburgh 7. Joseph Janosky, Hospital for Special Surgery 8. Eric Post, Indiana State University 9. James Russomano, Hospital for Special Surgery 10. Jonathan Santana, Texas Children's Hospital 11. Troy Smurawa, Children's Health Andrews Institute 12. Tamara Valovich McLeod, A.T. Still University
TIBI	AL SPINE	
120	GROWTH DISTURBANCE AFTER SURGICAL TREATMENT OF PEDIATRIC TIBIAL SPINE FRACTURE: RESULTS FROM A MULTICENTER COHORT	1. Ryan O'Donnell, Alpert Medical School of Brown University 2. Nicholas Lemme, Alpert Medical School of Brown University 3. Lauren Piana, Alpert Medical School of Brown University 4. Dillon Artigliere, Alpert Medical School of Brown University 5. Gregory Schmale, Seattle Children's Hospital 6. Scott McKay, Texas Children's Hospital 7. Daniel Green, Hospital for Special Surgery 8. Neeraj Patel, Ann & Robert H. Lurie Children's Hospital of Chicago, Feinberg School of Medicine Northwestern University 9. Peter Fabricant, Hospital for Special Surgery 10. Soroush Baghdadi, Children's Hospital of Philadelphia 11. Henry Ellis, Texas Scottish Rite Hospital for Children 12. Aristides Cruz, Alpert Medical School of Brown University
188	TIBIAL SPINE FRACTURE VERSUS ACL TEAR: DOES BASELINE KNEE HYPEREXTENSION PREDISPOSE TO INJURY TYPE OR POSTOPERATIVE STIFFNESS?	1. Patrick England, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2. Joseph Yellin, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 3. Michael Carter, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 4. Ryan Guzek, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 5. Brendan Williams, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 6. J. Todd Lawrence, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 7. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 8. Kathleen Maguire, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
ULT	RASOUND	
143	EVALUATING FEMOROACETABULAR POSTERIOR TRANSLATION WITH DYNAMIC HIP ULTRASONOGRAPHY	1. Hung Le, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 2. Pierre d'Hemecourt, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 3. Sarah Jackson, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 4. Kristin Whitney, Boston Children's Hospital 5. Michael Millis, Boston Children's Hospital 6. Thomas Wuerz, New England Baptist Hospital 7. Ata Kiapour, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine 8. Cara Lewis, Boston University School of Medicine 9. Andrea Stracciolini, Boston Children's Hospital, Department of Orthopedic Surgery & Sports Medicine
134	ULTRASONOGRAPHIC HUMERAL RETROVERSION COMPARISONS IN YOUTH GYMNASTS	Jacob Jones, Texas Scottish Rite Hospital for Children 2. Diana Chen, Texas Scottish Rite     Hospital for Children 3. I-Yuan Joseph Chang, Texas Scottish Rite Hospital for Children 4. Hamza     Alizai, Children's Hospital of Philadelphia 5. Henry Ellis, Texas Scottish Rite Hospital for Children     6. Philip Wilson, Texas Scottish Rite Hospital for Children



27

## E Posters

ACL		
233	BASELINE BIOMECHANICAL GENDER DIFFERENCES AND ACL SURGERY IN ADOLESCENT ATHLETES: A RETROSPECTIVE MOTION ANALYSIS STUDY	1. Neeraj Vij, University of Arizona College of Medicine - Phoenix 2. Sailesh Tummala, Mayo Clinic Scottsdale 3. Amber Brennan, Phoenix Children's Hospital 4. Jenni Winters, Phoenix Children's Hospital 5. Hadi Salehi, University of Arizona, College of Medicine 6. Kaycee Glattke, Mayo Clinic Scottsdale 7. Joseph Brinkman, Mayo Clinic Scottsdale 8. Anikar Chhabra, Mayo Clinic Scottsdale 9. Hamy Temkit, Phoenix Children's Hospital 10. Heather Menzer, Phoenix Children's Hospital / Mayo Clinic 11. Jeffrey Vaughn, Phoenix Children's Hospital / Mayo Clinic
204	FINANCIAL BURDEN OF PEDIATRIC ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION	1. Amy Xu, Johns Hopkins School of Medicine 2. Frederick Mun, Johns Hopkins University School of Medicine 3. Arjun Gupta, Johns Hopkins University School of Medicine 4. Adam Margalit, Johns Hopkins University School of Medicine 5. Niyathi Prasad, Johns Hopkins University School of Medicine 6. R. Jay Lee, Johns Hopkins University School of Medicine
205	EARLY OUTCOMES AND COMPLICATIONS OF ACL RECONSTRUCTION WITH SUTURE TAPE AUGMENTATION	Jeffrey Shroff, University of Connecticut Health Center 2. Philip Hanna, University of Connecticut Health Center 3. Adam Weaver, Connecticut Childrens 4. Allison Crepeau, Connecticut Childrens
238	FACTORS EFFECTING PATIENT REPORTED QUALITY OF LIFE AND PHYSICAL FUNCTION DURING RECOVERY FOLLOWING ACL RECONSTRUCTION IN YOUTH ATHLETES: DATA FROM A PROSPECTIVE REGISTRY	Pamela Lang, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation 2. CALEB GANASKY, University of Wisconsin Madison School of Medicine and Public Health 3. SAMUEL MOSIMAN, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation 4. Timothy McGuine, University Of Wisconsin-Madison, Department of Orthopedics and Rehabilitation
218	DOES LIMB TESTING ORDER MATTER FOR RETURN-TO-ACTIVITY ASSESSMENTS IN ADOLESCENTS WITH ACL INJURY?	1. Céline Girard, University of Ottawa 2. Joana Hornestam, Children's Hospital of Eastern Ontario 3. Farid Ali, University of Ottawa 4. Michael Del Bel, University of Ottawa 5. Nicholas Romanchuk, University of Ottawa 6. Sasha Carsen, Children's Hospital of Eastern Ontario 7. Daniel Benoit, University of Ottawa
211	THE LATERAL FEMORAL NOTCH SIGN DECREASES IN PEDIATRIC PATIENTS FOLLOWING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION	1. Nicolas Pascual-Leone, Hospital for Special Surgery 2. Danielle Chipman, Hospital for Special Surgery 3. Douglas Mintz, Hospital for Special Surgery 4. Frank Cordasco, Hospital for Special Surgery 5. Peter Fabricant, Hospital for Special Surgery 6. Daniel Green, Hospital for Special Surgery
242	REHABILITATION PHASE DOES NOT INFLUENCE ISOKINETIC QUADRICEPS AND HAMSTRINGS STRENGTH SYMMETRY FOLLOWING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION	Michelle Walaszek, University of Virginia 2. Katherine Collins, Michigan State University 3.     Francesca Genoese, Michigan State University 4. Elaine Reiche, University of North Carolina at Chapel-Hill 5. Ashley Triplett, Michigan State University 6. Matthew Harkey, Michigan State University 7. Shelby Baez, University of North Carolina - Chapel Hill 8. Michael Shingles, Sparrow Health System 9. Chris Kuenze, University of Virginia
219	SINGLE LEG VERTICAL JUMP HEIGHT NORMATIVE VALUES IN 10- TO 15-YEAR-OLD BASKETBALL PLAYERS	1. Jacob Landers, Texas Scottish Rite Hospital for Children 2. Ashley Erdman, Scottish Rite for Children 3. Laura Saleem, Scottish Rite for Children 4. Katie Holehouse, Texas Scottish Rite Hospital for Children 5. Sophia Ulman, Scottish Rite for Children
224	OUTCOMES OF ALLOGRAFT ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION IN ADOLESCENT PATIENTS	1. Rajiv Vasudevan, Rady Children's Hospital 2. Andrew Zogby, Rady Children's Hospital 3.  Tracey Bastrom, Rady Children's Hospital 4. Tyler Paras, Rady Children's Hospital 5. Tyler Wilps, Rady Children's Hospital 6. Andrew Pennock, Rady Children's Hospital, Division of Orthopaedic Surgery,
CON	ACUSSION	
200	POSITION COMPARISON OF SPORT-RELATED CONCUSSIONS IN FEMALE YOUTH SOCCER PLAYERS	1. Hannah Worrall, Texas Scottish Rite Hospital for Children 2. Caroline Podvin, Texas Scottish Rite Hospital for Children 3. Claire Althoff, Texas Scottish Rite Hospital for Children 4. Shane Miller, Texas Scottish Rite Hospital for Children 5. Jane Chung, Texas Scottish Rite Hospital for Children 6. Mathew Stokes, Texas Scottish Rite Hospital for Children 7. Dai Sugimoto, Waseda University 8. Luke Radel, Mayo Clinic College of Medicine and Science 9. C. Munro Cullum, UT Southwestern School of Medicine 10. Jacob Jones, Texas Scottish Rite Hospital for Children
201	HIGH EXERCISE VOLUME AFTER ADOLESCENT CONCUSSION IS ASSOCIATED WITH IMPROVED SLEEP	1. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 2. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 4. Casey Little, University of Virginia, University of Virginia School of Medicine 5. Stacey Simon, Children's Hospital Colorado 6. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado

## **E** Posters

202	THE INFLUENCE OF CONCUSSION HISTORY ON DUAL-TASK PERFORMANCE USING A SMARTPHONE-BASED EVALUATION IN ADOLESCENTS	1. Marc Heronemus, University of Colorado Anschutz Medical Campus 2. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Samantha Magliato, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 4. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 5. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 6. Vipul Lugade, Division of Physical Therapy, Binghamton University 7. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
203	NEUROVASCULAR COUPLING IN ACUTELY CONCUSSED PEDIATRIC PATIENTS	Patricia Roby, Center for Injury Research & Prevention, Children's Hospital of Philadelphia     Anne Mozel, Center for Injury Research & Prevention, Children's Hospital of Philadelphia     Christina Master, Children's Hospital of Philadelphia & University of Pennsylvania     Arbogast, Children's Hospital of Philadelphia and University of Pennsylvania
234	THE ASSOCIATION BETWEEN SOCIODEMOGRAPHIC VARIABLES AND BASELINE CONCUSSION TESTING IN HIGH SCHOOL AND MIDDLE SCHOOL ATHLETES	1. Liga Kreitner, Mayo Clinic 2. Eric Crowley, Mayo Clinic 3. Amy Weaver, Mayo Clinic 4. Chung-Il Wi, Mayo Clinic 5. David Soma, Mayo Clinic
236	5P RISK SCORE AS A PREDICTOR OF PHYSICAL ACTIVITY AND EXERCISE IN ADOLESCENTS WITH CONCUSSION	1. Julie Wilson, Sports Medicine Center, Children's Hospital Colorado 2. Mathew Wingerson, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 3. Casey Little, University of Virginia, University of Virginia School of Medicine 4. Katherine Smulligan, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 5. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
229	CONTINUATION OF PLAY FOLLOWING CONCUSSION AND SYMPTOM BURDEN IN ADOLESCENT ATHLETES	Sarah Willwerth, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 2. Michael O'Brien, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 3. William Meehan, Boston Children's Hospital 4. Jessie Oldham, Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University School of Medicine
243	AUTONOMIC PUPILLARY LIGHT REFLEX (PLR) MARKERS IN PEDIATRIC PATIENTS AFTER MILD TRAUMATIC BRAIN INJURY (MTBI)	Alicia Chen, Burrell College of Osteopathic Medicine 2. Tyler Marx, Arizona College of Osteopathic Medicine 3. Saikaashyap Sarva, Rutgers Graduate School of Biomedical Sciences     A. Mo Mortazavi, SPARCC 5. Kate Paulsen, University of Iowa 6. Arvind Balaji, SPARCC 7. Brett Dusenberry, SPARCC 8. James Dill, SPARCC 9. Cindy Ong, SPARCC 10. Leslie Streeter, SPARCC 11. Leila Samsam, SPARCC 12. Jaden Bailey, SPARCC 13. Tanya Polec, SPARCC 14. Hector Rieiro, SPARCC 15. Jon Minor, SPARCC
215	EXERCISE STEP TEST IN PEDIATRIC CONCUSSION CLINICAL CARE	Matthew Grady, Children's Hospital of Philadelphia & University of Pennsylvania 2. Eileen Storey, Children's Hospital of Philadelphia 3. Olivia Podolak, Children's Hospital of Philadelphia 4. Lindsey Calandra, The Children's Hospital of Philadelphia 5. Katherine Easby, The Children's Hospital of Philadelphia 6. Christina Master, Children's Hospital of Philadelphia & University of Pennsylvania
EPIC	DEMIOLOGY	
225	THE IMPACT OF PHTHALATE EXPOSURE ON CARDIORESPIRATORY FITNESS IN A NATIONALLY REPRESENTATIVE ADOLESCENT POPULATION	Alexandra Selberg, Division of Cardiology, Massachusetts General Hospital 2. DayIn Gillentine,     BronxCare Health System, Division of Population Health, Bronx, New York, United States 3.     Leonardo Trasande, Department of Pediatrics, NYU Grossman School of Medicine
EXE	RTIONAL COMPARTMENT SYNDROME	
244	A NOVEL TECHNIQUE FOR CONTINUOUS INTRACOMPARTMENTAL PRESSURE MONITORING IN THE DIAGNOSIS OF CHRONIC EXERTIONAL COMPARTMENT SYNDROME IN THE ADOLESCENT POPULATION	1. Simon Martel, McGill University Health Centre and Shriners Hospitals for Children 2. Thierry Pauyo, McGill University, Shriners Hospitals for Children - Canada
INJU	JRY PREVENTION	
209	YOUTH ATHLETE INJURIES VARY ACCORDING TO SKELETAL MATURITY AS MEASURED BY PREDICTED PERCENTAGE OF ADULT HEIGHT	1. Stephanie Logterman, Arnold Palmer Hospital for Children 2. Stacey Schley, Emory University Department of Orthopaedics 3. Ally Render, Emory University Department of Orthopaedics 4. Jeffrey Webb, Emory University Department of Orthopaedics 5. Neeru Jayanthi, Emory University Department of Orthopaedics
232	ASSOCIATION BETWEEN THE DEGREE OF FOOT-LIMB DOMINANCE AND LOWER LIMB NEUROMUSCULAR ASYMMETRY IN ADOLESCENT SOCCER PLAYERS	1. Sarp Sahin, Scottish Rite for Children 2. Mitchell Ekdahl, Scottish Rite for Children 3. Ashley Erdman, Scottish Rite for Children 4. Alex Loewen, Scottish Rite for Children 5. Sophia Ulman, Scottish Rite for Children



## E Posters

KNE	E	
208	GRADING PRONE KNEE FLEXION DURING THE PHYSICAL EXAMINATION OF THE ADOLESCENT KNEE	1. Evelyn Thomas, CHOC Children's Hospital 2. David Brethouwer, Children's Hospital of Orange County 3. Robin Beauregard, Children's Hospital of Orange County 4. John Schlechter, CHOC Children's Hospital
206	MEDIAL PATELLOFEMORAL LIGAMENT RECONSTRUCTION IS SAFE IN THE SKELETALLY IMMATURE PATIENT BUT IS THE REDUCTION IN PATELLA HEIGHT ALL JUST NORMAL GROWTH?	1. Julia Kirby, Texas Scottish Rite Hospital for Children 2. Madison Brenner, Texas Scottish Rite Hospital for Children 3. Hunter Jones, UT Southwestern Medical Center 4. Philip Wilson, Texas Scottish Rite Hospital for Children 5. Henry Ellis, Texas Scottish Rite Hospital for Children
227	MANAGEMENT OF JUVENILE OSTEOCHONDRITIS DISSECANS OF THE KNEE AMONST ABOS PART II CANDIDATES	1. Steven Karnyski, Cedars Sinai Kerlan Jobe Institute 2. William Haselman, Cedars Sinai Kerlan Jobe Institute 3. Lia Sepanek, Cedars Sinai Kerlan Jobe Institute 4. Carlos Uquillas, Cedars Sinai Kerlan Jobe Institute
239	LET'S GET REAL! WHAT DOES REHABILITATION LOOK LIKE FOR KIDS FOLLOWING SURGERY FOR OSTEOCHONDRITIS DISSECANS?	1. Elliot Greenberg, The Children's Hospital of Philadelphia 2. James Alfano, Children's Hospital of Philadelphia 3. Alexandra Stevens, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 4. Theodore Ganley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery
226	EVALUATION OF A NEW HYDROGEL COATED SUTURE ON BOVINE MENISCAL TEAR REPAIR	1. Stéphanie Lamer, University of Montreal 2. Zhenwei Ma, McGill University 3. David Mazy, University of Montreal 4. Christopher Chung-Tze-Cheong, McGill University 5. Alexander Nguyen, McGill University 6. Jianyu Li, McGill University 7. Marie-Lyne Nault, CHU Ste-Justine (University of Montreal)
230	ARE MENISCUS REPAIRS PERFORMED EARLIER THAN MENISCECTOMIES WITH A CONCURRENT ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION?	1. Zachariah Samuel, The CUNY School of Medicine 2. Charles Lin, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 3. Utkarsh Anil, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 4. Joie Cooper, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 5. Cordelia Carter, New York University, New York University
237	QUADRICEPS TIGHTNESS AND INCREASED POSTERIOR TIBIAL SLOPE IN ADOLESCENTS WITH OSGOOD-SCHLATTER DISEASE: A RETROSPECTIVE COHORT STUDY	1. Elise Bixby, Columbia University Irving Medical Center 2. Kyle McCormick, Columbia University Irving Medical Center 3. Sohil Desai, Columbia University Irving Medical Center 4. Rifat Ahmed, Columbia University Irving Medical Center 5. Charles Popkin, Columbia University Irving Medical Center 6. Natasha Trentacosta, Cedars-Sinai Medical Center 7. Lauren Redler, Columbia University Irving Medical Center
ORI	THOBIOLOGICS	
221	A STEPWISE REPLICABLE APPROACH TO NEGOTIATING VALUE-DRIVEN SUPPLY CHAIN CONTRACTS FOR ORTHOBIOLOGICS	1. Anshal Gupta, Stanford University, Department of Pediatric Orthopedics 2. James Lee, Stanford Healthcare, Division of Supply Chain Management 3. Amanda Chawla, Stanford Healthcare, Division of Supply Chain Management 4. Vignesh Rajagopalan, Stanford Healthcare, Division of Supply Chain Management 5. Michael Kohler, Stanford Healthcare, Division of Supply Chain Management 6. Brandon Moelling, Stanford Healthcare, Division of Supply Chain Management 7. Kelly McFarlane, Stanford University, Department of Pediatric Orthopedics 8. Kunj Sheth, Stanford University, Department of Pediatric Surgery 9. John Ratliff, Stanford University, Department of Neurosurgery 10. Serena Hu, Stanford University, Department of Orthopaedic Surgery 11. James Wall, Stanford University, Department of Pediatric Surgery 12. Kevin Shea, Department of Orthopaedic Surgery, Stanford University School of Medicine
OUT	COME MEASURES	
241	DISORDERED EATING AND COMPULSIVE EXERCISE BEHAVIORS: ASSOCIATIONS WITH QUALITY OF LIFE AMONG ADOLESCENT ATHLETES	1. Kiley Cappetta, University of Colorado   Anschutz Medical Campus 2. Karin VanBaak, University of Colorado   Anschutz Medical Campus 3. Corrine Seehusen, University of New England College of Osteopathic Medicine 4. Amanda McCarthy, Sports Medicine Center, Children's Hospital Colorado 5. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States 6. Aubrey Armento, Sports Medicine Center, Children's Hospital Colorado
PAR	ALYMPIC	
207	A REPORT OF OUR INSTITUTIONAL PROGRAM: ADAPTIVE SPORTS ACADEMY FOR PEDIATRIC PATIENTS	Danielle Chipman, Hospital for Special Surgery 2. Jessica Parise, Hospital for Special Surgery 3. Jennifer Jezequel, Hospital for Special Surgery 4. Lorene Janowski, Hospital for Special Surgery 5. John Denneen, Hospital for Special Surgery 6. Karen Onel, Hospital for Special Surgery 7. Roger Widmann, Hospital for Special Surgery 8. David Scher, Hospital for Special Surgery 9. Lisa Ipp, Hospital for Special Surgery

PAT	ELLOFEMORAL INSTABILITY	
228	MRI EVALUATION OF PEDIATRIC KNEE MORPHOLOGY	1. Yuhang Sun, Cedars Sinai Kerlan Jobe Institute 2. Abigail Campbell, Cedars Sinai Kerlan Jobe Institute 3. William Haselman, Cedars Sinai Kerlan Jobe Institute 4. Carlos Uquillas, Cedars Sinai Kerlan Jobe Institute
240	THE TIBIAL TUBERCLE APOPHYSIS AND PATELLA INSTABILITY: A RADIOLOGICAL STUDY	1. Elizabeth Garcia, Perth Children's Hospital 2. Caoilfhionn Ni Leidhin, Perth Children's Hospital 3. Michael Mason, Perth Children's Hospital 4. Peter Annear, Perth Children's Hospital
213	SOFT TISSUE PATELLA TENDON DISTALISATION IN THE SKELETALLY IMMATURE PATIENT: A NEW TECHNIQUE AND CASE SERIES	1. Elizabeth Garcia, Perth Children's Hospital 2. Sarah Van Oudtshoorn, Perth Children's Hospital 3. Jay Ebert, University of Western Australia, University of Western Australia 4. Peter Annear, Perth Children's Hospital
214	TROCHLEOPLASTY UTILIZATION IN THE MANAGEMENT OF PATELLOFEMORAL INSTABILITY - AN INTERNATIONAL SURVEY OF SURGEONS	1. Brendan Williams, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2.  Morgan Batley, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 3. John Schlechter, CHOC Children's Hospital 4. Moshe Yaniv, Dana Dwek Children's Hospital - Tel Aviv Sourasky Medical Center 5. Patellofemoral Research Interest Group, Pediatric Research in Sports Medicine Society 6. James Pace, Children's Health Andrews Institute
SPO	RTS ATTRITION	
245	SPORT PARTICIPATION LEVELS AMONG NEW YORK CITY'S KIDS REMAIN LOW 18 MONTHS AFTER THE ONSET OF THE COVID-19 PANDEMIC	1. Cordelia Carter, New York University, New York University 2. Sandra Jeong, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 3. Arianne Salunga, Touro College of Osteopathic Medicine 4. Mara Karamitopoulos, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health 5. Joie Cooper, Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health
SPO	RTS SPECIALIZATION	
235	ASSOCIATION OF SPORT SPECIALIZATION AND COMPETITION VOLUME WITH UPPER EXTREMITY INJURY HISTORY AND MENTAL HEALTH IN YOUTH SOFTBALL PLAYERS.	1. Eric Post, Indiana State University 2. Brett Bentley, University of Alabama 3. Aaron Lear, Cleveland Clinic Akron General Medical Center 4. Suzy McNulty, Mia Bella Pediatrics 5. Anne Marie Zeller, University of Pittsburgh Medical Center, Sterling Plaza
210	HIGHLY ACTIVE MIDDLE SCHOOL ATHLETES DEMONSTRATE POOR MOTOR SKILL PROFECIENCY	Lauren Butler, Nicklaus Children's Hospital 2. Dai Sugimoto, Waseda University 3. Ashley Erdman, Scottish Rite for Children 4. Jason Yoder, Children's Mercy 5. Kayla Greiner, Children's Mercy Hospital 6. Cynthia Larroque, Lake Erie College of Osteopathic Medicine 7. Kevin Latz, Children's Mercy Hospital 8. Alex Loewen, Scottish Rite for Children 9. Charles Wyatt, Scottish Rite for Children 10. Amie DeVerna, Nicklaus Children's Hospital 11. Sophia Ulman, Scottish Rite for Children
231	START2PLAY (SPECIALIZED TRAINING AND ASSESSMENT OF RISK TOOL)	1. Neeru Jayanthi, Emory University Department of Orthopaedics 2. Stacey Schley, Emory University Department of Orthopaedics 3. Stephanie Logterman, Arnold Palmer Hospital for Children
220	A COMPARISON OF STRENGTH AND FUNCTIONAL PERFORMANCE IN SPECIALIZED AND NON-SPECIALIZED YOUTH BASKETBALL ATHLETES	1. Katie Holehouse, Texas Scottish Rite Hospital for Children 2. Ashley Erdman, Scottish Rite for Children 3. Jacob Landers, Texas Scottish Rite Hospital for Children 4. Sophia Ulman, Scottish Rite for Children
222	THE ALLURE OF COLLEGE ATHLETIC SCHOLARSHIPS: WHAT IS THE PERCEPTION HIGH SCHOOL ATHLETES TOWARDS ATTAINING A COLLEGE SCHOLARSHIP IN THEIR SPORT?	1. Gregory Walker, Sports Medicine Center, Children's Hospital Colorado 2. Casey Little, University of Virginia, University of Virginia School of Medicine 3. Aubrey Armento, Sports Medicine Center, Children's Hospital Colorado 4. Emily Sweeney, Sports Medicine Center, Children's Hospital Colorado 5. Jay Albright, Sports Medicine Center, Children's Hospital Colorado 6. David Howell, Department of Orthopaedics, University of Colorado Anschutz Medical Campus, Aurora, CO, United States
223	WHAT HAPPENS TO YOUTH BASEBALL PLAYERS DIAGNOSED WITH LITTLE LEAGUE SHOULDER AND LITTLE LEAGUE ELBOW?	1. Evan Jensen, UC San Diego / VA San Diego Health Care System, UCSD 2. Tracey Bastrom, Rady Children's Hospital 3. Andrew Pennock, Rady Children's Hospital, Division of Orthopaedic Surgery,
SPO	RTS TRAUMA	
212	DIFFERENCES IN MANAGEMENT AND SUBSEQUENT OUTCOMES OF PATELLAR SLEEVE INJURIES: A RETROSPECTIVE CASE SERIES OF 90 PEDIATRIC AND ADOLESCENT PATIENTS	1. Joseph Yellin, Children's Hospital of Philadelphia, Division of Orthopaedic Surgery 2. Ian Watkins, Harvard Combined Orthopaedic Residency Program, Massachusetts General Hospital 3. Aliya Feroe, Mayo Clinic 4. Borna Guevel, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine 5. Daniel Haber, Panorama Orthopaedics and Spine Center 6. Mininder Kocher, Boston Childrens Hospital, Department of Orthopedics, Division of Sports Medicine
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217	LOWER EXTREMITY MUSCULOTENDINOUS CHANGES ACROSS AN ADOLESCENT MARATHON TRAINING PROGRAM	1. Alexandra DeJong Lempke, Boston Children's Hospital 2. Kristin Whitney, Boston Children's Hospital 3. William Meehan, Boston Children's Hospital



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32

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35

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