



## 2019 NATA Convention Final Program

### Themes for 2019

 Care Across the Lifespan

 Performing Arts

 Manual Therapy

### MONDAY, JUNE 24, 2019

#### Advanced Tracks, 8:00a.m. - 12:00p.m.

Using Dry Needling to Treat Neuropathy in Sports, (I, II, IV), Advanced  
Edo Zylstra, PT, DPT, OCS, KinetaCore  
Paul Killoren, PT, DPT, KinetaCore

Joint Dislocations-Evaluation and Acute Management, (II, III), Essential  
Mark Conroy, MD, CAQ-SM, Ohio State University Medical Center  
Ryan McGrath, MD, Ohio State University Medical Center  
Bryant Walrod, MD, CAQ-SM, Ohio State University Athletic Department


#### Advanced Tracks, 8:00a.m. - 3:00p.m.

Advanced Functional Cast Therapy for Orthopedic Injuries, (IV), Advanced  
Katherine Bagnato, LAT, ATC, OTC, BSN Medical

Care and Suturing of Minor Skin Wounds, (II), Essential  
Adam Cady, MHS, ATC, CSCS, Kerlan-Jobe Orthopaedic Clinic  
Leslie Cardoza, MPAP, PA-C, ATC, Brea Urgent Care  
Leah Dvorkin, MS, PA-C, ATC, The Steadman Clinic

#### Minicourses, 3:00p.m. - 4:00p.m.

Clinical Decision Making of the Rodeo Athletic Trainer, (I, II, III), Advanced  
Tyler Oberlander, MS, LAT, ATC, Great Plains Health-Sports Medicine

 Breathing Cues in Modern Dancers, (IV), Advanced

Katie Moos, MS, LAT, ATC, U.S. Military Academy

Musculoskeletal Ultrasound as a Clinical Evaluation Tool, (II), Advanced  
Jennifer Ostrowski, PhD, LAT, ATC, Moravian College

**Minicourses, 4:15p.m. - 5:15p.m.**

Rodeo Sports Medicine-Illustrative Cases and Discussion Points, (I, II, III), Advanced  
Nathan Jacobson, MD, Great Plains Health-Sports Medicine

A Pathoanatomical Paradigm for Iliotibial Band Pathology: A Synthesis of Evidence, (I, II, IV), Advanced  
Paul Geisler, EdD, ATC, Ithaca College

Chronic Unusual Pain Syndromes, (I, IV), Advanced  
David Priebe, MD, Lexington Regional Medical Center

**Minicourses, 5:30p.m. - 6:30p.m.**

Preventing Knee Injuries and Optimizing Long Term Joint Health, (I, II, IV), Advanced  
Terry Grindstaff, PhD, PT, ATC, Creighton University

Facts and Fables About Exercise-Associated Muscle Cramps, (I, II, IV), Advanced  
Kevin Miller, PhD, AT, ATC, Central Michigan University

**TUESDAY, JUNE 25, 2019**

**Best Practice Forum, 7:30a.m. - 8:30a.m.**

Head Impacts and Neck Workload: Applications in Military, Fast Jet Pilots, and Athletes, (I, II, IV),  
Advanced

Jeremy Witchalls, PhD, University of Canberra

Jason Mihalik, PhD, CAT(C), ATC, University of North Carolina at Chapel Hill



Dance Injuries: Biomechanics, Screening Tools and Treatments, (I, II, IV), Essential

Jatin Ambegaonkar, DAT, ATC, George Mason University

Jena Hansen-Honeycutt, DAT, ATC, George Mason University

**Peer-to-Peer, 7:30a.m. - 8:30a.m.**

You Are in the Position to Contribute! Give Your Thoughts on New Directions for the NATA Position  
Statements, (V), Essential

Jennifer Medina McKeon, PhD, ATC, CSCS, Ithaca College

Lindsay DiStefano, PhD, ATC, University of Connecticut

**Special Topics, 7:30a.m. - 8:30a.m.**

Exercise-Related Respiratory Conditions: Sorting Through the Differential Diagnoses, (II, III, IV),  
Advanced

Kitty Newsham, PhD, ATC, Saint Louis University

Legal, Ethical, and Education Issues Related to Anti-Doping Movement, (V), Essential  
Kenneth Wright, DA, ATRet, University of Alabama

Commonly Misdiagnosed Injuries in the Pediatric/Adolescent Population, (II), Essential  
Tanner Flatland, MS, LAT, Children's Hospital of Wisconsin

**Free Communication Oral Presentations, 7:30a.m. - 9:00a.m.**

**Soft Tissue Mobilization And Myofascial Release**

Treatment Order and Retention of Myofascial Release and Static Stretching on Hip Flexion Range of  
Motion

7:30a.m. - 7:45a.m.

Blaine Long, PhD, AT, ATC, Central Michigan University

Assessing the Effectiveness of Soft Tissue Mobilization on Pain, Point Tenderness and ROM in Physically  
Active Individuals with Muscle Soreness

7:45a.m. - 8:00a.m.

Kelly Harrison, PhD, LAT, ATC, East Stroudsburg University

Acute Effects of Instrument Assisted Soft Tissue Mobilization, Foam Rolling and Static Stretching on  
Hamstring and Quadriceps Flexibility

8:00a.m. - 8:15a.m.

Tony Boucher, PhD, LAT, ATC, Texas A&M University

Does a Light Pressure Instrument Assisted Soft Tissue Mobilization Technique Modulate Tactile  
Discrimination and Pressure Pain Threshold In Healthy Individuals with Delayed Onset of Muscle  
Soreness?

8:15a.m. - 8:30a.m.

Scott Cheatham, PhD, DPT, ATC, CSU Dominguez Hills

The Acute and Residual Effects of IASTM and Roller Massage Stick on Hamstring Active Range of Motion

8:30a.m. - 8:45a.m.

Johnny Lee, Weber State University

Effects of Dynamic Warm-Up Paired with IASTM Technique on Quadriceps ROM and Vertical Jump  
Performance

8:45a.m. - 9:00a.m.

Mackenzie Popp, Whitworth University

### **Sessions, 7:30a.m. - 9:30a.m.**

Advancing Clinical Practice Through Educational Quality Assurance, (V), Essential  
*Presented by the Commission on Accreditation of Athletic Training Education*  
Advancing Clinical Practice Through Educational Quality Assurance: Building a Foundation  
LesLee Taylor, PhD, LAT, ATC, Texas Tech University Health Sciences Center

Advancing Clinical Practice Through Educational Quality Assurance: Development of Clinical Specialists  
Eric Sauers, PhD, ATC, FNATA, A.T. Still University

Effective Communication Strategies to Engage Your Stakeholders, (V), Essential  
*Presented by the NATA State Association Advisory Committee*  
Working Together to Achieve Consistent “Internal” Communication  
David Csillan, MS, ATC, Ewing High School

Best Practices for External Communication of Information: Part I  
Laura Harris, PhD, LAT, ATC, Ohio University

Best Practices for External Communication of Information: Part II  
Scott Lawrance, DHSc, ATC, MSPT, Purdue University

### **Feature Presentation, 7:30a.m. - 9:30a.m.**


Interdisciplinary Teams Working with Military Athletes, (I, II, IV), Essential  
Randall Lazicki, PT, DPT, ATC, U.S. Army Special Operations Command  
Terry Dewitt, PhD, ATC, EP-C, Ouachita Baptist University  
JoEllen Sefton, PhD, ATC, Auburn University


Sexual Harassment and Its Impact on Athletic Training, (V), Essential  
What is Sexual Harassment and Why Should We Care?  
Dani Moffit, PhD, LAT, ATC, Idaho State University

Athletic Trainer’s Role of Reporting  
Anne Russ, PhD, LAT, ATC, Temple University

Reducing the Risk of Sexual Harassment: Best Practices for Athletic Trainers  
Jamie Mansell, PhD, LAT, ATC, Temple University

### **Learning Lab, 7:30a.m. - 9:30a.m.**

 Improving Shoulder Range of Motion: Instrument-Assisted Soft Tissue Mobilization Techniques for Increasing Functional Ability, (II, IV), Advanced  
John Vardiman, PhD, ATC, Kansas State University

 Unique Spinal Injury Management, (I, III), Advanced  
Edward Strapp, TPC, FPC, ATC, Maryland State Police

### **Free Communication Oral Presentations, 8:00a.m. - 9:00a.m.**

#### **Master's Oral Award Finalist**

The Relationship Between Injury-Related Fear and Visuomotor Reaction Time in Individuals After Anterior Cruciate Ligament Reconstruction

8:00a.m. - 8:15a.m.

Francesca Genoese, LAT, ATC, CES, University of Kentucky

Sport Sampling Affects LESS Scores and Physical Literacy Competency in Children

8:15a.m. - 8:30a.m.

Zachary Malone, ATC, LAT, University of Connecticut

Experiences of Transgender Athletes in the Athletic Training Setting: A Qualitative Study

8:30a.m. - 8:45a.m.

Emily Munson, AT, Ohio University

The Effect of Exercise on a Novel Dual-Task Assessment for Sport Concussion

8:45a.m. - 9:00a.m.

Juliana Jimenez, ATC, University of Virginia

### **Special Topic, 8:30a.m. - 9:30a.m.**



Chopped: Treatment of Common Conditions by Tapping Into the Body's Reflex System, (II, IV), Advanced  
Jaime Fulcher, DAT, LAT, ATC, Indiana Wesleyan University

### **Free Communication Rapid Fire Presentations, 9:00a.m. - 10:15a.m.**

#### **Running Mechanics: Clinical And Laboratory Measures**

Mirror Gait Retraining on Kinematics in a Healthy Female Runner: A Case Study

Victoria Trzyna MS, AT, Ohio University

Navicular Drop in Collegiate Distance Runners

Virginia Kyle Johns, University of Lynchburg

Runners with Exercise-Related Lower Leg Pain Exhibit Increased Contact Time and Strength Deficits

Rachel Koldenhoven Rolfe, Med, ATC, University of Virginia

Expanded Pain Sensitivity and Altered Bilateral Kinematics in Runners with Iliotibial Band Syndrome

Karrie Hamstra-Wright, PhD, ATC, CHWC, University of Illinois at Chicago

Investigating Hip and Trunk Kinematic and Strength Differences Between Those with a History of Exertional Medial Tibial Pain and Healthy Controls

Allison Hocking, MS, ATC, University of Wisconsin at Milwaukee

Effects of a 4-Week Short Foot Exercise Program on Running Kinetics in Recreational Runners

Marisa Castaneda, MS, ATC, University of Wisconsin at Lacrosse

Treadmill Versus Outdoor Running: Prediction Using a Random Forest Classifier on Biomechanical Measures of 181,909 Steps

Natalie Kramer, MEd, ATC, University of Virginia

Unique Outdoor Running Activities Captured Using Wearable Sensors in Adult Competitive Runners  
Alexandra Dejong, MEd, ATC, University of Virginia

**Athletic Training Student Seminar, 9:00a.m. - 10:00a.m.**

Back to the Future, (V), Essential  
Marjorie Albohm, MS, ATRet, Ossur Americas

**Free Communication Oral Presentations, 9:15a.m. - 10:15a.m.**

**Doctoral Oral Award Finalist**

Low Self-Efficacy and Mental Health Disorders Predict Persistent Postoperative Pain 3-Months Following Hip Arthroscopy

9:15a.m. - 9:30a.m.

Kate Jochimsen, PhD, ATC, University of Kentucky

Rationale for a Parsimonious Measure of Subjective Knee Function After ACL Reconstruction: A Rasch Analysis

9:30a.m. - 9:45a.m.

Ryan Duckett, MA, University of Toledo

Challenges Associated with Clinical Immersion in Athletic Training Education: A Report from the Athletic Training Clinical Education Network

9:45a.m. - 10:00a.m.

Sarah Myers, MEd, ATC, University of Connecticut

Virginia Concussion Initiative: Stakeholder Perspectives of Disparities in Concussion Policy Implementation

10:00a.m. - 10:15a.m.

Esther Nolton, MEd, LAT, ATC, George Mason University

**Free Communication Oral Presentations, 9:15a.m. - 10:45a.m.**

**Effective Treatment And Rehabilitative Approaches For Upper Extremity Conditions**

Nonsurgical Management of UCL Injuries is Tentatively Successful in Overhead Athletes: A Critical Appraisal of Case Series

9:15a.m. - 9:30a.m.

Nathan Oakes, ATC, Ithaca College

Use of a Motus Sleeve During the Care of a Medial Elbow Injury in the High School Baseball Athlete: Level 3 Case Report

9:30a.m. - 9:45a.m.

Joshua Brodersen Matrg, LAT, ATC, TRIA Orthopedics

Instrument Assisted Soft Tissue Mobilization to Improve Shoulder Joint Rotation Range of Motion

9:45a.m. - 10:00a.m.

Robyn Mitchell, University of Lynchburg

Comparison of Instrument-Assisted Soft Tissue Mobilization and Passive Stretching to Improve Glenohumeral Range of Motion and Function

10:00a.m. - 10:15a.m.

Troy Mendenhall, MS, ATC, LAT, Texas State University

Thoracic Outlet Syndrome in a College Volleyball Player

10:15a.m. - 10:30a.m.

Patrick Roosta, MS, LAT, ATC, Florida Memorial University

Use of Postural Restoration in Treating Chronic Rotator Cuff Pathology: A Level 3 CASE Study

10:30a.m. - 10:45a.m.

Jacob Waldron, LAT, ATC, University of Nevada at Las Vegas

**Best Practice Forum, 10:00a.m. - 11:00a.m.**

Examining Adherence to Therapeutic Rehabilitation, (I, II, IV), Essential

Jessica Rager, MS, ATC, University of South Carolina

Jessica Kirby, MEd, ATC, Ball State University

**Feature Presentation, 10:00a.m. - 11:00a.m.**

What Can Influence Your Athletes' Pain? From Placebo to the Biopsychosocial Model to Opioids, (II, IV), Advanced

Expectation Interactions in Rehabilitation

Paul Borsa, PhD, ATC, FACSM, University of Florida

The Development of the Biopsychosocial Model for Pain and how it can Influence Injury Rehabilitation

Geoff Dover, PhD, CAT(C), ATC, Concordia University

Pharmacological Interventions for Treating Pain: Opioids, NSAIDs and Personalized Medicine

Will Hedderson, MS, ATC, CAT(C), University of Central Arkansas

**Peer-to-Peer Discussion, 10:00a.m. - 11:00a.m.**

How to Handle Sexual Harrassment and Abuse Reports?, (V), Advanced

Dani Moffit, PhD, LAT, ATC, Idaho State University

Gretchen Schlabach, PhD, ATC, Northern Illinois University

**Special Topic, 10:00a.m. - 11:00a.m.**

Lower Body Movement Dysfunctions: As They Apply to the Golf Swing, (I, II, IV, V), Advanced

Lance Gill, MS, ATC, Lance Gill Performance Inc., Titleist Performance Institute

Putting Data to Work: Leveraging the Power of Clinical Data to Improve Patient Care, (I, II, IV, V), Essential

Kevin Robell, MA, ATC, Preventicx, Inc.

### **Sessions, 10:00a.m. - 12:00p.m.**

Injury Prevention and Physical Performance Training: Best Practices from Militaries Around the World, (I), Advanced

*Presented by the NATA International Committee*

The Importance of Physical Fitness and Physical Training for Injury Prevention in the Military

Joe Knapik, ScD, U.S. Army Research Institute of Environmental Medicine

Integrated Performance Strategies for Improving Resiliency and Durability of Military Personnel

Stefan Underwood, CSCS, XPS, EXOS

Use of Military Fitness Tests and Screening Tests to Predict Injury Risk in the Military

Jeremy Witchalls, PhD, University of Canberra

Your Best Yes: Embracing a Life of Service and Addressing Barriers to Volunteering, (V), Essential

*Presented by the NATA Young Professionals' Committee*

Kenneth Games, PhD, LAT, ATC, Indiana State University

Jay Sedory, MEd, ATC, EMT-T, U.S. Marine Corps

Kelly Quinlin, MS, ATC, CSCS, Northwest Missouri State University

Marjorie Albohm, MS, ATRet, Ossur Americas

The Doctorate of Athletic Training: What Can We Do With DAT?, (V), Essential

*Presented by the NATA Professional Development Committee*

Current Status of the DAT Degree as a Pathway for Professional Advancement

Gary Wilkerson, EdD, ATC, FNATA, University of Tennessee at Chattanooga

Quality Assurance for the DAT: Is Accreditation the Answer?

Christopher Ingersoll, PhD, ATC, FNATA, University of Toledo

Opportunities and Challenges for the DAT in traditional AT Faculty Roles

David Perrin, PhD, FNATA, FACSM, University of Utah

**"Not eligible for CEUs under Category A or D."**

### **Feature Presentation, 10:00a.m. - 12:00p.m.**



Regenerative Medicine: What Do We Know about Platelet-rich Plasma and Stem Cells, (IV), Advanced

Stephen Esser, MD, Southeast Orthopedic Specialists

Kelly Ward, PA, ATC, Piedmont Orthopedic Sports Medicine

### **Learning Lab, 10:00a.m. - 12:00p.m.**



Prevention of Movement Patterned Conditions Beyond Competitive Years: Asymmetrical Movement

Pattern Considerations, (I, II, IV), Mastery

Jason Masek, MA, PT, ATC, Hruska Clinic



● Treating Physically Active Patients With a Joint Mobilizations as Functional as Them: Mulligan Concept for the Lower Quadrant, (II, IV), Advanced  
Lucas Bianco, DAT, LAT, ATC, Biokinetix

**Athletic Training Student Seminar Breakouts, Round 1, 10:15a.m. - 11:00a.m.**

ATSS Breakout 1: Degree Change Panel, (V), Essential  
Lindsey Eberman, PhD, LAT, ATC, Indiana State University  
Brandie Martin, MS, ATC, OTC, The Steadman Clinic  
Mark Merrick, PhD, ATC, FNATA, Ohio State University  
Russell McKune, ATC, Nebraska Medicine

ATSS Breakout 2: Leadership Development, (V), Essential  
Scott Lawrance, DHSc, LAT, ATC, Purdue University

ATSS Breakout 3: Branding Yourself, (V), Essential  
Tory Lindley, MA, ATC, Northwestern University  
Tim Weston, MEd, ATC, Colby College

ATSS Breakout 4: International Development, (V), Essential  
Mark Gibson, MEd, MS, AT, University of Wisconsin at La Crosse

ATSS Breakout 5: Innovations in Patient Care, (V), Essential  
Mark Coberley, MS, ATC, LAT, Iowa State University

ATSS Breakout 6: Tactical Training Workshop, (V), Essential  
Edward Strapp, TPc, FPc, ATC, Maryland State Police

**Free Communication Rapid Fire Presentations, 10:30a.m. - 11:30a.m.**

**Employment In The Secondary School Setting For The Athletic Trainer**

Facilitators and Influencing Factors to the Use of Athletic Trainers in Secondary Schools  
Kelly Pagnotta, PhD, LAT, ATC, Jefferson University  
The Influence of Median Income on Athletic Trainer Services in Florida Secondary Schools  
Brandon Baker, University of South Florida

Socioeconomic Status Impacts Athletic Healthcare in Secondary Schools in the Eastern Athletic Trainers' Association

Robert Huggins, PhD, LAT, ATC, Korey Stringer Institute, University of Connecticut

The Landscape of Athletic Training Services in Public and Private Secondary Schools: Student Athletes and Sports Offered

Kelly Coleman, MS, ATC, University of Connecticut

Secondary School Athletic Trainers, Employment Type, Setting and Reported Time Spent on Job-Related Tasks

Erica Filep, MEd, LAT, ATC, University of Connecticut

The Impact of Athletic Trainers on the Incidence and Management of Concussions in High School Athletes

Timothy McGuine, PhD ATC, University of Wisconsin School of Medicine and Public Health

Influence of Assessor on Arizona Secondary School AMCAT Score

David Mesman, DHA, Med, AT, ATC, Grand Canyon University

**Free Communication Oral Presentations, 10:30a.m. - 11:45a.m.**

**Factors Related To Sport Specialization And Injury**

Injury History is Associated With Sport Specialization Level in High School Volleyball Athletes

10:30a.m. - 10:45a.m.

Kevin Biese, MA, LAT, ATC, University of Wisconsin at Madison

Sport Sampling Affects LESS Scores and Physical Literacy Competency in Children

10:45a.m. -11:00a.m.

Zachary Malone ATC, LAT, University of Connecticut

Perceptions of Factors Related to Sports Specialization Between Parents and Children

11:00a.m. -11:15a.m.

Mayrena Isamar Hernandez, MPH, LAT, ATC, University of Wisconsin at Madison

A Comparison of Team Sport Volume Between High School and Club Sport Coaches

11:15a.m. -11:30a.m.

Eric Post, PhD, ATC, San Diego State University

Association Between Level of Sport Specialization Upon Entry to Military Service and Lower Extremity Injury During One Year of Follow-Up at a U.S. Service Academy

11:30a.m. -11:45a.m.

Story Miraldi, ATC, John A. Feagin Jr. Sports Medicine Fellowship, Keller Army Hospital

**Special Topic, 11:00a.m. - 12:00p.m.**

Social Determinants and Patient Advocacy: New Standards for Athletic Trainers, (II, V), Essential

Rene' Shingles, PhD, ATC, Central Michigan University

Abdominal Trauma in Sports

Glenn Barnes, DO, University of Nevada Las Vegas Primary Care Sports Medicine

**Feature Presentation, 11:00a.m. - 12:00p.m.**



Life After Athletics: Long-Term Considerations for Lower Extremity Injuries, (I, IV), Essential

Lindsay DiStefano, PhD, ATC, University of Connecticut

Brian Pietrosimone, PhD, ATC, University of North Carolina at Chapel Hill

Mark Laursen, MS, ATC, Boston University

**Free Communication Oral Presentations, 11:00a.m. - 12:00p.m.**

**Clinic Education Techniques And Challenges**

Challenges Associated with Clinical Immersion in Athletic Training Education: A Report from the Athletic Training Clinical Education Network

11:00a.m. - 11:15a.m.

Sarah Myers, MEd, ATC, University of Connecticut

Student Burnout After a 15-Week Immersive Clinical Experience

11:15a.m. - 11:30a.m.

Melissa Snyder, PhD, LAT, ATC, Western Carolina University

Athletic Training Students' Engagement in Interprofessional Education and Practice in the Classroom and During Clinical Education

11:30a.m. - 11:45a.m.

Kirk Armstrong, EdD, ATC, James Madison University

**Athletic Training Student Seminar Breakouts, Round 2, 11:15a.m. - 12:00p.m.**

ATSS Breakout 1: Degree Change Panel, (V), Essential

Lindsey Eberman, PhD, LAT, ATC, Indiana State University

Brandie Martin, MS, ATC, OTC, The Steadman Clinic

Mark Merrick, PhD, ATC, FNATA, Ohio State University

Russell McKune, ATC, Nebraska Medicine

ATSS Breakout 2: Leadership Development, (V), Essential

Scott Lawrance, DHSc, LAT, ATC, Purdue University

ATSS Breakout 3: Branding Yourself, (V), Essential

Tory Lindley, MA, ATC, Northwestern University

Tim Weston, MEd, ATC, Colby College

ATSS Breakout 4: International Development, (V), Essential

Mark Gibson, MEd, MS, AT, University of Wisconsin at La Crosse

ATSS Breakout 5: Innovations in Patient Care, (V), Essential

Mark Coberley, MS, ATC, LAT, Iowa State University

ATSS Breakout 6: Tactical Training Workshop, (V), Essential

Edward Strapp, TPc, FPc, ATC, Maryland State Police

**Free Communication Oral Presentations, 11:30a.m. - 12:30p.m.**

**Ankle Injury Risk Factors**

Ankle Injury Risk Screening Tests Do Not Change Over the Course of a Single Season

11:30a.m. - 11:45a.m.

Melanie Mcgrath, PhD, LAT, ATC, University of Montana

Clinical Risk Factors for Recurrent Ankle Injury in Chronic Ankle Instability: A 1-Year Prospective Study

11:45a.m. - 12:00p.m.

S. Jun Son, PhD, ATC, CHA University

The Epidemiology of Ankle Injuries in Middle School Sports, 2015/16-2016/17 Academic Years  
12:00p.m. - 12:15p.m.

Shane Caswell, PhD, ATC, CSCS, George Mason University

Return to Play Probabilities by Division After New and Recurrent Lateral Ankle Sprains in Collegiate Men and Women's Basketball

12:15p.m. - 12:30p.m.

Sarah Morris, PhD, Datalys Center for Sports Injury and Prevention

**Free Communication Rapid Fire Presentations, 11:45a.m. - 12:30p.m.**

**Current State Of The Throwing Shoulder**

Do Baseball Players with Soft Tissue GIRD Have a Thicker Posterior Capsule?

Stephen Thomas, PhD, ATC, Temple University

Long-Term Loss of Motion Following Labral Surgery: A Level 3 Clinical CASE Study

Ashlee Myers, Appalachian State University

The Effects of Restricted Glenohumeral Horizontal Adduction Motion on Shoulder and Elbow Kinetics in Collegiate Baseball Pitchers

Kevin Laudner, PhD, ATC, Illinois State University

Acute and Longitudinal Effects of Pitching on Passive Range of Motion in Division I Athletes

Jacob Jelmini, MS, CSCS, Texas A&M University

Multiple Day Humeral Rotation Strength Deficits Following a Baseball Pitching Bout in Adolescent Pitchers

Brett Pexa, MA, ATC, University of North Carolina at Chapel Hill

**Peer-to-Peer Discussion, 12:45p.m. - 1:45p.m.**



Athletic Training and Medical Services at Extreme Sport Events, (III, V), Advanced

Christina Saffran, MS, ATC, Hoover High School / Medicine in Motion

Mike McKinney, MS, ATC, CSCS, Grand Canyon University

**Special Topic, 12:45p.m. - 1:45p.m.**



Chronic Hip Injuries and Pathology in Dance, (I, II, IV), Essential

Raena Steffan, MS, LAT, ATC, AllSports Medicine at Johns Hopkins All Children's Hospital

Evidence-Based Acute Wound Management: Challenges and Solutions for Clinical Practice, (II, IV), Advanced

Joel Beam, EdD, LAT, ATC, University of North Florida

**Session, 12:45p.m. - 2:45p.m.**

Sex and the Athletic Trainer: Talking to Athletes about STIs, (I, II), Essential  
*Presented by the American College Health Association*  
Lori Dewald, EdD, ATC, MCHES, American Public University  
Cheryl Hug-English, MD, University of Nevada at Reno

Quality Improvement in Athletic Training, (V), Essential  
*Presented by the NATA Professional Education Committee*  
Defining and Measuring Quality Improvement in Athletic Training  
Eric Sauers, PhD, ATC, FNATA, A.T. Still University


Educational Strategies for Implementing Quality Improvement  
Alison Snyder-Valier, PhD, ATC, FNATA, A.T. Still University


Quality Improvement in Clinical Education and Practice Environments  
Amy Valasek, MD, Nationwide Children's Hospital

**Feature Presentation, 12:45p.m. - 2:45p.m.**

Live Surgeries: Partial and Full Knee Replacements, (I),  
Roddy McGee, MD, Total Sports Medicine & Orthopedics

**Learning Lab, 12:45p.m. - 2:45p.m.**

 Advanced Airway Management: Low Frequency Skill, High Potential of Risk When Not Performed  
Appropriately, (III), Advanced  
David Berry, PhD, MHA, ATC, Saginaw Valley State University

 Answering Clinical Questions, (II, IV), Essential  
Liz Drake, EdD, ATC, Gustavus Adolphus College

**Special Topic, 1:45p.m. - 2:45p.m.**

Baseball/Softball Swing Mechanics and its Relationship to Musculoskeletal Injury, (I, II, IV), Advanced  
Ellen Shanley, PhD, PT, OCS, South Carolina Center for Effectiveness Research in Orthopedics


Ankle impingement Syndromes, (II, IV), Essential  
Eric Nussbaum, MEd, LAT, ATC, University Orthopaedic Associates

**BOC EBP Approved Program, 3:00p.m. - 4:00p.m.**


The Hydration Debate: Making Sense of the Mixed Messages, (I), Advanced  
*Presented by the Gatorade Sports Science Institute*  
Robert Kenefick, PhD, FACSM, U.S. Army Research Institute of Environmental Medicine

## **WEDNESDAY, JUNE 26, 2019**

### **Peer-to-Peer Discussion, 7:00a.m. - 8:00a.m.**

-  Pediatric Athletes Are Not Small Adults: Key Factors to Proper Risk Factor Assessment and Rehabilitation, (I, IV), Essential  
Doug Wiesner, ATC, University of Kansas Youth Sport Performance

### **Special Topic, 7:00a.m. - 8:00a.m.**

-  Shoulder Replacement Surgery: Indications and Clinical Outcomes, (II, IV), Advanced  
Aimee Struk, MEd, ATC, University of Florida

Celiac Disease and Gluten Sensitivity: Considerations for Life and Sport, (I), Essential  
Breanna Hamilton, MEd, LAT, ATC, University of Texas at Arlington

### **Rapid Fire Presentations, 7:00a.m. - 8:00a.m.**

#### **Concussion Education and Reporting**

Perceptions & Experiences of Faculty in Higher Education Regarding the Return-to-School Process Following Concussion

Margaret Ha, MS, ATC, Sports Conditioning and Rehabilitation

Delayed Versus Immediate Reporting of Concussion and It's Impact on Length of Recovery Among Athletes

Mitchell Barnhart, ATC, A.T. Still University

Factors Impacting Concussion-Related Decision-Making by Certified Athletic Trainers

Melissa Kay, MS, LAT, ATC, University of North Carolina at Chapel Hill

Perception of Child Concussion Risk in Adults without Children

Steven Broglio, PhD, ATC, University of Michigan

Virginia Concussion Initiative: Stakeholder Perspectives of Disparities in Concussion Policy Implementation

Esther Nolton, MEd, LAT, ATC, CSCS, George Mason University

Assessment of Taekwondo Athletes' Knowledge of and Attitude Toward Sport-Related Concussions

Scott Freer, PhD, ATC, LAT, Barry University

### **Free Communication Oral Presentations, 7:00a.m. - 8:00a.m.**

#### **Hip and Pelvis Case Reports**

Development, Recognition and Treatment of Bilateral Acetabular Labral Tears and FAI in a High School Female

7:00a.m. - 7:15a.m.

Chelsea Kuntz, AT, MEd, Cleveland Clinic

Greater Trochanteric Chondroblastoma in a Female Collegiate Soccer Player

7:15a.m. - 7:30a.m.

Jessica Trapp, MS, LAT, ATC, Jacksonville University

Implementing Patient Outcomes and Functional Assessment to Direct Treatment Interventions for Hip Pain: A Level 2 Case Series.

7:30a.m. - 7:45a.m.

Richard Patterson, DAT, LAT, ATC, Temple University

Osteitis Pubis: A Tale of Misdiagnoses

7:45a.m. - 8:00a.m.

Alyssa Irby, University of Nebraska at Omaha

**Free Communication Rapid Fire Presentations, 7:00a.m. - 8:00a.m.**

**Injury Risk and Health Care Consideration Among Tactical Athletes**

The Effects of Body Composition and Physical Fitness on IET Road Marches

Kaitlin McGinnis, MS, LAT, ATC, Auburn University

Self-Reported General Health and Fitness Among U.S. Service Members Entering Secondary Training

Daniel Clifton, PhD, ATC, Uniformed Services University of The Health Sciences

The Impact of Limited Flexibility and Previous Musculoskeletal Injury on Likelihood of Injury in U.S.

Service Members During Secondary Training

Brian Cone, PhD, CSCS, Uniformed Services University

Perception-Action Coupling Assessment and Training of ROTC Cadets

Alexis Williams, MS, LAT, ATC, University of Tennessee at Chattanooga

Shoulder and Cervical Musculoskeletal Asymmetries in Naval Special Operation Forces with Shoulder Injury: A Prospective Cohort Study

Anne Beethe, MA, ATC, CSCS, University of Pittsburgh

Perceived Barriers to Musculoskeletal Injury and Illness Reporting in the Fire Service

Kirsten Potts, DAT, LAT, ATC, Indiana State University

The Structural and Cultural Barriers to Reporting Musculoskeletal Injuries From the Lens of Fire Chiefs

Celcey Clark, MS, LAT, ATC, Indiana State University

**Session, 7:00a.m. - 9:00a.m.**

Don't Bet on Your Career: Understanding the Issues of Sports Gambling and How It May Affect the Athletic Trainer, (V), Essential

*Presented by the NATA Committee on Professional Ethics*

Prevalence of Sports Gambling and Mental Health Disorders

Timothy Neal, MS, ATC, CSSIM, Concordia University at Ann Arbor

How Does the NATA Code of Ethics Address Sports Gambling?

Darryl Conway, MA, AT, ATC, University of Michigan

Case Scenarios in Sports Gambling for the AT to Consider  
Zachary Garrett, DHSc, AT, ATC, Marshall University

**Feature Presentation, 7:00a.m. - 9:00a.m.**

Appropriate Medical Care in Secondary Schools - Implementing the Appropriate Care for Secondary School Aged Athletes Standards, (V), Advanced

Revision, Analysis, and Creation of Appropriate Care Standards in the Secondary Schools  
Larry Cooper, MS, LAT, ATC

Implementing Appropriate Care Standards in the Secondary School Using the NATA Online Tool  
Bart Peterson, MSS, ATC, Palo Verde Magnet High School

Developing an Appropriate Athletic Health Care Program A Case Study  
Jamie Woodall, MPH, LAT, ATC, Brenham High School


Creating a High-Performance Environment: Considerations for the Profile of an Athlete, (I, V), Advanced


 Athlete Architecture: Creating a Framework for Health and Performance  
Jay Mellette, MS, ATC, Las Vegas Golden Knights

Developing a Performance Profile in a Unique Environment  
Kerry Gordon, MS, ATC, Cirque du Soleil

The Athlete Centric Model: Implementation in the Trenches  
Reggie Scott, MS, ATC, Los Angeles Rams

**Learning Lab, 7:00a.m. - 9:00a.m.**

 Proprioceptive Neuromuscular Facilitation for the Lower Extremity, (IV), Essential  
James Scifers, DScPT, PT, ATC, Moravian College

 Clinical Examination Skills of the EENMT Minimizing Skill Delay Using Task Trainers, Simulators and Standardized Patients, (II), Essential  
Robert Charles-Lipscombe, EdD, ATC, LAT, Mount St. Joseph University

**Free Communication Oral Presentations, 7:30a.m. - 9:00a.m.**

**The Latest In Heat Illness Research**

Core Temperature and Environmental Factors Among University Marching Band Musicians  
7:30a.m. - 7:45a.m.

Dawn Emerson, PhD, ATC, University of Kansas

Validity of Common Body Core Temperature Measurement Sites in Hyperthermic Humans Wearing American Football Uniforms



7:45a.m. - 8:00a.m.

Kevin Miller, PhD, AT, ATC, Central Michigan University

Exertional Heat Stroke at The Falmouth Road Race: Incidence Rate and Survival

8:00a.m. - 8:15a.m.

Rachel Katch, MS, LAT, ATC, University of Connecticut

Exertional Heat Stroke Management Strategies: A Comparison of Practice and Intentions Between Athletic Trainers Who Did and Did Not Treat Cases During High School Football Preseason

8:15a.m. - 8:30a.m.

Aliza Nedimyer, MA, LAT, ATC, University of North Carolina at Chapel Hill

Examining the Need to Develop School-Specific Environmental Activity Modification Guidelines: Preliminary Analysis

8:30a.m. - 8:45a.m.

Yuri Hosokawa, PhD, ATC, Ritsumeikan University

Cold Water Immersion Preparedness for Exertional Heat Stroke in United States High School Football Preseason

8:45a.m. - 9:00a.m.

Zachary Kerr, PhD, MPH, University of North Carolina at Chapel Hill

### **Best Practice Forums, 8:00a.m. - 9:00a.m.**

Designing Effective Concussion Education Programs to Impact Clinical Care: What's Working and What's Not?, (I), Essential

Debbie Craig, PhD, ATC, Northern Arizona University

Johna Register-Mihalik, PhD, ATC, University of North Carolina at Chapel Hill



Incorporating Patient-Reported Outcome Measures into Pediatric Care: Is Your Instrument Appropriate for Youth and Adolescent Athletes?, (I, IV), Advanced

Ashley Marshall, PhD, ATC, A.T. Still University

Kenneth Lam, ScD, ATC, A.T. Still University

### **Peer-to-Peer Discussion, 8:00a.m. - 9:00a.m.**

Developing and Rehearsing Your Emergency Action Plan to Address Equipment Removal and Spine Boarding Procedures, (III), Essential

Gialuca Del Rossi, PhD, ATC, University of South Florida

Ian Graulich, MA, ATC, University of South Florida S.M.A.R.T. Institute

### **Special Topic, 8:00a.m. - 9:00a.m.**

Wading Through the Athletic Recovery Landscape with So Many Gadgets, Gizmos, and Wearables - Tips from an Athletic Trainer Perspective, (I, IV), Essential

Thomas Kaminski, PhD, ATC, FNATA, University of Delaware

Stress Fracture Management, (I), Advanced  
Kenneth Cameron, Phd, MPH, ATC, Keller Army Community Hospital

**Free Communication Oral Presentations, 8:15a.m. - 9:45a.m.**

**Electrical Stimulation Techniques For Pain and Muscle Strengthening**

Changes in Pain Perception, Aerobic and Resistance Exercise Progressions and the Amplitude of Electrotherapy During a Ten-Session Rehabilitation Program for Patients with Anterior Knee Pain  
8:15a.m. - 8:30a.m.

Joohee Lee, Kyung Hee University

The Effects of Electrically Induced Vastus Lateralis Fatigue on Vastus Medialis Activity During Knee Extension

8:30a.m. - 8:45a.m.

James Kearney, ATC, Marist College

Effect of Functional Electrical Stimulation Applied to the Gluteus Medius During Resistance Training

8:45a.m. - 9:00a.m.

Matthew Robinson, MS, AT, ATC, University of Toledo

The Negative Effect of an Automatic Intensity Step-Down Function During NMES Treatments

9:00a.m. - 9:15a.m.

Cody Bremner, PhD, LAT, ATC, Southern Utah University

Effectiveness of the Kneehab® XP Electrical Stimulator on Motor Point Targeting

9:15a.m. - 9:30a.m.

William Holcomb, PhD, LAT, ATC, FNATA, Mercer University

Intrinsic Foot Muscle Training and Neuromuscular Electrical Stimulation Lead to Increased Arch Height Index and Improved Y-Balance Composite Scores

9:30a.m. - 9:45a.m.

Dave Gutekunst, PhD, MS, Saint Louis University

**Feature Presentation, 9:15a.m. - 10:15a.m.**



The Management of Patient-Oriented and Clinician-Oriented Impairments Associated with Chronic Ankle Instability: A Focus on Therapeutic Exercise and Manual Therapy, (II, IV), Advanced

Intervention Strategies to Address Common Impairments Associated with Chronic Ankle Instability

Cameron Powden, PhD, ATC, Indiana State University

Patient and Clinician-Oriented Outcome Measures for Assessing Patients with Chronic Ankle Instability

Megan Houston, PhD, ATC, Keller Army Community Hospital

Tracking Rehabilitation Progression for Chronic Ankle Instability Patients: A Clinical Outcomes Approach

Matthew Hoch, PhD, ATC, University of Kentucky

**Peer-to-Peer Discussion, 9:15a.m. - 10:15a.m.**

Overcoming Barriers to Successfully Manage Heat Stroke, (III), Advanced  
Brendon McDermott, PhD, ATC, University of Arkansas  
David Csillan, MS, ATC, Ewing High School

**Special Topic, 9:15a.m. - 10:15a.m.**

Menstrual Dysfunction: A Screening for All Female Athletes, (I, II), Essential  
Julie Young, MA, ATC, PES, Nationwide Children's Hospital Sports Medicine

The Effects of Photobiomodulation (Light/Low-Level Laser) Therapy on Muscle Recovery Compared to Traditional Therapeutic Modalities, (IV), Essential  
Justin Rigby, PhD, LAT, ATC, Texas State University

**Free Communication Oral Presentations, 9:15a.m. - 10:15a.m.**

**Perceptions and Strategies For Caring For LGBTQ Student Athletes**

Athletic Trainers' Perceptions About Collegiate Transgender Student-Athletes' Unfair Advantage in Sport Participation

9:15a.m. - 9:30a.m.

Emma Nye, DAT, LAT, ATC, Indiana State University

Athletic Trainers' Perceived Competence and Educational Influences in Their Ability to Care for Collegiate Transgender Student-Athletes

9:30a.m. - 9:45a.m.

Daniel Walen, DAT, LAT, ATC, Indiana State University

Gender and Sexual Minority Athletes Willingness to Seek Medical Advice and Come Out to Athletic Trainers

9:45a.m. - 10:00a.m.

Kristine Ensign, PhD, AT, Ohio University

Experiences of Transgender Athletes in the Athletic Training Setting: A Qualitative Study

10:00a.m. - 10:15a.m.

Emily Munson, AT, Ohio University

**Sessions, 9:15a.m. - 11:15a.m.**

Evidence Straight From the Source: Peer-Reviewed Publications in Athletic Training, (V), Essential  
*Presented by the NATA Journal Committee*

Journal of Athletic Training

Jay Hertel, PhD, ATC, FNATA, University of Virginia

International Journal of Athletic Therapy & Training

Jennifer Medina McKeon, PhD, ATC, CSCS, Ithaca College

Journal of Sport Rehabilitation

Carl Mattacola, PhD, ATC, FNATA, University of Kentucky

Athletic Training & Sports Health Care

Thomas Kaminski, PhD, ATC, FNATA, University of Delaware

Sports Health

Riamm Palmieri-Smith, PhD, ATC, FNATA, University of Michigan

Athletic Training Education Journal

David Berry, PhD, MHA, ATC, Saginaw Valley State University

Clinical Practice in Athletic Training

Cameron Powden, PhD, ATC, Indiana State University

Professional Integrity in Scholarly Writing, (V), Essential

*Presented by the NATA Professional Responsibility in Athletic Training Committee*

Plagiarism Pitfalls

Jeff Konin, PhD, PT, ATC, University of Rhode Island

Authorship Considerations

Elisabeth Rosencrum, PhD, ATC, CSCS, Plymouth State University

Research Integrity

Marisa Colston, PhD, ATC, University of Tennessee at Chattanooga

**Feature Presentation, 9:15a.m. - 11:15a.m.**

Clinical Specialists and Advanced Practice Leaders: Education Pathways to Enhance Athletic Training Practice and Optimize Patient Care, (V), Essential

Patient Care Pathways: The Continuum From Novice to Expert Clinician in Athletic Training

Eric Sauers, PhD, ATC, FNATA, A.T. Still University

Developing Clinical Specialists Through Residency Training Programs

Forrest Pecha, MS, LAT, ATC, St. Luke's Sports Medicine

Developing Advanced Practice Leaders Through Doctor of Athletic Training Programs

Brian Vesci, DAT, ATC, Northwestern University

**Learning Lab, 9:15a.m. - 11:15a.m.**



Using Classical Pilates to Rehabilitate the Overhead Athlete, (IV), Essential

Anthony Piegaro, Jr., MS, LAT, ATC, Cirque du Soleil



Thoracic Manual Therapy for the Treatment of Cervical and Shoulder Pain, (II, IV), Advanced  
Michael Higgins, PhD, ATC, PT, University of Virginia

**Free Communication Rapid Fire Presentations, 9:30a.m. - 10:15a.m.**

**Planning For and Managing Emergencies**

Describing Sport-Related Genitourinary Injuries in Males Reporting to Emergency Departments: A National Electronic Injury Surveillance System Report  
Gregory Janik, DAT, LAT, ATC, King's College

An Analysis of Certified Athletic Trainers' Ability to Provide High-Quality Cardiopulmonary Resuscitation Over Hockey Shoulder Pads  
Adam Estabrooks, ATC, CKTP, North Dakota State University

The Effect of Lacrosse Protective Equipment on Time to First Compression and First Automated External Defibrillator Shock  
Richard Boergers, PhD, ATC, Seton Hall University

A Novel Approach to Loop-Strap Cutting Utilizing a Motorized Oscillating Saw as Compared to a Traditional Cutting Tool  
Mark Rotondi, ATC, Marist College

The Effect of Practice on Facemask Removal Timeliness with Lacrosse Helmets Used for at Least One Season of Play  
Katherine Frick, MS ATC LAT, Venesco LLC

A Comparison of Spinal Motion in an Equipment Laden Patient During Three Different Transfer Techniques  
Jolene Martinko, ATC, Marist College

**Free Communication Oral Presentations, 9:45a.m. - 11:15a.m.**

**Patient Centered Outcomes Following ACLR**

Increased Pain 4 Weeks Post ACL Reconstruction is Predictive of Lower Self-Reported Sports Function at 6 Months

9:45a.m. - 10:00a.m.

Emily Hunt, MS, ATC, University of Kentucky

Rationale for a Parsimonious Measure of Subjective Knee Function After ACL Reconstruction: A Rasch Analysis

10:00a.m. - 10:15a.m.

Ryan Duckett, MA, University of Toledo

The Relationship Between Injury-Related Fear and Visuomotor Reaction Time in Individuals After Anterior Cruciate Ligament Reconstruction

10:15a.m. - 10:30a.m.

Francesca Genoese, LAT, ATC, CES, University of Kentucky

Psychological Readiness of Athletes to Return-to-Play Following Injury  
10:30a.m. - 10:45a.m.  
Alyssa Monahan, MS, LAT, ATC, Georgia Southern University

The Association Between Psychological Readiness to Return-to-Sport and Self-Perceived Function After Anterior Cruciate Ligament Reconstruction  
10:45a.m. - 11:00a.m.  
Jacqueline Miller, ATC, A.T. Still University

**Free Communication Oral Presentations, 10:00a.m. - 11:15a.m.**

**Injury Screening and Outcomes In The Military**

Patient and Injury Demographics of Athletic Training Medical Care for Reserve Officer Training Corps: A Report From the Athletic Training Practice-Based Research Network  
10:00a.m. - 10:15a.m.  
Kara Radzak, PhD, LAT, ATC, University of Nevada at Las Vegas

Association Between Performance on The Landing Error Scoring System and Bone Stress Injury Risk in U.S. Military Academy Cadets  
10:15a.m. - 10:30a.m.  
Timothy Eckard, PT, DPT, OCS, University of North Carolina at Chapel Hill

Evaluation of Landing Error Scoring System and High School Sport Participation in Army Reserve Officer Training Corps  
10:30a.m. - 10:45a.m.  
Hayley Ericksen, PhD, ATC, University of Wisconsin at Milwaukee

Association Between Movement Quality Upon Entry to a U.S. Service Academy and Lower Extremity Injury During One Year of Follow-Up  
10:45a.m. - 11:00a.m.  
Kenneth Cameron, PhD, MPH, ATC, John A. Feagin Jr. Sports Medicine Fellowship, Keller Army Hospital

Anterior Cruciate Ligament Reconstruction Survivability in the U.S. Military: A 5-Year Case-Control Study  
11:00a.m. - 11:15a.m.  
Timothy Mauntel, PhD, ATC, Walter Reed National Military Medical Center

**Feature Presentation, 10:15a.m. - 11:15a.m.**

Are We Walking Away From Chronic Dysfunction? Advanced Clinical Gait Assessment and Treatment, (I, II, IV), Advanced

Walk On By: Translating the Gait Assessment to the Clinical Environment  
Christopher Kuenze, PhD, ATC, Michigan State University

Walk Hard: The Importance of Appropriate Loading Following Anterior Cruciate Ligament Reconstruction  
Brittney Luc-Harkey, PhD, ATC, Brigham and Women's Hospital

Walk This Way: Using Low-Cost Instruments to Provide Feedback During Gait  
Luke Donovan, PhD, ATC, University of North Carolina at Charlotte

**Special Topics, 10:15a.m. - 11:15a.m.**

Returning the Student-Athlete to the Classroom: Case-Based Scenarios, (IV), Advanced  
Tamara Valovich McLeod, PhD, ATC, FNATA, A.T. Still University

Career Progression Up the Health Care Management Ladder, (V), Advanced  
Aaron Hajart, MS, ATC, New Bridge Medical Center

**Free Communication Oral Presentations, 10:30a.m. - 11:15a.m.**

**The Effects Of Cupping On Patient Outcomes**

Cupping Therapy Does Not Influence Hamstring Range of Motion Compared to Control or Sham  
Conditions

10:30a.m. - 10:45a.m.

Matthew Schafer, MS, LAT, ATC, University of Louisiana at Lafayette

The Effects of Dry Cupping Massage Therapy on Delayed Onset Muscle Soreness

10:45a.m. - 11:00a.m.

Tricia Majewski-Schrage, EdD, ATC, LAT, University of Northern Iowa

The Influence of Dry Cupping Therapy on Collegiate Musicians with Chronic Neck Pain

11:00a.m. - 11:15a.m.

Aaron Ngor, MS, AT, Ohio University

**Free Communication Rapid Fire Presentations, 10:30a.m. - 11:15a.m.**

**Intervention Strategies For Chronic Ankle Instability**

A Randomized Controlled Trial Investigating the Effects of a 4-Week Ankle Rehabilitation Program on  
Dynamic Balance in High School Athletes with Chronic Ankle Instability

M. Spencer Cain, PhD, ATC, LAT, University of North Carolina at Chapel Hill

Eccentric Training with Anodal Transcranial Direct Current Stimulation Increases Muscle Activation in  
Individuals with Chronic Ankle Instability

Amelia Bruce, MS, Appalachian State University

Effects of Instrument Assisted Soft-Tissue Mobilization on Neuromuscular Control for Chronic Ankle  
Instability

Brittany Croft, University of Lynchburg

Evaluating Postural Control on Ankle Acupuncture

Hsin-Min Wang PhD, China Medical University

Effects of Blood Flow Restriction on Muscle Activation in Individuals with Chronic Ankle Instability

John Goetschius, PhD, ATC, Adrian College

Predicting Responders Following a 4-Week Multimodal Intervention in Patients with Chronic Ankle  
Instability

Cameron Powden, PhD, ATC, LAT, Indiana State University

**BOC EBP Approved Program, 11:45a.m. - 1:45p.m.**

Evolving Concussion Prevention and Care Across the Life Span, (I, II, IV), Advanced

Pediatric

Joel Stitzel, PhD, Wake Forest University

Young Adult

Johna Register-Mihalik, PhD, ATC, University of North Carolina at Chapel Hill

Retired Athletes

Kevin Carneiro, MD, University of North Carolina at Chapel Hill


**Special Topics, 5:15p.m. - 6:15p.m.**

 Examining the Science Behind Stretching and Soft Tissue Manual Therapies: Are We Following the Evidence?, (IV), Advanced

Kenneth Cieslak, DC, ATC, CSCS, Teaneck Board of Education

Brain-Hacking: Can or Should We Correct the Cortical Adaptations that Happen After Injury?, (IV), Advanced

Alan Needle, PhD, ATC, CSCS, Appalachian State University

 Advanced Comprehensive Athletic Trainer Assessment of the Ballet Dancer's Foot En Pointe, (II), Advanced

Kimberly Perrella Veirs, PhD(C), ATC, MPT, University of Oklahoma Health Sciences Center

Treatment and Rehabilitation for Triathletes, (II, IV), Advanced

Mark Baughman, DPT, ATC, OCS, Coltman and Baughman Physical Therapy

**Free Communication Oral Presentations, 5:15p.m. - 6:15p.m.**

**Visual Concussion Assessment**

The Effect of Exercise on a Novel Dual-Task Assessment for Sport Concussion

5:15p.m. - 5:30p.m.

Juliana Jimenez, University of Virginia

Native Language May Affect Performance on the King-Devick Test, but Not the Impact

5:30p.m. - 5:45p.m.

Anthony Cosby Jr., Ithaca College

Executive Function is Related to Visuomotor Reaction Time in Collegiate Athletes

5:45p.m. - 6:00p.m.

Matthew Hoch, PhD, ATC, University of Kentucky



Clinical versus Functional Reaction Time: Implications for Post-Concussion Management  
6:00p.m. - 6:15p.m.  
Robert Lynall, PhD, ATC, University of Georgia

**Free Communication Oral Presentations, 5:15p.m. - 6:30p.m.**

**Injury Risk Across Ages and Sports**

Neuromechanical Factors Associated with College Football Injury Risk  
5:15p.m. - 5:30p.m.

Rachael Anthony, MS, LAT, ATC, University of Tennessee at Chattanooga

The Association Between Injuries and Overtime Play in National Collegiate Athletic Association Soccer  
5:30p.m. - 5:45p.m.

Erin Wasserman, PhD, Datalys Center for Sports Injury Research and Prevention

Predictive Value of Injury Risk Screening for Collegiate Volleyball Players  
5:45p.m. - 6:00p.m.

Alexis Gaylor, MS, ATC, University of Tennessee at Chattanooga

Poor Balance as a Predictor of Injury in Adolescent Athletes

6:00p.m. - 6:15p.m.

Carl Lange, DAT, LAT, ATC, Temple University

A Pilot Study Examining the Effects of an Injury Prevention Program on Lower Extremity Injury in Middle School Boys' Soccer

6:15p.m. - 6:30p.m.

Katherine Van Wert, MS, NHLAT, ATC, George Mason University

**Free Communication Rapid Fire Presentations, 5:15p.m. - 6:30p.m.**

**Prevalence and Rehabilitation Outcomes of Mental Health Conditions In Active Populations**

Validation of a Depression Screening Tool in Collegiate Student-Athletes

Branden Green, LAT, ATC, West Chester University

Pilot Study of Mental Health Symptoms in Collegiate Student-Athletes

Megan Simon LAT, ATC, University of North Carolina at Chapel Hill

Depression in Adolescent Athletes: Prevalence and Demographics

Ashley Long, PhD, LAT, ATC, Mt. Olive Family Medicine Center

Prevalence of Depression and Anxiety Among ROTC College Students

Allison Smith, MS, ATC, SCAT, University of South Carolina

Depression Following Concussion in Retired Professional Football Players

Ryan Thomson, LAT, ATC, Temple University

The Effect of Premorbid Anxiety on Rehabilitation Services and Recovery Times Following Pediatric Concussion

Elizabeth Teel, PhD, McGill University

Preseason Psychological Distress Affects College Student-Athletes' Health-Related Quality of Life: Findings From the Active Rehab Study  
Johna Register-Mihalik, University of North Carolina at Chapel Hill

Poor Surgical Expectations for Patients with Shoulder Instability are Associated with Race and Mental Health  
Nicole Cascia, MAT, ATC, CES, University of Kentucky

Low Self-Efficacy and Mental Health Disorders Predict Persistent Postoperative Pain 3-Months Following Hip Arthroscopy  
Kate Jochimsen, PhD, ATC, University of Kentucky

**Free Communication Rapid Fire Presentations, 5:15P.M. - 6:45p.m.**

**Biomechanical and Neuromuscular Considerations For ACLR Rehabilitation**

Systemic Quadriceps Muscle Failure Following ACL Reconstruction: Neural and Morphological Considerations  
Adam Lepley, PhD, ATC, University of Connecticut

How Much Time is Needed Between Serial "Return-To-Play" Assessments to Achieve Clinically Important Strength Gains in Patients Recovering from ACL Reconstruction?  
Stephan Bodkin, Med, ATC, University of Virginia

Personalized Sensor-Based Classification of ACL Reconstructed Patients Using Machine Learning is Affected by Muscle Strength and Symmetry  
Joe Hart, PhD, ATC, FNATA, University of Virginia

Time Course of the Effects of Vibration on Quadriceps Function in Individuals with Anterior Cruciate Ligament Reconstruction  
Christopher Johnston, MS, ATC, University of North Carolina at Chapel Hill

Knee Loading Following ACL-R is Related to Quadriceps Strength and Knee Extension Difference Across The Continuum of Care  
Craig Garrison, PhD, PT, ATC, Texas Health Sports Medicine

How Does it All Measure Up? Interrelationships Between Biomechanical, Clinical Symmetry and Self-Reported Function After ACLR  
Julie Burland, MS, ATC, CSCS, University of Connecticut

The Effects of Transcranial Direct Current Stimulation on Quadriceps Neural Activity After Anterior Cruciate Ligament Reconstruction  
Justin Rush, ATC, University of Connecticut

A Novel Test of Trunk Control Identifies Deficits in ACL Reconstructed Patients  
Chelsey Roe, MS, ATC, University of Kentucky

Relationship Between Patient-Reported Outcome Measures and Sample Entropy During Dual-Task Balance Following Anterior Cruciate Ligament Reconstruction  
Janet Simon, PhD, AT, Ohio University

Altered Gait Patterns in Patients with ACL Reconstructed Knees Performing Multiple Tasks  
Kim Twait, Med, ATC, University of Virginia

**Sessions, 5:15p.m. - 7:15p.m.**

Transition to Practice, (V), Essential

*Presented by the NATA Executive Committee for Education*

Organization and Administration

Steve Nordwall, MA, ATC, University of Maryland

Mentoring and Clinical Practice

Brian Vesci, DAT, ATC, Northwestern University

**“Not eligible for CEUs under Category A or D.”**

Safe Space Ally Training for the Athletic Trainer, (I), Advanced

*Presented by the NATA LGBTQ+ Advisory Committee*

Patricia Aronson, PhD, LAT, ATC, University of Lynchburg

Rebecca Lopez, PhD, ATC, University of South Florida

**Feature Presentation, 5:15p.m. - 7:15p.m.**

Long-Term Athlete Development for the “Other” Overhead Sports, (I, II, IV), Essential

Long-Term Athlete Development and Application to Swimming and Tennis

Elizabeth Hibberd, PhD, LAT, ATC, University of Alabama

Long-Term Athlete Development in Softball

Erin Weaver-Cohen, MA, LAT, ATC, University of Alabama

Utilizing Strength and Conditioning for Long-Term Athlete Development

Michelle Martin Diltz, MS, SCCC, CSCS, University of Alabama

**Learning Lab, 5:15p.m. - 7:15p.m.**



Athletic Trainer’s: Utilization and Clinical Establishment of IV Access and Fluid Administration to Improve Patient Care, (III, IV), Essential

Eric Fuchs, PhD, ATC, Eastern Kentucky University

**THURSDAY, JUNE 27, 2019**

**Free Communication Rapid Fire Presentations, 7:00a.m. - 7:45a.m.**

**Pediatric Athletics: Research in the Area of Pediatric Injuries and Pediatric Sports**

Early Sport Specialization is Associated with Increased Chance Of Injury

Katherine McCall, Ithaca College

The Relationship Between Training Load and Neuromuscular Control in Adolescent Female Basketball Athletes

Eleanor Beltz, PhD, ATC, CSCS, Emory & Henry College

Self-Reported Physical Activity Volumes in Pediatric Patients with Overuse Knee Injuries

Julie Young, MA, ATC, PES, Nationwide Children's Hospital

Does a Parent's Background Influence Their Child's Participation in Contact Sports?

Allyssa Memmini, MS, ATC, University of Michigan

ACL Injury Prevention Knowledge of Youth Sport Coaches

Jessica Martinez, PhD, ATC, Old Dominion University

The Prevalence of Patellofemoral Pain in the Community

Jennifer Thorpe, MS, ATC, CSCS, Concordia University of Wisconsin

**Free Communication Rapid Fire Presentations, 7:00a.m. - 7:45a.m.**

**Epidemiology and Management of PFP**

Performance on a Clinical Dynamic Balance Task is Different in Individuals with Patellofemoral Pain

Andrea Baellow, Med, ATC, University of Virginia

Effect of Biofeedback Electrical Stimulation on Lower Extremity Kinematics in Females with Patellofemoral Pain

Alex Springer, MS, AT, ATC, University of Toledo

Comparing Kinesio® Tape to KT Tape® for Individuals with Patellofemoral Pain

Benjamin Marcus, ATC, CKTP, North Dakota State University

**Special Topic, 7:00a.m. - 8:00a.m.**

Disordered Eating and Mental Health: When It Is More Than Body Shaming and Sport Expectations? (I, II, IV, V), Essential

Shelly Mullenix, MS, ATC, Louisiana State University

Bear in Mind: Clinical Impact of Brain and CNS Changes After Knee Injuries, (II, IV), Advanced

Adam Lepley, PhD, ATC, University of Connecticut

### **Free Communication Oral Presentations, 7:00a.m. - 8:00a.m.**

#### **Recover From and Treatment for Lateral Ankle Sprains**

Does Injury History Impact the Recovery of Self-Report of Function During the First Two Weeks After an Ankle Sprain Injury? A Report From the Athletic Training Practice-Based Research Network

7:00a.m. - 7:15a.m.

Kenneth Lam, ScD, ATC, A.T. Still University

Comparison of Y Balance Test Scores at Baseline and 2-4 Weeks Following an Acute Lateral Ankle Sprain in Collegiate Athletes

7:15a.m. - 7:30a.m.

Bethany Wisthoff, MS, ATC, University of Delaware

Association Between Rehabilitation and Goal Achievement in Athletes Discharged From Care Following An Ankle Sprain: A Report From the Athletic Training Practice-Based Research Network

7:30a.m. - 7:45a.m.

Revay Corbett, MS, ATC, PES, University of Virginia

Comparison of Practice Patterns with International Ankle Consortium Recommendations for the Clinical Assessment of Lateral Ankle Sprain Injuries: A Report From The Athletic Training Practice-Based Research Network

7:45a.m. - 8:00a.m.

Ashley Marshall, PhD, ATC, A.T. Still University

### **Session, 7:00a.m. - 9:00a.m.**

Common Lower Extremity Sports Injuries: Some Are Not as Obvious, (I, II, IV), Essential  
*Presented by the American Academy of Podiatric Sports Medicine*

Brian Fullem, DPM, Elite Sports Podiatry

### **Feature Presentation, 7:00a.m. - 9:00a.m.**

When Every Day is a Circus: Applying Athletic Principles to Aerialists and Acrobats, (III, IV, V), Advanced



Systematic Approach to Emergency Preparedness

Brian Oudyk, ATC, CAT(C), CES, Cirque du Soleil

Managing Workload in High Performance Settings

Roisin McNulty, MPhty, Cirque du Soleil

A Circus of Chronic Conditions

Katherine Perlsweig, MS, ATC, CSCS, Cirque du Soleil

### **Learning Lab, 7:00a.m. - 9:00a.m.**

Faster: Running Efficiency for Lower Extremity Injury Prevention, (I, II, IV), Essential

Donald Kessler, MEd, ATC, U.S. Naval Warfare Center



Expecting Immediate Changes in Shoulder Dysfunction: A Systematic Approach to Enhance Clinical Decision-Making, (II, IV), Advanced  
Miguel Quintero, DAT, ATC, Viewpoint High School

**Free Communication Rapid Fire Presentations, 7:45a.m. - 9:00a.m.**

**Hip Muscle Function and Lower Extremity Mechanics**

Influence of Hip Strength Testing Position on Lower Extremity Muscle Activity  
Neal Glaviano PhD, AT, ATC, University of Toledo

EMG and Force Analysis of a Weightbearing Squat-Hold Position Compared to Traditional Hip Strength Assessment Positions

Kemery Sigmund, MS, LAT, ATC, Concordia University, Wisconsin

Relationships Among Knee, Hip, & Trunk 2-Dimensional Angles and Gluteal Muscle Activity During Squatting

David Bazett-Jones, PhD, AT, ATC, University of Toledo

The Relationship Between Hip Strength and Multiplanar Running Kinematics at the Hip and Knee

Victoria Holmes, MS, AT, Ohio University

Gluteal Muscle Activation in Participants With and Without Low Back Pain During a Dynamic Balance Task

Adrienne Fedyna Dembeck, University of Virginia

Assessment of Gluteal Neuromuscular Function with the Central Activation Ratio

Daniel Gilfeather, MS, AT, ATC, University of Toledo

Examining the Relationship Between Hip Strength and Time to Stabilization in Collegiate Volleyball Players

Sara Skammer, LAT, ATC, Montana State University

Relationship Between Hip Strength and LESS Scores in Youth Athletes Across Stages of Maturation

Gregory Crisafulli, BS, LAT, ATC, University of Alabama

Relationship Between Hip Strength, Lower Extremity Movement During a Single-Leg Step-Down Task and Upper Extremity Injury in Professional Baseball Players

Hannah Dove, PT, DPT, ATC, University of Southern California

**Best Practice Forum, 8:00a.m. - 9:00a.m.**



Sacrificing Long-Term Health for Quick Return-to-Play: Ankle Sprain to Ankle Osteoarthritis, (I), Advanced

Tricia Hubbard-Turner, PhD, ATC, University of North Carolina at Charlotte

Janet Simon, PhD, ATC, Ohio University

**Peer-to-Peer Discussion, 8:00a.m. - 9:00a.m.**



Communicating With Youth Sport Stakeholders About Specialization, (I), Advanced

David Bell, PhD, ATC, University of Wisconsin at Madison

Lindsay DiStefano, PhD, ATC, University of Connecticut

**Special Topics, 8:00a.m. - 9:00a.m.**

Outcomes That Support Utilizing ATCs in the Integrated Occupational Health Model, (I), Advanced  
Diana Burns, ATC, CEIS, CEES, ATI Worksite Solutions

- Facilitating Intrinsic Foot Muscle Training, (IV), Advanced  
Kitty Newsham, PhD, ATC, Saint Louis University

**Free Communication Oral Presentations, 8:00a.m. - 9:00a.m.**

**Athletic Training Documentation and Patient Reported Outcomes**

Unique Challenges and Needs for Patient Care Documentation in The Secondary School Setting

8:00a.m. - 8:15a.m.

Tricia Kasamatsu, PhD, ATC, California State University at Fullerton

Athletic Trainers' Perceptions of Patient Reported Outcomes Integration

8:15a.m. - 8:30a.m.

Lauren Gardner, MS, ATC, Michigan State University

Athletic Trainers' Knowledge and Application of Medical Documentation Following an Evidence-Based Educational Intervention

8:30a.m. - 8:45a.m.

Elizabeth Neil, MS, LAT, ATC, Indiana State University

Aspects of Technology That Influence Athletic Trainers' Current Patient Care Documentation Strategies In The Secondary School

8:45a.m. - 9:00a.m.

Sara Nottingham, EdD, LAT, ATC, University of New Mexico

**Free Communication Rapid Fire Presentations, 8:00a.m. - 9:00a.m.**

**Preparing and Supporting the Newly Credentialed AT**

Transition To Practice: Challenges and Facilitators to Professional Identity Development Following Graduation from a Professional Master's Level Program

Brianne Kilbourne, EdD, ATC, Emory & Henry College

Career Aspirations of Athletic Trainers in Their First Year of Employment Following Graduation from a Professional Preparation Masters Level Program

Jessica Barrett, PhD, ATC, Springfield College

Comparison of New Clinically Trained Faculty Socialization Experiences with New Non-Clinically Trained Faculty In Higher Education

Jennifer Plant, EdD, LAT, ATC, University of Central Florida

Grit: The Perseverance of Recently Credentialed Athletic Trainers During Their Transition to Practice

Ryan Rompola, DAT, LAT, ATC, Indiana State University

Developing a Comprehensive Theory of Professional Readiness in Athletic Training

Philip Szlosek, PhD, LAT, ATC, Bridgewater State University

Newly Credentialed Athletic Trainers' Onboarding Needs During the Transition to Practice  
Ashley Thrasher, EdD, LAT, ATC, Western Carolina University

Onboarding Provided for Newly Credentialed Athletic Trainers' During the Transition to Practice  
Stacy Walker, PhD, ATC, FNATA, Ball State University

Professional Program Preparation, Orientation and Mentoring Tactics Used in Developing Professional  
Responsibility in Early-Career Athletic Trainers  
Amanda Szabo, DAT, LAT, ATC, Indiana State University

**BOC EBP Approved Program, 9:15a.m. - 10:15a.m.**

Managing Back Pain Using Manual Therapy Techniques, (IV), Advanced  
Sue Falsone, PT, MS, ATC, Structure & Function Education, PLLC

Lengthening Your Perspective: Using Eccentric Exercise to Treat Neural and Morphological Deficits After  
Injury, (IV), Advanced  
Lindsey Lepley, PhD, ATC, University of Connecticut

**Best Practice Forum, 10:45a.m. - 11:45a.m.**



Enhancing Rehabilitation Outcomes Following Knee Injury: Overcoming Psychological Barriers, (I, II, IV),  
Advanced  
Grant Norte, PhD, ATC, Toledo University  
Neal Glaviano, PhD, ATC, Toledo University

**Special Topic, 10:45a.m. - 11:45a.m.**

The Who, What, and Why of Sport Specialization, (I, II), Essential  
Eric Post, PhD, ATC, San Diego State University

Advances in Sports Nutrition: The Latest in Nutrition, Supplementation, Relative Blood Work, Gene  
Testing and Glycogen Storage on All Aspects of Athletic Performance, (I, IV), Essential  
Dawn Weatherwax, RD, CSSD, ATC, Sports Nutrition 2Go

**Free Communication Oral Presentations, 10:45a.m. - 11:45a.m.**

**Concussion Reporting Behaviors and Intentions**

Examining the Relationship Between Coping Strategies and Intentions to Report Concussion Among  
Intercollegiate Athletes

10:45a.m. - 11:00a.m.

Rachel Le, MS, ATC, University of Georgia



Sport-Related Concussion Education, Concussion History and Chronic Traumatic Encephalopathy Beliefs of Collegiate Student-Athletes

11:00a.m. - 11:15a.m.

Erica Beidler, PhD, LAT, ATC, Duquesne University

Influence of Developmental and Sociological Factors on Concussion Knowledge, Attitudes and Self-Reporting Intentions

11:15a.m. - 11:30a.m.

Avinash Chandran, PhD, MS, University of North Carolina at Chapel Hill

The Influence of Concussion Knowledge and Years of Clinical Experience on Athletic Trainers' Concussion Healthcare Practices

11:30a.m. - 11:45a.m.

Landon Lempke, MEd, LAT, ATC, University of Georgia

The Influence of Attitudes, Social Pressure and Perceived Control on Intention to Report Concussion Symptoms in Collegiate Athletes

11:45a.m. - 12:00p.m.

Daniel Baer, PhD, LAT, ATC, West Chester University of Pennsylvania

### **Free Communication Rapid Fire Presentations, 10:45a.m. - 11:45a.m.**

#### **Gait Neuromechanics in Those with Chronic Ankle Instability**

The Foot and Ankle Ability Measure-Sport is Related to Spatiotemporal Gait Measures in Individuals with Chronic Ankle Instability

Rae Allison, LAT, ATC, University of Kentucky

Sagittal Plane Ankle Kinematics and Variability During Walking and Running in Individuals With and Without Chronic Ankle Instability

Yuki Sugimoto, MS, LAT, ATC, University of North Carolina at Greensboro

Chronic Ankle Instability Effects Sural Nerve Reflexes in the Gastrocnemius During the Early Stance Phase of the Gait Cycle

Leif Madsen, PhD, ATC, Indiana University

Sudden Ankle Inversion Perturbation During Walking Alters Gait Kinematics in Chronic Ankle Instability Patients

Seunguk Han, MS, ATC, Brigham Young University

How Patients with Chronic Ankle Instability React After Ankle Inversion Perturbation During Walking

Hwigeum Jeong, MS, LAT, ATC, Brigham Young University

Altered Muscle Activation Patterns During Walking Following Sudden Inversion Perturbation in Patients with Chronic Ankle Instability

Hyunsoo Kim, PhD, ATC, West Chester University

Differences in the Shank-Rearfoot Joint Coupling, Kinematics and Kinetics Among Subject with Chronic Ankle Instability, Coper and Controls During Jogging

Inje Lee, CSCS, Yonsei University

## **Free Communication Oral Presentations, 10:45a.m. - 12:15p.m.**

### **Foot and Ankle Case Reports**

Functional Outcome Measures in Collegiate Athletes After Turf Toe Injuries: A Level 2 Case Series

10:45a.m. - 11:00a.m.

Kevin Shubow, MEd, ATC, University of Virginia

Navicular Fracture in a Collegiate Soccer Player: A Level 3 Clinical Case Study

11:00a.m. - 11:15a.m.

Emily Kruithof, LAT, ATC, CSCS, University of Kentucky

The Use of Blood Flow Restriction as Part of a Non-Operative Rehabilitation Program for a Talus Fracture in a Professional Hockey Player: A Case Report

11:15a.m. - 11:30a.m.

Geoff Dover, PhD, CAT(C), ATC, Concordia University

Achilles Tendon Re-Rupture Proximal to the Primary Repair in a Collegiate Football Punter

11:30a.m. - 11:45a.m.

Christine Poole, MS, ATC, OTC, The Steadman Clinic

Reconstruction of a Pathological Pes Planovalgus Deformity in a Female High School Athlete

11:45a.m. - 12:00p.m.

Sean Dorrian, Marist College

Diagnosis and Treatment of a Left Talus Lateral Process Fracture and Subtalar Loose Bodies

12:00p.m. - 12:15p.m.

Jared Sweigard, MS, ATC, The Steadman Clinic

## **Sessions, 10:45a.m. - 12:45p.m.**



### **Biologic Treatments, (IV), Advanced**

*Presented by the NATA Research & Education Foundation*

Steven Singleton, MD, Texas Health Physicians Group

The Athletic Training Milestones: How Do We Assess and Promote Progressive Clinical Behaviors?, (V), Advanced

*Presented by the NATA Professional Education Committee*

Competency-Based Theory and Science of the Athletic Training Milestones

Eric Sauers, PhD, ATC, FNATA, A.T. Still University

Hollie Walusz, MA, ATC, PES, Boston University

Forrest Pecha, MS, LAT, ATC, St. Luke's Sports Medicine

Using the Athletic Training Milestones to Assess Clinical Competence to Enhance Clinician Performance

R. Mark Laursen, MS, ATC, Boston University

The Active Attacker: How To Prevent, Prepare, and Perform in Times of Crisis, (I, III, V), Essential

*Presented by the NATA Secondary School Athletic Trainers' Committee*

Breaking Point: Mental Health EAP for Potentially Violent Students

Stacey Ritter, MS, ATC, San Luis Sports Therapy

Collaboration, Communication and Care: The Link Between Athletic Trainer and EMS During an Active Attacker Event

Leslie Shaffer, CCT-P, NREMT-P, American Medical Response

Appropriate Implementation of Emergency Action Plan for Active Attacker Scenario: Best Practices and Methods

Brian Driscoll, LAT, ATC, Clark County School District

James Hamburg, MS, LAT, ATC, Clark County School District

**Feature Presentation, 10:45a.m. - 12:45p.m.**

For Better or for Worse? Chasing the Elusive Symmetry, (V), Essential

Symmetry in Soccer Before and After Injury

J. Craig Garrison, PhD, PT, ATC, Texas Health Sports Medicine

Symmetry in Baseball Before and After Injury

Ellen Shanley, PhD, PT, OCS, ATI Physical Therapy

Symmetry in Swimming Before and After Injury

Bobby Jean Lee, PT, DPT, SCS, Texas Health Sports Medicine

**Learning Lab, 10:45a.m. - 12:45p.m.**

Manual Therapy for the Dancer's Lower Extremity, (IV), Essential

Megan Bane, MS, ATC, OSU Wexner Medical Center

Science Meets Practice : Advancing Utilization of Upper Extremity Plyometrics Based on Kinematic, Kinetic and Volume Dosage Evidence, (IV), Advanced

Bryan Riemann, ATC, Georgia Southern University

**Peer-to-Peer Discussion, 11:45a.m. - 12:45p.m.**

Identifying and Mitigating Lower Leg Injury Risk Factors in Tactical and Traditional Athletes, (I), Advanced

Timothy Mauntel, PhD, ATC, Walter Reed National Military Medical Center

Kenneth Cameron, PhD, MPH, ATC, Keller Army Community Hospital

**Special Topic, 11:45a.m. - 12:45p.m.**

Advanced Implementation of Weight Charts to Determine Hydration Changes Across Sport Settings, (I, II), Essential

Susan Yeargin, PhD, ATC, University of South Carolina



The Traditional AT's Guide to the Performing Patient, (IV), Essential

Laura Mertz, MS, LAT, ATC, Behind the Scenes Medical Consulting

**Free Communication Oral Presentations, 12:00p.m. - 1:00p.m.**

**Professional Issues Facing College Athletic Trainers'**

Work-Family Guilt in Collegiate Athletic Trainers

12:00p.m. - 12:15p.m.

Kelsey Rynkiewicz, MS, LAT, ATC, University of Connecticut

The Work Life Balance: A Perspective of the Athletic Trainer's Spouse

12:15p.m. - 12:30p.m.

Stephanie Mazerolle, PhD, ATC, FNATA, University of Connecticut

Leadership, Job Satisfaction and Intent to Leave in NCAA Division I Athletic Trainers

12:30p.m. - 12:45p.m.

Lindsey Schroeder, EdD, LAT, ATC, University of North Carolina at Wilmington

The Relationship Between Burnout and Substance Use in Collegiate Athletic Trainers

12:45p.m. - 1:00p.m.

Leslie Oglesby, PhD, LAT, ATC, University of Southern Mississippi

**Free Communication Oral Presentations, 12:00p.m. - 1:15p.m.**

**Lower Extremity Post-Traumatic Osteoarthritis and Cartilage Health**

The Epidemiological Study of Post-Traumatic Knee Osteoarthritis After Cruciate Ligament Injury in the Young & Middle-Aged Population Using Korean National Health Insurance Sharing Service 201,051 Cohort Data

12:00p.m. - 12:15p.m.

Sae Yong Lee, PhD, ATC, CSCS, Yonsei University

Talar Cartilage T1rho MRI Based Volume is Associated with Talar Cartilage Ultrasonography Based Thickness

12:15p.m. - 12:30p.m.

Kyeongtak Song, MS, ATC, University of North Carolina at Chapel Hill

Dominant to Non-Dominant Limb Measures of Knee Cartilage Thickness

12:30p.m. - 12:45p.m.

Hsin-Min Wang PhD, China Medical University

Ankle Cartilage Composition Associates with Physical Activity and Fear-Avoidance in Those with Chronic Ankle Instability

12:45p.m. - 1:00p.m.

Erik Wikstrom, PhD, ATC, University of North Carolina at Chapel Hill

Ultrasonographic Analysis of Acute Cartilage Morphological Alteration Following Conventional Rehabilitative Exercises in Patellofemoral Pain Individuals

1:00p.m. - 1:15p.m.

Hyunjae Jeon, MS, ATC, University of North Carolina at Charlotte

**Free Communication Oral Presentations, 12:15pm - 12:45p.m.**

**Role and Hiring of DAT Credentialed Athletic Trainers'**

Academic Employers' Impressions Regarding the Qualifications of Athletic Trainers with the Doctor of Athletic Training Degree

11:45a.m. - 12:00p.m.

Cailee Welch Bacon, PhD, ATC, A.T. Still University

Academic Employers' Perceived Benefits and Deterrents of Hiring a Doctor of Athletic Training Credentialed Faculty Member

12:00p.m. - 12:15p.m.

Lindsey Eberman, PhD, LAT, ATC, Indiana State University

The Role of Academic Debt and Benefits to the Profession on the Interest of Professional Post-Baccalaureate Athletic Training Students' in a Doctor of Athletic Training Degree

12:15p.m. - 12:30p.m.

Gary Cohen, MS, LAT, ATC, Old Dominion University

**Free Communication Oral Presentations, 12:30p.m. - 1:45p.m.**

**Head Impact Outcomes**

Kinematic Head Impacts and Subjective Responses in Youth Australian Footballers

12:30p.m. - 12:45p.m.

Mark Hecimovich, PhD, ATC, University of Northern Iowa

Comparison of Head Impact Mechanisms and Type of Play for Women's Lacrosse Over 4 Years

12:45p.m. - 1:00p.m.

Jessica Riquelme, University of Lynchburg

Efficacy of 3D Multiple Object Tracking and Head Impacts and Cognitive Performance in Division III Lacrosse

1:00p.m. - 1:15p.m.

Erin Marchesseault, ATC, LAT, Southeastern Louisiana University

Comparing Men's Soccer Head Impact Characteristics Over a Three Year Time Period

1:15p.m. - 1:30p.m.

Karlie Ennis, University of Lynchburg

Effect of Head Impacts on Vestibular Function

1:30p.m. - 1:45p.m.

Theresa Miyashita, PhD, ATC, Concordia University at Chicago

**Special Topic, 1:15p.m. - 2:15p.m.**

Using Continuous Quality Improvement to Evaluate and Improve Your Concussion Management Plan, (V), Advanced

Tamara Valovich McLeod, PhD, ATC, FNATA, A.T. Still University



Can We Patch the Potholes?: Treatment Options and Expectations for Return-to-Sport and Long-Term Outcomes for Articular Cartilage Injuries, (IV), Advanced

Jennifer Howard, PhD, LAT, ATC, Appalachian State University

**Free Communication Oral Presentations, 1:15p.m. - 2:15p.m.**

**Real Life Education Standardized Patients and IPE**

Athletic Trainers' Preparation, Expectations and Outcomes From a Standardized Patient Encounter

1:15p.m. - 1:30p.m.

Brett Boddicker, DAT, LAT, ATC, Indiana State University

The Long-Term Impact of Standardized Patient Encounters During Professional Education on Athletic Training Professional Practice

1:30p.m. - 1:45p.m.

Amanda Jarriel, PhD, ATC, LAT, Georgia College & State University

Experiences of Professional Athletic Training and Clinical Psychology Students After Participating in an Interprofessional Standardized Patient Encounter

1:45p.m. - 2:00p.m.

Stacey Gaven, PhD, LAT, ATC, University of Indianapolis

Assessing Changes in Student Knowledge and Attitudes Following an IPE Experience

2:00p.m. - 2:15p.m.

Scott Heinerichs, EdD, LAT, West Chester University

**Free Communication Rapid Fire Presentations, 1:15p.m. - 2:15p.m.**

**The Burden of Injury In The Performing Arts**

Posterior Tibial Nerve Entrapment in a Classical Ballet Dancer

Leslie Deleget, MS, ATC, Harkness Center For Dance Injuries

Concussion Recovery in Two Dancers: A Case Study

Lauren McIntyre, ATC, Harkness Center For Dance Injuries

Epidemiology of Injury and Illness in a Mid-Atlantic WGI Independent World Indoor Drumline

Giulia Disanto, NREMT, VAEMT, CSCS, Furman University

Incidence of Musculoskeletal Injuries in a World-Class Drum Corps

Zachary Dangel, MS, LAT, ATC, Indiana University

Injury Incidence and Exposure in Collegiate Dancers - A 2-Year Prospective Study

Victoria Fautroy, LAT, ATC, George Mason University

Dancers' Perceptions and Utilization of Strength Training and Conditioning: A Qualitative Approach

Miriam Rosenthal, MS, LAT, ATC, University of Maryland

Evaluating Movement Dysfunctions in Performing Artists Using the Selective Functional Movement Assessment

Jena Hansen-Honeycutt, DAT, LAT, ATC, George Mason University

Do FMS Scores Predict Injury Risk in Collegiate Dancers - A Prospective Analysis

Sarah Coogan, MS, LAT, ATC, George Mason University

**Sessions, 1:15p.m. - 3:15p.m.**

From the Office to the Field: The AT and Multicredentialing Orthopedic Technologists Certified Bridging the Gap, (V), Essential

*Presented by the National Association of Orthopaedic Technologists*

Katherine Bagnato, LAT, ATC, OTC, BSN Medical

Anthony Lungstrum, ATC, OTC, Missouri Orthopaedic Institute

A Three Year Review of the AT's Understanding and Confidence of Critical Incident Stress Management, (V), Essential

*Presented by the NATA ATs Care Committee*

David Middlemas, EdD, ATC, CCISM, Montclair State University

Kathleen Scott, MS, ATC, National Athletic Trainers' Association

Patrick Karns, MA, ATC, ProAdvocates

The Relationship of the Team Dentist to the Sports Medicine Team, (I, II, III), Essential

*Presented by the Academy of Sports Dentistry*

Immediate vs Delayed Treatment

Hans Stasiuk, DMD, Stasiuk Dentistry

Digital Fabrication of Custom Mouthguards and Oral Appliances

Byron Blasco, DMD, Byron Blasco LTD

Shoulder Instability, Clavicle Fractures, AC Joint Injuries to the Contact Athlete, (II, IV), Advanced

*Presented by the American Orthopedic Society for Sports Medicine*

Pre-season, In-Season and Post-Season Management

Brian Busconi, MD, UMass Memorial Health Care

Anterior and Posterior Dislocations

Jennifer Brodeur, MS, ATC, CES, UMass Memorial Health Care

Mid-shaft Clavicle Fractures

Anthony Cerundolo, MS, ATC, LAT, College of the Holy Cross

**Feature Presentation, 1:15p.m. - 3:15p.m.**

Achilles Heel No Longer! Prevention Strategies and Specific Interventions for Achilles Tendon Injury in Elite Athletes, (I, IV), Advanced

Tendon Basics: A Review of Current Evidence on Importance of Mechanical Load in Tendon, and Implications of Load Tolerance on Injury Prevention, Rehabilitation and Performance


Jodi Schneider, MS, ATC, Princeton University


How to Design a Protocol to Assess Tendon Properties and Reduce Tendon Injury Through a Competitive Season

Sarah Lyons, MS, ATC, PES, Stanford University

Effective Implementation of Rehabilitation Techniques to Treat Achilles Tendinopathy in Elite Runners  
Kimberly Detwiler, MS, ATC, CSCS, University of Colorado

**Learning Lab, 1:15p.m. - 3:15p.m.**

 MARCH Trauma Assessment: Best Practice Recommendations for Implementing the MARCH Assessment in the Pre-Hospital Environment, (II, III), Advanced  
Edward Strapp, TPc, FPc, ATC, Maryland State Police

 Treating Adolescent Throwing Injuries, (II, IV), Essential  
Herman Hundley, AT, CSCS, Nationwide Children's Hospital

**Free Communication Oral Presentations, 1:30p.m. - 3:00p.m.**

**Risk Factor for Shoulder and Elbow Injuries in Overhead Athletes**

Predicting Injury History in High School Pitchers from Two- and Three-Dimensional Kinematics  
1:30p.m. - 1:45p.m.

Aaron Struminger, PhD, ATC, Eastern Michigan University

Preseason Neck Mobility is Associated with Throwing-Related Shoulder and Elbow Injury, Pain and Disability in College Baseball Pitchers

1:45p.m. - 2:00p.m.

Laurie Devaney, PT, ATC, PhD, University of Connecticut

Relationship Between Spine and Hip Range of Motion, Hip Strength and Injury Risk in Collegiate Baseball Athletes

2:00p.m. - 2:15p.m.

Steven Tucker, PhD, ATC, University of Central Arkansas

Predictors of Shoulder Injuries in Female Collegiate Swimmers

2:15p.m. - 2:30p.m.

Eric Lippincott, PhD, LAT, ATC, Lock Haven University

The Acute:Chronic Workload Ratio is Associated with Injury in Adolescent Tennis Players

2:30p.m. - 2:45p.m.

Guadalupe Mexicano, ATC, LAT, Texas State University

The Acute: Chronic Internal Workload Ratio in Relation to Joint Pain in Adolescent Tennis Players

2:45p.m. - 3:00p.m.

Kristin Aguilar, ATC, LAT, Texas State University

**Free Communication Oral Presentations, 2:00p.m. - 3:15p.m.**

**Emergency Care Considerations In The Secondary School Setting**

Athletic Directors' Perceptions Regarding the Value Of Athletic Trainers Employed in the Secondary School Setting

2:00p.m. - 2:15p.m.



Stephanie Clines, PhD, LAT, ATC, Sacred Heart University

The Odds of Having Venue-Specific Emergency Action Plans When Standing Orders are in Place in Schools with an Athletic Trainer

2:15p.m. - 2:30p.m.

Brad Endres, MS, ATC, CSCS, University of Connecticut

Prevalence of a Best Practice Emergency Action in Montana Class AA Secondary Schools

2:30p.m. - 2:45p.m.

Alexandra Davis, University of Connecticut

Adherence to State Concussion Legislation in High Schools with Varying Levels of Access to Certified Athletic Trainers

2:45p.m. - 3:00p.m.

Jacob Resch, PhD, AT, University of Virginia

Knowledge and Health Behavior of School Nurses' Related to Emergency Action Plans Adoption in Secondary School Athletics

3:00p.m. - 3:15p.m.

Samantha Scarneo, PhD, ATC, Korey Stringer Institute

**Special Topic, 2:15p.m. - 3:15p.m.**

Marching Band/Color Guard Injuries and Treatment Emphasizing the Role of Athletic Trainers for These Artistic Athletes, (I, II, IV), Advanced

Mary Mundrane-Zweiacher, MPT, ATC, CHT, Premier Physical Therapy and Sports Performance

Myofascial Interventions: An Evidence-Based Update, (II, IV), Essential

Scott Cheatham, PhD, DPT, ATC, CSU Dominguez Hills

Olympic Lifts in Injury Prevention and Rehabilitation, (I, IV), Essential

Brian Gearity, PhD, FNCSA, ATC, Denver University

**Free Communication Oral Presentations, 2:30p.m. - 3:30p.m.**

**Experiences of ATs Providing Medical Care to Elite Athletes**

Experiences of Athletic Trainers Working in the Professional Setting

2:30p.m. - 2:45p.m.

Katelyn Zweigle, DAT, LAT, ATC, Indiana State University

Experiences of Athletic Trainers Working in the Professional Setting

2:45p.m. - 3:00p.m.

Nick Spangler, DAT, LAT, ATC, Indiana State University

Collegiate Athletic Trainers' Experiences with External Pressures Faced During Medical Care Decision-Making

3:00p.m. - 3:15p.m.

Alicia Pike, MS, ATC, University of Connecticut

Identification of Professional Values for The Athletic Training Profession: A Pilot Study  
3:15p.m. - 3:30p.m.  
Carrie Baker, PhD, ATC, University of Tennessee At Chattanooga

**Free Communication Oral Presentations, 2:30p.m. - 3:30p.m.**

**Injury and Wellness In Public Safety Individuals**

The Influence of Firefighter Equipment and Gear on Dynamic Postural Stability  
2:30p.m. - 2:45p.m.  
Roger Kollock, PhD, ATC, CSCS, University of Tulsa

Barriers to Promoting Injury and Illness Prevention in the Fire Service: A Qualitative Report From Fire Chiefs  
2:45p.m. - 3:00p.m.  
Kenneth Games, PhD, LAT, ATC, Indiana State University

Time-Loss From Work Due to Musculoskeletal Injuries in Public Safety Employees: A Systematic Review  
3:00p.m. - 3:15p.m.  
Elisa Guerra, DAT, LAT, ATC, University of Arizona

Fire Chiefs Perceived Barriers to Reporting Mental and Behavioral Illnesses in the Fire Service  
3:15p.m. - 3:30p.m.  
Bradley Jackson, MS, LAT, ATC, Indiana State University

**Free Communication Rapid Fire Presentations, 3:15p.m. - 4:15p.m.**

**Nutrition Related Screening**

Disordered Eating Risk and Body Image Dissatisfaction in Physically Active College-Aged Students  
Courtney Bradley, ATC, SCAT, University of South Carolina

Disordered Eating Behaviors and Body Image Factors Influencing Body Mass Index in Male High School Athletes  
Sarah Tracey, Marshall University

Clinical Use of the EAT-26: Prevalence of Eating Disorder Risk in Male and Female Collegiate Student-Athletes During Non-Anonymous Screening  
Jordan Crills, LAT, ATC, West Chester University of Pennsylvania

Comparing Blood Serum Values of Vitamin D and Calcium in Division I Female Athletes  
Katie Lyman, PhD, ATC, NREMT, North Dakota State University

Serum Vitamin D Levels are Less Associated with Bone Mineral Density in Athletes Living in the Southern United States  
Jeffrey Parr, PhD, LAT, ATC, University of Southern Mississippi

**Special Topics, 3:30p.m. - 4:30p.m.**

The Relationship Between Carpal Kinematics and Wrist Pain in the Athlete, (I, IV), Essential  
Rachel Fraser, OTR/L CHT, Hartford Healthcare

**Sessions, 3:30p.m. - 5:30p.m.**

Sports Vision Training Theory to Application, (I), Essential  
*Presented by the American Optometric Association - Sports Vision Section*  
Derek Cunningham, OD, Dell Laser Consultants  
Keith Smithson, OD, Northern Virginia Doctors of Optometry  
Fraser Horn, OD, Pacific University

Your Profession Under Attack Threats to Your Practice, (V), Advanced  
*Presented by the NATA Government Affairs Committee*  
Scot Raab, PhD, AT, ATC, Northern Arizona University  
Amy Brugge, EdD, LAT, CHDA, Minnesota State University at Mankato  
Shannon Fleming, MA, ATC, Board of Certification

Post-Professional Advancement in Athletic Training: Roadmap to the Future, (V), Essential  
*Presented by the NATA Post Professional Education Committee*

Educational Pathways in Athletic Training: The Current Road Map  
Jordan Hamson-Utley, PhD, LAT, ATC, University of St. Augustine for Health Sciences

Educational Pathways in Athletic Training: Making Data-Driven Decisions  
Bonnie Van Lunen, PhD, ATC, FNATA, Old Dominion University

Educational Pathways in Athletic Training: The Future Road Map  
Barton Anderson, DHSc, AT, A.T. Still University

Safety, Well-Being and Cheerleading, (I), Essential  
Understanding Cheerleading and Reducing Injury Rates at all Levels of Cheerleading  
Karen Lew Feirman, DHSc, LAT, ATC, USA Cheer  
Summer Ott, PsyD, McGovern Medical School at UT Health

**Feature Presentation, 3:30p.m. - 5:30p.m.**

Get Off My Back!: Why Moods and Attitudes Are an Important Sport-Related Concussion Consideration,  
(I, II), Advanced

Getting More From Your Baseline Testing Through Patient-Oriented Outcomes  
Tamara Valovich McLeod, PhD, ATC, FNATA, A.T. Still University

Emotion Dysregulation: What Is It and Why Should You Care?  
Melissa Fraser, PhD, ATC, Texas State University

Psychosocial Pressures Experienced by Athletic Trainers: The Effect on Concussion Outcomes and  
Collaborative Management Strategies  
Melissa Kay, MS, ATC, University of North Carolina at Chapel Hill

**Learning Lab, 3:30p.m. - 5:30p.m.**



Neuromuscular Function Concepts, (IV), Advanced  
Joseph Micca, PT, DPT SCS, Buffalo Bills



Put Your Best Foot Forward: Preventing, Assessing and Treating Common Injuries in Performing Arts, (I, II, III, IV), Advanced  
Gail Ayotte, MEd, ATC, LAT, Rockettes Radio City Music Hall

## **FREE COMMUNICATION POSTER PRESENTATIONS**

### **ACL and Meniscal Injury**

Brain Activation During Anterior Knee Joint Loading  
Kyoungyoun Park-Braswell, MS, ATC, University of North Carolina at Greensboro

Clinical Evaluation of Sport-Related Meniscal Pathologies: A Report From the Athletic Training Practice-Based Research Network  
Kaitlyn Jones, ATC, A.T. Still University

Effects of Knee Injury History on Femoral Articular Cartilage Response Following a Competitive Rugby Season: A Prospective Observational Study  
Miyuki Hori, ATC, Ritsumeikan University

Assessment of The Foundational Evidence Supporting the Efficacy of ACL Ipps: A Systematic Review  
Yu-Lun Huang, MS, ATC, Oregon State University

Effect of Delayed Anterior Cruciate Ligament Reconstruction on the Medial Meniscus: A Critically Appraised Topic  
Hayden Lounsbury, Duquesne University

Patient Reported Outcomes for Use of Platelet Rich Plasma in the Treatment of Post Surgical Pain  
Meghan Maume Miller, MS, ATC, Ohio State University

Cognitive Training Improves Joint Stiffness Regulation and Knee Function in ACLR Patients  
Yong Woo An, PhD, ATC, New Mexico State University

Relationship Between Quadriceps Corticomotor and Neuromechanical Function After ACL Reconstruction  
Sarah Scheurer, MS, ATC, University of Toledo

### **Acute Upper Extremity Case Studies**

Posterior Shoulder Instability in a Professional Basketball Player: A Level 3 CASE Report  
Michelle Anumba, PT, DPT, University of Texas at Arlington

Acute Subluxation and Multi-Directional Instability in a Male, Collegiate Basketball Patient: A Level 3 Exploration Case Study  
Connor Burton, DAT, LAT, ATC, Indiana State University

Acromioclavicular Joint Sprain in a College Football Athlete  
Robert Fouda, Florida Gulf Coast University

Bilateral Sternoclavicular Joint Reconstruction in a Collegiate Swimmer with Chronic Sternoclavicular Joint Instability

Hanna Mundy, MS, ATC, The Steadman Clinic

Outpatient Clinic Setting: Thoracic Pain in a Recreational Weightlifter

Joanna McClelland, MS, LAT, ATC, University of Florida

The Evaluation and Treatment of Scapular Body and Coracoid Process Fractures in a High School Football Athlete: Level 4 CASE Study

Andrea Harpestad, University of South Florida

Biceps Tendon Pathology in a Minor League Baseball Athlete

Lexa Smith, Florida Gulf Coast University

Distal Triceps Brachii Tendon Rupture and Ulnar Collateral Ligament Sprain in a Collegiate Basketball Player

Mark Gildard, MS, ATC, Marist College

Acute First Rib Fracture in a Batting Athlete

Danielle Vitale, University of Georgia

### **Adaptations In Those with Chronic Ankle Instability**

The Relationship Between Mechanical Laxity and Perceived Instability Among High School Athletes with Chronic Ankle Instability

Yoshiki Imazaki, MA, ATC, CSCS, Alderson Broaddus University

Single Leg Landing Energetics in Individuals with Chronic Ankle Instability

Cathleen Brown, PhD, ATC, Oregon State University

The Effect of Progressive Visual Occlusion on Postural Control Response in Those With and Without Chronic Ankle Instability

Lilly VanDeMark, LAT, ATC, University of North Carolina at Chapel Hill

Differences in Sensory Organization Between Chronic Ankle Instability and Control Participants

Adam Rosen, PhD, ATC, University of Nebraska at Omaha

Sagittal Ankle ROM Gain During Squats Associated with Increased Frontal Hip and Transverse Knee ROM for Chronic Ankle Instability Individuals

Christine Samson, PhD, ATC, Southern Utah University

Spinal Reflexive Excitability of Lower Extremity Musculature in Individuals With and Without Chronic Ankle Instability: A Systematic Review and Meta-Analysis

Ryan McCann, PhD, ATC, CSCS, Old Dominion University

Plantar Cutaneous Sensation Deficits in Those with Chronic Ankle Instability: A Systematic Review

Matthew Rivera, DAT, LAT, ATC, Indiana State University

Corticomotor Excitability in the Lower Extremity Musculature in Individuals with Chronic Ankle Instability: A Systematic Review and Meta-Analysis  
Ashley Suttmiller, MEd, ATC, Old Dominion University

Kinesiophobia Found to be Associated with Chronic Ankle Instability  
Jeremy Schimmel, George Mason University

Predicting Movement Strategies in Chronic Ankle Instability  
J. Ty Hopkins, PhD, ATC, FNATA, Brigham Young University

Chronic Ankle Instability Impairs Submaximal Force Steadiness  
Hyunwook Lee, MS, ATC, LAT, Brigham Young University

Decreased Isometric Peak Torque at the Ankle And Hip in Young and Middle-Aged Adults with Chronic Ankle Instability  
Katherine Bain, ATC, PT, University of Kentucky

Abductor Hallucis Cross-Sectional Area And Activation in Individuals with Chronic Ankle Instability  
Christina Jones, LAT, ATC, University of Kentucky

Towards a More Functional Test in Athletes with a History of Lateral Ankle Sprains  
Sarah Coronel, MEd, ATC, University of Virginia

Sagittal Plane Knee Angle at Initial Contact From Landing is Related to Self-Reported Function in Individuals with Chronic Ankle Instability  
Jacob Hartzell, LAT, ATC, University of Kentucky

### **Bacterial and Fungal Infections**

Effectiveness of Four Decontamination Techniques on Strength Training Equipment After Use in an NCAA D-II Collegiate Weight Room  
Lawrence Bogner, Saginaw Valley State University

Sanitation Efficacy of 70% Isopropyl Alcohol vs Blue Light Treatment on Reusable Electrodes  
Rylie Miller, Southern Utah University

Bacterial and Fungal Infections Initiated From Corneal Abrasion in a Collegiate Basketball Athlete  
Nicholle Galletti, MA, Florida International University

Staphylococcus Aureus Bacterial Infection of Biceps Femoris– Level 4 Clinical CASE Study  
Heather Key, SCAT, ATC, University of South Carolina

### **Baseline Concussion Assessments**

Association Between Symptom Cluster Severity and Baseline Neurocognitive Scores in Collegiate Student-Athletes  
Thomas Bowman, PhD, ATC, University of Lynchburg

Prevalence of Unexpected Brain MRI Findings and Relative Risk of Concussion Diagnosis During Sports Participation: A Prospective Longitudinal Imaging Study  
Kim Barber Foss, MS ATC, Cincinnati Children's Hospital

Quality of Life and Presence of Symptom Clusters During Baseline Neurocognitive Testing  
Emily Asewicz, University of Lynchburg

Current Evidence in Management of Concussion Baseline Testing in ADHD and Learning Difficulties Patients  
Mindi Fisher, DAT, LAT, ATC, Temple University

Gender Differences on Baseline Child Sport Concussion Assessment Tool 5th Edition Performance Among Middle School Students  
Patricia Kelshaw, MS, LAT, ATC, George Mason University

The Association of Baseline Child Sport Concussion Assessment Tool 5th Edition Performance and Primary Language Spoken at Home Among Middle School Students  
Vanessa Abrams, MAT, LAT, ATC, George Mason University

Examining Age Differences on Baseline Child Sport Concussion Assessment Tool 5th Edition Performance Among Middle School Students  
Eric Piatchek, LAT, ATC, George Mason University

Baseline Differences Between High School and Collegiate Athletes on the Sport Concussion Assessment Tool 5 (SCAT5)  
Kyle Petit, MS, ATC, Michigan State University

Examining Neurocognitive Performance Across Varying Levels of College Contact Sports  
Abigail Bretzin MS, ATC, Michigan State University

### **Case Studies**

Comparison of Secondary School Boys' and Girls' Lacrosse Injuries Sustained Above the Transverse Plane  
Sara Quetant, LAT, ATC, Med, Datalys Center for Sports Injury Research And Prevention

Outcomes Following Multi-Ligament Knee Reconstruction and Novel Meniscus Radial Repair Technique: Return to Olympic Level Skiing.  
Kevin Berning, MS, ATC, The Steadman Clinic

Non-Contact Femoral Fracture with No Preexisting Pathology in a High School Football Player: Level 4 Clinical CASE Study  
Treven Gezella, LAT, ATC, University of Florida

Parsonage Turner Syndrome in a Tactical Athlete: A Case Study  
Savannah Bailey, DAT, LAT, ATC, A.T. Still University

Hemiplegic Migraines in a Female Collegiate Basketball Student-Athlete  
Kathryn Waddell,

Idiopathic Intracranial Hypertension in a Collegiate Softball Player: A Case Report  
Adam Thompson, PhD, LAT, ATC, Indiana Wesleyan University

Closed Displaced Fracture of the Coracoid Process and Vitamin D Deficiency in Adolescent Athlete  
Michael Palumbo, Youngstown State University

Torn Plantar Plate and Os Trigonum Irritation in Female Collegiate Soccer Athlete  
Kara Trella, Youngstown State University

15-Year-Old Athlete Disqualified from Sport After Accumulation of Concussions  
Anne Skjoldahl, Florida International University

Plantar Plate Fracture in Male Collegiate Football Player  
Joel Acosta, Florida International University  
Spontaneous Knee Effusion in an Adolescent Soccer Player: Level 4 Case Study  
Christopher Joyce, PhD, ATC, LAT, University of North Florida

Myositis Ossificans Leads to Coupled Diagnosis of Vastus Intermedius Tear in Elite Junior Hockey Athlete  
Amy Abdelrasoul, Youngstown State University

Mild Jugular Compression Reduces White Matter Alterations in High School-Aged Males Playing Collision Sports  
Megan Nye, ATC, Select Physical Therapy

### **Concussion Assessment Techniques**

Factors Affecting the Timed Tandem Gait Test in Healthy Physically Active College-Aged Individuals  
Ashley Littleton Santo, PhD, LAT, ATC, Towson University

Motor Performance During Single and Dual-Task Administration of a Novel Dual-Task Assessment for Sport Concussion  
Nicholas Erdman, MS, AT, University of Virginia

The Influence of Dual Task Paradigm on Reaction Time Utilizing a Light Board  
Nicholas Hatstrup, ATC, CSCS, A.T. Still University

Exploring the Effects of a Neck Strengthening Program on Neurocognition Following Purposeful Soccer Heading  
Katelyn Waring, University of Lynchburg

Examination of Concussions and Their Effect on Functional Movement Screen Scores in Collegiate Athletes  
Sarah Roger, MS, ATC, University of Delaware

Establishing Reliability of the Dynavision D2 Reaction Tests in Female Adolescent Athletes  
Hannah Gray, ATC, Xavier College Preparatory



### **Concussion History**

Comparison of Symptom Frequency and Symptom Severity in Recently Concussed Athletes and Orthopedic Controls

Phillip Worts, MS, LAT, ATC, Tallahassee Orthopedic Clinic

Concussion History Influences Neurovascular Coupling Response to Visual Tasks in Special Operations Forces Personnel

Patricia Combs, Med, ATC, University of North Carolina at Chapel Hill

Dynamic Postural Stability Deficits in Collegiate Athletes with a History of Concussion

Nicholas Heebner, PhD, ATC, University of Kentucky

The Influence of Concussion History on Postural Stability in Collegiate Athletes

Daniel Rosenblum, University of Virginia

Ultrasound Imaging of Neck Musculature in Individuals With and Without History of Concussion

Samantha Paisz, MEd., ATC, University of Virginia

The Influence of Concussion History on Kinesiophobia in Collegiate Athletes

Kyle Manetz, University of Virginia

Persistent Neurological Impairment is Not Present Six Months Following Unrestricted Return-To-Play From Concussion

Xavier Thompson, MS, ATC, University of Virginia

(GT)N Promotor Polymorphisms and Concussion Recovery: An Exploratory Study

Jane McDevitt, PhD, LAT, ATC, Temple University

Characteristics and Cost Savings of a Telehealth Consultation Service For Sport-Related Concussion

Shelli Herseth, MA, ATC, Barrow Neurological Institute

Test-Retest Reliability of the Brief Symptom Inventory-18 In United States Service Academy Cadets: Findings from the NCAA-DOD CARE Consortium

Haley Bookbinder, MEd, ATC, The Geneva Foundation - West Point Military Academy

Effect of Concussion History on Instrumented and Clinical Balance Performance

Jennifer Gaudet, LAT, ATC, Apache Junction High School

The Treatment of Sports-Related Concussion with Co-Morbid Whiplash: A Systematic Review

Rebecca Ramirez-Mckinley, DAT, LAT, ATC, Salve Regina University

Self-Reported Sports and Recreational Concussion History in Male Collegiate Gymnasts

Rebekah Gardiner AT, ACT, LMT, A.T. Still University

### **Concussion Recovery Outcomes**

Predicting Time to Symptom Resolution in Collegiate Athletes Diagnosed with Sport Concussion: A Cross-Validation Study

Jasmine Monge, University of Virginia

Relationship Between Symptom Score and Cognitive Test Performance Following Concussion in High School and Collegiate Athletes

Adam Lake, MED, ATC, CSCS, Cleveland Clinic

The Effects of Aerobic Exercise on Post-Concussion Symptoms in Patients with Persistent Symptoms

Timothy Kulpa, DAT, LAT, ATC, Temple University

Headache Impact Test-6 Scores Pre-to Post-Concussion In Service Academy Cadets

Steven Malvasi, LAT, ATC, Keller Army Community Hospital

### **Concussion Visual Assessment**

Effect of Administrative Variance on Near Point of Convergence in a Health, Active Population

Ian McGinnis, LAT, ATC, Temple University

Pre-Season Baseline and Post-Concussion Near Point of Convergence in High School and College

Student-Athletes: Findings From the Active Rehab Study

Anna Klotz, LAT, Froedtert Hospital Sports Medicine

The Effect of Sex, Sport Participation and Concussion History on Gaze Stabilization in Division I Collegiate Athletes

Carolina Quintana, MA, ATC, University of Kentucky

Accommodative Insufficiency in Pediatric And Adolescent Student-Athletes Following Sport-Related Concussion

Christina Vander Vegt, MS, ATC, University of North Carolina at Chapel Hill

Normative Values for Near Point of Convergence in High School Student Athletes

Anna Griffiths, MS, ATC, University of South Florida

Examining Near Point of Convergence in High School Athletes

Wes Sellars, MS, LAT, ATC, Premier Physical Therapy & Sports Performance

Comparison of King-Devick Test and Senaptec Sensory Station Scores at Preseason in High School and Collegiate Athletes

Emily Manfresca, MS, AT, Ohio University

The Relationship Between the Impact and Senaptec Neurocognitive Assessments

Lexus Blunt, MS, AT, Ohio University

Clinical Utility of The Senaptec Sensory Station, Impact and King-Devick as Concussion Assessment Tools

Michelle Spataro, Ohio University

Age Related Vestibular and Ocular Motor Symptom Outcomes Following Sport-Related Concussion

Christopher Tomczyk, MS, LAT, ATC, Michigan State University

Test-Retest Reliability of a Coincidence Anticipation Timing Assessment: Implications for Concussion Management

Kou Yang, University of North Carolina at Chapel Hill

The Effect of an Interval Fatigue Protocol on Vestibular/Ocular Motor Screening Performance

Jenna Ratka, MS, LAT, ATC, Temple University

### **Concussions In Female Athletes**

Comparing the Incidence of Head Impacts Sustained in Conference Versus Non-Conference Women's Soccer Games

Courtney Acors, University of Lynchburg

The Effect of Hormonal Contraceptives on Length of Recovery in Female Collegiate Athletes

Holly Carrington, University of Virginia

The Influence of Gender Differences on Neck Strength and Head Acceleration During Soccer Heading: A Systematic Review

Rebecca Carson, Saginaw Valley State University

Concussion Prevention Strategies: A Survey of Division I and Division II Female Soccer Teams

Kori Jeffries, MS, LAT, ATC, University of Nevada at Las Vegas

Return-To-Play Protocols Following Sport-Related Concussion in NCAA Gymnastics

Alison Horner, AT, ATC, Dignity Health

### **Cryotherapy And Thermal Modalities**

The Heating Rates of Intramuscular Tissue Using a Portable Ultrasound Unit: An Exploratory Study

Ke'La Porter, Western Carolina University

Effects of Ten-Sessions of Strengthening Exercise With or Without the Use of Cryo-Electrotherapy on Quadriceps Function in Individuals with Anterior Knee Pain: A Randomised Clinical Trial

Yuyeon Roh, Kyung Hee University

Temperature Effects of a Novel Iceless Cryotherapy/Thermotherapy Device in Humans

Mark Merrick, PhD, ATC, FNATA, Ohio State University

Synergistic Effects of Ice and TENS on Knee and Hip Neuromechanics During Painful Running

Sunku Kwon, MS, LAT, ATC, University of Utah

### **Education**

Differences in Spatial Ability and Mental Effort Among Health Professions Students

Saskia Richter, PhD, ATC, A.T Still University

Accuracy of Athletic Training Student Performance Factors for Determining BOC Exam First-Time Pass Outcomes

Zachary Hobson, BS, ATC,

Athletic Trainers' Selection Behaviors Related to Multi-Session Continuing Education Conferences

Adam Babiarz, DAT, LAT, ATC, Indiana State University

Cultural Competence of Athletic Training Educators

Destinee Grove, LAT, ATC, Temple University

The Prevalence of Vocal Cord Dysfunction Education in Athletic Training Curriculum  
Leslie Rippon, MS, ATC, Seton Hall University

Debrief Improves Athletic Training Students' Confidence After Multi-Station Objective Structured Clinical Examination  
Jamie Frye, PhD, LAT, ATC, James Madison University

### **Education and Research**

Examining Historical Research Trends within The Journal Of Athletic Training Using Text Mining  
James Farnsworth II, PhD, AT, Texas State University

Differences Among Post-Professional Athletic Training Students' Knowledge and Confidence of Evidence-Based Practice  
Rachel Reimann, A.T. Still University

A Comparison of Post-Professional Athletic Training Students' Accessibility to Resources and Perceived Challenges of Implementing Concepts of Evidence-Based Practice in Clinical Practice  
Brittany Iaiennaro, ATC, A.T. Still University

Post-Professional Athletic Training Students' Attitudes and Beliefs Regarding Evidence-Based Practice  
Te Shondra Abner, MA, ATC, A.T. Still University

The Role of Curricular Content and Influential Factors on the Interest of Professional Post-Baccalaureate Athletic Training Students' in a Doctor of Athletic Training Degree  
Emma Hoffman, Old Dominion University

### **Epidemiology and Injury Risk**

Gender-Specific Differences in Upper Quarter Closed Kinetic Chain Performance After Return To Play in Overhead Athletes  
Youngwook Kim, MA, ATC, Utah State University

Functional Movement Pattern Proficiency is Similar Across Stroke Type Dominance in Collegiate Swimmers  
Jessica Pokryfke, Nova Southeastern University

Epidemiology of Sport-Related Knee Injuries Reporting to U.S. Emergency Departments From 2008-2017.  
Erica Thornton, MS, LAT, ATC, A.T. Still University

The Effect of Previous Medical History on Student-Athlete Quality of Life  
Rachael Watkins, University of Lynchburg

Quantifying External Load Among Collegiate Men's Lacrosse Players: Implications for Position Specific Injury Risk  
Bridget Sullivan, High Point University

External Loads In Collegiate Women's Lacrosse Players Differ Throughout a Season and Between Event Types: Implications for Increased Injury Risk

Anna Myers,

Rib Stress Injuries Among Female NCAA Collegiate Rowers: A Prospective Epidemiological Pilot Study

Kate Madison, MS, LAT, ATC, Seattle Children's Hospital

### **Factors Influencing Biomechanics During Functional Tasks**

Athletic Surface Type Does Not Affect Landing Error Scoring System Scores

Emily Burbulys, California State University at Fresno

Validity of a Real-Time Clinical Checklist to Assess Jump-Landing Biomechanics of the Single Leg Hop for Distance

Annabelle Herron, MS, AT, Ohio University

The Relationship Between Knee Joint Biomechanics and Single Leg Hop Performance in High School Athletes

Kyle Thompson, MS, AT, Ohio University

The Influence of Fatigue on Sauté Jump Kinematics and Kinetics in Dancers

Erick Tuesta, ATC, California State University at Northridge

Influence of Anticipation and Dual-Tasking on Cutting Biomechanics in Healthy Males

Grant Norte, PhD, AT, ATC, University of Toledo

Does Restricting Anterior Movement of the Knees During a Barbell Back Squat Alter Lower Extremity Biomechanics?

Lucy Koshewa, MS, CSCS, University of Wisconsin at Milwaukee

Relationship Between Mechanics on Single Limb Stepdown and During Running Gait

Cassidy Schreiber, LAT, ATC, Montana State University

The Effects of a Fatiguing Run on Dynamic Balance

Jessica Tom, LAT, ATC, University of Nevada at Las Vegas

Relationship Between Functional Hop Performance and ACL-Injury Related Knee Biomechanics in the Sagittal Plane During a Single-Leg Jump Cut

Colin Mulligan, MA, ATC, Oregon State University

Acute and Delayed Effects of Fatigue on Biomechanical Risk Factors for ACL Injury

Darin Padua, PhD, ATC, University of North Carolina at Chapel Hill

Different Quadriceps Strength Characteristics Predict Sagittal Plane Movement During Activities of Daily Living and Sport Specific Movements.

Caroline Lisee, MEd, ATC, Michigan State University

Factors Contributing to Lower Limb Asymmetry in Healthy Adults Performing Unilateral Hopping Tests

Raya Booth, MS, ATC, Georgia Tech

### **Foot and Ankle Pathology Interventions**

A Novel Technique for Improving Tibial Internal Rotation Range of Motion

Justin Stanek, EdD, ATC, Illinois State University

Validity of a Novel Cross-Line Laser for Predicting Lateral Plantar Pressure in Individuals with Chronic Ankle Instability

Danielle Torp, MS, ATC, University of North Carolina at Charlotte

Normative Data on Ankle Dorsiflexion Range of Motion Measured Using the Weight-Bearing Lunge Test

Rick Loutsch, DAT, ATC, Northwestern College

The Effect of the Figure-Eight on Sagittal Plane ROM During Prophylactic Ankle Taping of NCAA Division I Athletes

Adam Hollien, Southern Utah University

Ankle Bracing as a Mediator of the Influence of Attentional Foci on Landing Mechanics in Healthy Females

Mackenzie Haines, MS, ATC, University of Toledo

Individuals with Plantar Heel Pain Demonstrate Altered Foot Posture, Plantar Fascia Thickness and Plantar Cutaneous Sensation

Kathleen Hogan, ATC, LAT, Old Dominion University

Optimal Therapeutic Interventions Administered by Athletic Trainers in the Management of Pain and Function From Plantar Fasciitis: A Systematic Review

Bailey Liedel, Saginaw Valley State University

Plantar Pressure Analysis in Walking Orthoses After 1st Metatarsophalangeal Joint Arthrodesis

Dana Johnson, MEd, ATC, University of Virginia

Opioid and Non-Opioid Prescribing Rates for Ankle Sprains in Emergency Departments Across the United States Between 2006 And 2015

Kyle Kosik, PhD, ATC, University of Kentucky

### **Functional Movement Screening and Whole Body Assessment Technique**

Movement Strategies Change Y Balance Test Performance Variability

Yo-Rong Chen, LAT, ATC, Texas Tech University Health Sciences Center

Video Analysis of the Injury Mechanism of Athletes at the 2017 Muju World Taekwondo Championship

Jeong HS, Yonsei University

A Comparison of Balance, Postural Sway, Jump-Landing Mechanics, Reaction Time and Visual Motor Processing Speed in NCAA Division II Athletes With and Without History of Concussion

Haley Anderson, MS, LAT, ATC, Sparta High School

Risk Classification of Army Reserve Officer Training Corps Cadets Based on FMS and Y-Balance Performance Testing

Jennifer Earl-Boehm, PhD, ATC, FNATA, University of Wisconsin at Milwaukee

Functional Movement Screen Improvement Over a 3 Month Period in Army Reserve Officer Training Corps

Samantha Atkielski, University of Wisconsin at Milwaukee

Examining the Functional Movement Screen and Y Balance Test Scores in a Cohort of Intercollegiate Athletes Before and After a Training Intervention

Jenna Liljeberg, MS, CSCS, University of Delaware

Whole-Body Reactive Agility Asymmetries Among Athletes with Concussion History are Modifiable

Gary Wilkerson, EdD, ATC, FNATA, University of Tennessee at Chattanooga

### **Gen Med Case Studies**

Arteriovenous Malformation in a Collegiate Athlete: A Case Study

Kristen Moore, Gannon University

Diagnosis and Treatment of Idiopathic Benign Paroxysmal Positional Vertigo in Collegiate Dancers

Koreen Boydston, University of Idaho

Nerve Hydrodissection Treatment for Chronic Exertional Abdominal Cutaneous Nerve Entrapment Syndrome: A Level 3 CASE Study

Cody Wimpee, University of Texas at Arlington

Blunt Trauma to the Colon in a Football Player– A Level 4 Case Study

Robert Casmus, MS, LAT, ATC, Novant Health, Forsyth Medical Center

Ibuprofen Induced Intestinal Bleeding Presenting as Crohn's in a Collegiate Baseball Player: A Case Report

Brandon Warner, MEd, LAT, ATC, University of Texas at Tyler

Complex Regional Pain Syndrome in a Middle School Female Field Hockey Player

Mallory Winkler, LAT, ATC, Baylor Scott & White Texas Spine & Joint Hospital-Azalea Orthopedics

Repair of a Testicular Fracture in a Collegiate Baseball Player: A Case Study

Amelia Martin, Liberty University

Dystonia Diagnosis in Horseback Riding Patient

Leeza Jimenez, Florida International University

Grade 4 Kidney Laceration in a High School Football Player

Trayvon Simmons, Western Carolina University

Exertional Syncope of an Unknown Origin in a Collegiate Women's Basketball Player: A Level 4 Rare Events Case Study

Shelly Fetchen Dicesaro, PhD, LAT, ATC, California University of Pennsylvania

Idiopathic Chest Pain in Division I Collegiate Track and Field Athlete: A Case Study  
Alyson Grimshaw, LAT, ATC, University of Central Florida

Psychogenic Nonepileptic Seizures in a Collegiate Diver: A Case Study  
Nicole Skuraton, Ithaca College

Idiopathic Gastroparesis in a Female Collegiate Swimmer  
Sara Nestrowitz, Marist College

Recurrent Dizziness and Fainting in a Female Collegiate Rower: A Case Report  
Kyle Bahr, LAT, ATC, University of Central Florida

DVT in D1 Collegiate Rower  
Eric Linnell, MS, LAT, ATC, University of Wisconsin at Madison

Spontaneous and Atypical Rhabdomyolysis in a Collegiate Tennis Athlete  
Jaime Fulcher, DAT, LAT, ATC, Indiana Wesleyan University

Exertional Rhabdomyolysis in an International Student Athlete  
Jordan Carmosino, MS, LAT, ATC, Case Western Reserve University

Differences in Return-to-Play Between Two American Collegiate Football Players Diagnosed with Exertional Rhabdomyolysis: A Level 4 CASE Series  
Daniel Bareis, ATC, LAT, CSCS, University of Nevada at Las Vegas

Paget-Schroetter Syndrome and Complications in a Division 1 Men's Lacrosse Athlete  
Justin Unislawski, Marist College

### **Hamstrings And Quadriceps**

Relationships Between Quadriceps Thickness and Knee Extension Rate of Torque Development  
Eun Wook Chang, PhD, ATC, Inha University

The Effects of Soft Tissue Flossing on Hamstring Flexibility and Lower Extremity Power  
Zachary Maust, University of Lynchburg

Lower Extremity Injury Following a Hamstring Strain in Division 1 Collegiate Football Athletes  
Jennifer Sanfilippo, MS, LAT, University of Wisconsin at Madison

Patients with Unilateral Anterior Knee Pain Present Bilateral Deficits in Quadriceps Neuromuscular Function and Hip Joint Flexibility: A Cross-Sectional Study  
Sungwan Kim, Kyung Hee University

Hamstring Syndrome in Collegiate Track Athlete  
Spencer Daddario, Youngstown State University

Quantitative Comparison of Individual Lower Limb Muscle Volumes Between Soccer and Basketball Players  
Xue Feng, PhD, University of Virginia



### **Hydration in Various Settings**

Fluid Replacement Behaviors of Active Firefighters

Whitney Graves, DAT, LAT, ATC, East Alabama Orthopaedics & Sports Medicine

Hydration Status and Perception of Fluid Loss in Male and Female University Rugby Union Players

Trev Muth, MS, LAT, ATC, Midland University

Perceived Gastrointestinal Distress Symptoms Among University Marching Band Musicians

Nancy Uriegas, LAT, SCAT, ATC, University of South Carolina

Hydration Status, Fluid Intake and Thirst Among University Marching Band Musicians

Susan Yeargin, PhD, ATC, University of South Carolina

Gastrointestinal Distress, Core Temperature and Hydration Among Marathon Runners Using and Not Using Nsaids

Melani Kelly, MS, LAT, ATC, University of Kansas

A Comparison of Sweat Rate and Sweat Sodium Concentrations Between the First and Second Hours of Running While Using Two Different Hydration Strategies

Danielle Hunt, LAT, ATC, West Chester University

A Comparison of the Sex Differences in the Physiological Effects of Drinking to Thirst Versus Drinking to a Generic Schedule During 2 Hours of Running in Thermoneutral Conditions

Michelle Stehman, LAT, ATC, The HEAT Institute at West Chester University

### **Low Back Pain Assessment and Rehabilitation**

Muscle Activation of The Lumbo-Pelvic-Hip Complex During Incline Walking

Erika Zambarano, MS, AT, ATC, University of Toledo

Effectiveness of an Exercise Program on Range of Motion, Strength and Lumbopelvic Stability in Division I Collegiate Baseball Players

Shannon Meggs, PT, DPT, ATC, University of Southern California

Using Myokines<sup>TM</sup> System in Treatment of Low-Back Pain

Matthew Klein, Florida International University

Spondylolisthesis in a Field Hockey Player

Kelly Lumpkin, PhD, LAT, ATC, Liberty University

Pain Education with Therapeutic Exercise in Chronic Non-Specific Low Back Pain Rehabilitation

Evelyn Tocco, A.T. Still University

Muscle Activity Differences of the Lumbar Multifidus During Rehabilitation Exercises in Patients With and Without Non-Specific Low Back Pain

Kyle Morris, MEd, ATC, University of Virginia

Transverse Abdominis and Lumbar Multifidus Activity in Individuals With and Without Low Back Pain During Walking

Kaitlyn Hill, MEd, ATC, University of Virginia

Comparison of Core Muscle Activity In Patients with Non-Specific Low Back Pain, Patellofemoral Pain and Healthy Individuals in Static and Dynamic Positions

L. Colby Mangum, PhD, ATC, University of Central Florida

### **Lower Extremity Case Studies**

The Role of Athletic Identity in the Etiology of Medial Tibial Stress Syndrome in Collegiate Runners

Leah Reeder, LAT, ATC, Texas State University

The Comparison of Sports-Related Stress Fractures Among Collegiate and High School Athletes

Christy Collins, PhD, Datalys Center For Sports Injury Research and Prevention

An Unusual Mechanism of Injury for Compartment Syndrome in a Collegiate Softball Player

Troy Siler, Idaho State University

Effectiveness of Surgical Repair Techniques for Ankle Dislocation with Weber B Fibular Fracture and Associated Complete Deltoid Ligament Rupture in a Collegiate Football Athlete

Emily Sagstetter, Purdue University

Spontaneous Hip Dislocations in a High School Basketball Player

Laurie Blunk, MS, LAT, University of Kentucky

Platelet-Rich Plasma Injection in a Second-Degree Strain of the Peroneus Longus

Heather Deal, Liberty University

Ankle Reconstruction and Microfracture Chondroplasty in a Basketball Player

Kelly Lumpkin, PhD, LAT, ATC, Liberty University

Hip Complications Post-Multiple Surgeries in a College Football Athlete

Sawyer Swanson, Florida Gulf Coast University

Foot Pain in a High School Girls' Basketball Player

David Jacobs, MA LAT ATC, University of Kentucky

Morel-Lavallee Lesion at the Knee in a 19-Year Old Collegiate Football Athlete

Thomas Hoskins, King's College

A Salter-Harris Type II Fracture of the Distal Femoral Epiphysis in an Adolescent Athlete: A Case Study

Katherine Helly, LAT, ATC, University of Kentucky

Bilateral Tibial Tubercle Distalization in a College Student with Recurrent Patellar Dislocations Due to Patella Alta

Matthew Parke, Purdue University

Chondral Defect of the Patella: Osteochondral Allograft Transplantation with Stem Cell Implantation in a Collegiate Female Basketball Player

Madison Johnston, University of Nebraska at Omaha

Anterior Cruciate Ligament Rupture During Syndesmotic Ankle Sprain Return to Play in a Female Soccer Athlete: A Case Study

Paige Clawson, LAT, ATC, University of Kentucky

Pseudogout in a 19-Year Old Division I Collegiate Female Soccer Player

Kathryn Calpino, PT, DPT, SCS, Salem State University

Proximal Tibial Plateau Salter-Harris Fracture That Undercuts the Tibial Tuberosity in a Male High School Track Athlete

Colin Cottrell, Capital University

Knee Injury in a High School Football Player

Sarah Williams MS, ATC, LAT, University of Kentucky Orthopaedic Surgery and Sports Medicine

Dislocation of Right Knee with ACL and PCL Avulsion, MCL Tear, Menisci Tears and Tibial Plateau Fracture in a Collegiate Football Athlete

Josh Sanders, Florida International University

Lateral Meniscus Transplant and Osteochondral Allograft Transplant in an Olympic Ski Racer

James Volz, MS, ATC, LAT, Steadman Clinic

### **Lower Extremity Injury Risk**

Improvements in Perceived Self-Efficacy Toward Injury Prevention Program Participation Following a Multi-Factorial Intervention Based on the Health Belief Model: A Pilot Study

Emily Gabriel, PhD, ATC, Mercer University

Exposure to Movement Challenges is Not Adequate to Ensure the Development of High-Quality Movement Patterns

Karen Peck, Med, ATC, CCRP, Keller Army Community Hospital

Ankle Sprain Prevention in Football Players Using Hip Strengthening and Balance Training: A Numbers Needed to Treat Analysis

Phillip Gribble, PhD, ATC, FNATA, University of Kentucky

Exploring the Relationship Between Weight-Bearing Dorsiflexion and Lower Extremity Injury Rates in Collegiate Football Athletes: A Clinical Case Series

Jennifer Gordon, Ithaca College

Exploring the Effects of Limb Dominance and Injury History on Weight-Bearing Dorsiflexion Asymmetry: A Clinical Case Series

Katelyn Dolan, Ithaca College

Relationship Between Dorsiflexion Asymmetries and Lower Extremity Injuries in Collegiate Women's Lacrosse Players: A Clinical CASE Series

Janie Kleinberg, Ithaca College

## **Movement And Outcomes After ACL**

Influence of Graft Type On Lower Extremity Functional Test Performance After Anterior Cruciate Ligament Reconstruction

Megan Houston, PhD, ATC, Keller Army Hospital

Synthetic Model Knee and Lachman Test Accuracy: The Role Years of Experience, Profession and Given Integrity Fulfill

Megan Brady, EdD, LAT, ATC, Drake University

Major Alterations to Quadriceps Neuromechanical Properties After ACLR: Potential Insight to Long-Term Functional Deficits

Steven Davi, MS, ATC, University of Connecticut

Quadriceps Strength is Greater in Individuals with Greater Single Limb Squat Depth at Time of Return-to-Sport Following ACL Reconstruction

Emma Hoffman, MSAT, LAT, ATC, Texas Health Sports Medicine

Effects of Anterior Cruciate Ligament Reconstruction on Patellofemoral Joint Stress and Lower Extremity Biomechanics at 12 Weeks Post-Surgery and at Time of Return-to-Sport in Adolescent Females

Shiho Goto, PhD, ATC, Texas Health Sports Medicine

Sensory Reweighting in ACL Reconstructed Patients: Analysis of a Single Leg Triple Jump Proprioceptive Task

Dustin Grooms, PhD, ATC, CSCS, Ohio University

Kinematic and Kinetic Differences During the Y Balance Test™ in ACL Reconstructed Individuals

Meredith Decker, MS, ATC, LAT, University of Texas at Arlington

Can Lower Extremity Assessment Protocol Be More Efficient to Detect Deficits After Anterior Cruciate Ligament Reconstruction?

Hyung-Gyu Jeon, PES, Dong-A University

Comparison of Drop Jumping in Individuals Following ACL Reconstruction with Quadriceps Tendon and Patellar Tendon Autografts

Jennifer Hunnicutt, PhD, ATC, Emory University

Demographic and Surgical Factors Influence Readiness for Sport During the First 2 Years After ACL Reconstruction.

Christopher Kuenze, PhD, ATC, Michigan State University

Quadriceps Strength and Plyometric Characteristics Predict Hop Performance After ACL Reconstruction

Thomas Birchmeier, MS, ATC, Michigan State University

Joint Position Sense in ACL Reconstructed Patients Across Open and Closed Chain Tasks

Sarah Hall, MEd, ATC, University of Virginia

Jump Landing Time to Stabilization After Return-to-Sport Following ACL Reconstruction

Reece Hayes, MS, AT, Ohio University

Relationship Between Hamstrings Strength Indices and Self-Reported Knee Function After ACL Reconstruction

David Sherman, PT, DPT, AT, University of Toledo

Neural Activity Differences for Combined Hip-Knee Motor Control in ACL Reconstructed Individuals

Cody Criss, Ohio University

### **Muscle Recovery**

Post-Exercise Cooling Modified Muscle Performance and Soreness Perception

Jeffrey Doeringer, PhD, LAT, ATC, Nova Southeastern University

Muscle Soreness From Eccentric Exercise Does Not Modify Neural Excitability

Alan Needle, PhD, ATC, CSCS, Appalachian State University

Is the Lack of Finger Flexor Strength an Indicator of A2 Or A4 Pulley Injury in Rock Climbers?

Xeber Iruretagoiena-Urbieta, PT, MSc, Boston University

The Use of Blood Flow Restriction Treatment on a Patient with Weakness of the Vastus Medialis Oblique: A Clinical Case Study

Daniella Eiroa, MS, LAT, ATC, Florida International University

The Impact of a Post-Practice Recovery Lab in the Availability Rate of a Professional Soccer Club

Gabriella Korte, University of Evansville

### **Non-Acute Upper Extremity Case Studies**

Radiocapitellar Plica Syndrome: Non-Operative Treatment in an Adolescent Artistic Gymnast

Sharon Frank, MS, ATC, LAT, Cincinnati Children's Hospital Medical Center

Radiocapitellar Osteoarthritis in an Adolescent Following a Radial Neck Fracture

Allison Montgomery, MEd, ATC, The Steadman Clinic and Steadman Philippon Research Institute

Musculocutaneous Nerve Injury in a Collegiate Baseball Pitcher

Ashlyne Vineyard, MAT, LAT, ATC, Baylor University

How Can the Absence of the Pectoralis Major Muscle Affect Pitching Biomechanics?

Travis Kirk, Florida Gulf Coast University

Thumb Pain in a Division I Collegiate Football Student Athlete: A Case Report

Kristen Matthis, LAT, ATC, University of Central Florida

### **Quality of Life and General Health**

The Influence of Sleep and Heart Rate Variability on the Occurrence of Injuries, Illnesses and Missed Participation Days in NCAA Collegiate Swimmers

Bruin Armwald, MS, LAT, ATC, Penn State University

Lower Extremity Injury and Health Related Quality of Life in Both Current and Former Track and Field Athletes

Kimberly Penilla, MS, ATC, Select Medical Physical Therapy, Disneyland Resort

A Comparison of Physical Literacy and Landing Strategies Between Low-Resourced and High-Resourced Communities

Emma Zuk, ATC, University of Connecticut

Generalized Joint Hypermobility and Quality of Life

David Marchetti, DAT, LAT, ATC, Temple University

Current Evidence in Mental Health: Medication Use in Neurocognitive Performance

Jamie Derollo, DAT, ATC, Temple University

Effects of Aquatic Therapy on Functionality [Gait & Balance] and Quality of Life Among Patients with Parkinson's Disease: A Systematic Review

Jordyn Troy, Saginaw Valley State University

Outcome Measures for Rural Healthcare Clinics, Primary Care Providers or Clinics and Hospitals Associated with an Accountable Care Organization

Michelle Aiken, DAT, LAT, ATC, Temple University

Athletic Trainers' Familiarity and Assessment of Patient Barriers to Rehabilitation Adherence

Kelsey Picha, PhD, ATC, A.T. Still University

Examination of Self-Reported Physical Activity Levels in Individuals With and Without a History of Lower Extremity Injury

Blaine Birtzer, LAT, ATC, Indiana State University

Examination of Hormonal Contraceptive Use and Mental Health Risks in Female Student-Athletes

Samantha Weber, MSED, SCAT, ATC, University of South Carolina

NASA Task Load Index – Measuring Patient Experience with Novel Exercise

Katherine Newsham, PhD, ATC, Saint Louis University

### **Reliability and Diagnostic Accuracy-"How Reliable is it?"**

Intra and Inter-Rater Reliability of Two New Single Leg Sit to Stand Tests

Andy Waldhelm, PT, PhD, LAT, University of South Alabama

Inter-Session Reliability and Responsiveness of Weight-Bearing Dorsiflexion Asymmetries

Natalie Sharpe, Ithaca College

Reliability and Responsiveness of the Star Excursion Balance Test

Cole Rinehart, Ithaca College

The Diagnostic Accuracy of Residency Trained Athletic Trainers for Shoulder and Knee Pathologies

Forrest Pecha, MS, LAT, ATC, St Luke's Sports Medicine

The Intra-Rater Reliability of a Battery of Closed Chain Physical Performance Measures for the Upper Extremity

Daniel Marant, LAT, ATC, CSCS, University of Kentucky

Test-Retest Reliability of a Digital Version of the Foot and Ankle Ability Measure

Christopher Burcal, PhD LAT ATC, University of Nebraska at Omaha

Reliability of a Clinical Assessment Tool for Measuring Scapular Mobility

Oliver Silverson, ATC, University of Kentucky

Reliability of the Hruska Adduction Lift Test

Michael Stant, MS, ATC, CSCS, University of Delaware

The Inter-Rater Reliability of a Battery of Open Kinetic Chain Upper Extremity Physical Performance Measures

Cade Coulter, LAT, ATC, University of Kentucky

Within- and Between-Day Reliability of Corticomotor Excitability Assessment Techniques in the Upper Extremity: A Reliability Study

Katsumi Takeno, MS, ATC, CSCS, University of Toledo

### **Social Media And Telemedicine**

Athletic Trainers' and Orthopedic Physicians' Experiences with Telemedicine in Musculoskeletal-Based Patient Encounters

Zachary Winkelmann, MS, LAT, ATC, Indiana State Univeristy

Accuracy and Best Design Practices of Pinterest Bleeding Control Infographics: A Content Analysis

Jessica Walz, Saginaw Valley State University

Athletic Trainers' Social Media Use for Professional Advocacy

Shannon Hamilton, DAT, LAT, ATC, Indiana State University

### **Student Exchange Poster Presentations**

#### **AT Practice**

Perceptions of Athletic Trainers: A Retrospective Analysis

Calen Sutton, Seton Hall University

Athletic Trainers' Use of General and Regional Patient Reported Outcome Measures in Patient Care Decisions

Elizabeth Alaimo, Seton Hall University

Filling the Gaps in Adolescent Care and School Health Policy-Tackling Health Disparities Through Sports Medicine Integration (Level 3 Case Study)

Kemba Noel-London, MAT,ATC,CES, Saint Louis University

### **Exercise and Cardiovascular**

The Relationship of Injury and Cardiorespiratory Fitness in Firefighters and Effective Cardiopulmonary Resuscitation

Shelby Conard, MS, ATC, CKTP, University of Minnesota at Crookston

The Effectiveness of Real-Time Coaching Cues on the Ability to Improve Running Mechanics

Mackenzie Livermore, Seton Hall University

Biomarkers Relating to Bone Loss Increase with Training in Division 1 Cross Country Runners

Noah Erb, Weber State University

Comparison of Percent Body Fat Estimated by Ultrasound, Bioelectrical Impedance Analysis, Skinfold and Underwater Weighing Methods in High School Athletes: Preliminary Results

Haley Chizuk, University of Hawaii & Prime

A 10-Min Warm-Up Exercises at Intermittent or Continuous Intensity on 20-M Sprint and Maximal Vertical Jump

Yujin Jo, Kyung Hee University

The Effects of Summer Training Programs on Army ROTC Cadets' Aerobic Capacity

Brandon Lee, University of Nevada

ECG Screening Differences in African American Athletes

Chrishaun Morgan, Radford University

### **Head and Psychosocial**

The Effect of Comfort on an Athlete's Desire to Wear Protective Skull Caps

Bailey Feelings, MS, AT, NREMT, Adrian College

The Effects of the 2nd Skull® Skull Cap on the Protective Properties of Ice Hockey Helmets

Jacob Adams, MS, AT, NREMT, Adrian College

A Descriptive Study of Men's Lacrosse Head Impacts Based on Field Positioning

Theshay Prince, University of Lynchburg

Description of Neuropsychological Performance of Hawaii Student-Athletes with Suspected Concussion

Emma Connelly, University of Hawaii at Manoa

Impact Frequency and Magnitude as a Risk Factor for Head Injuries in College Football Players

Levi Roberts, Marshall University

Linear Impact Magnitudes Across Division III American Football Players

Caitlin Gale, Marshall University

Cognitive Effects of Varying Types of Distractions on Athletic Performance and Their Associations with Cognitive Abilities

Patrick Fischer, Montana State University



Best Practice Recommendations for Return-to-Learn in Student-Athletes After Diagnosis of Concussion:  
A Critically Appraised Topic  
Lakeesha Busher, Chapman University

Motivational Interviewing in Athletic Populations  
Emily Crisler, Grand Canyon University

Pilot Study: Validation and Reliability of a Tool Used to Determine Athletic Trainers' Perceived  
Knowledge of Psychosocial Concepts in Clinical Practice  
Alexa Petriella, Seton Hall University

Assessment of Performance Anxiety in Stage Actors  
Jacklyn Bascomb, ATC, Marshall University

Stress, Social Support and Quality of Life in Athletic Training Students  
Jordawn Jones, ATC, MS, Northern Kentucky University

The Influence of Fear Avoidance on Acute Concussion Symptoms: A Case Series  
Gabrielle Gamelin, BSc, CAT(C), Concordia University

### **Interventions**

Comparison of a Bag of Crushed Ice and a Double-Length Frozen Elastic Bandage on Skin Temperature  
Guillermo Arbeloa, Weber State University

The Effects of HOTSHOT, on Exercise Associated Muscle Cramps in Physically Active Football Players  
Sara Ellefson, Weber State University

The Effectiveness of Dry Needling on Pain in Individuals with Myofascial Pain Syndrome  
Nancy Sun, Purdue University

The Effects of Stationary Dry Cupping on Quadriceps' Function Immediately Following and 24-Hours  
After a Fatigue Protocol  
Jessica Vlisides-Henry, Weber State University

The Effects of Peristaltic Pulsed Pneumatic Compression on DOMS Recovery in Active Individuals  
Courtney Miller, Weber State University

### **Lower Extremity**

Multi-Directional Hopping Asymmetries in Individuals with a History of Anterior Cruciate Ligament  
Reconstruction  
Matt Scherer, MS, ATC, CSCS, Adrian College

Influence of Static Stretching, Dynamic Stretching and a Moist Heat Pack on Flexibility and Performance  
Measures in Young Healthy People with Limited Flexibility of the Triceps Surae  
Boyoung Park, Missouri State University

The Effect of Kinesio-Tape On Gastrocnemius Muscle Tension Force: Evaluated By C-Stretch®

Kei Yoshida, Ritsumeikan University

Arthritis in a Male Football Player  
Frank Vazquez, Florida Gulf Coast University

The Acute and Residual Effects of IASTM and Roller Massage Stick on Hamstring Passive Range of Motion  
Annie Young, Weber State University

The Effect of Ankle Taping Techniques on Lower Extremity Kinematics  
Karly Gifford, Weber State University

Backward Ambulation Increases Proprioception at the Knee: A Critically Appraised Topic  
Jacqueline Holmes, Westfield State University

ACL Tear, MCL Sprain and Posterolateral Capsule Tear in College Football Athlete  
Austin Wentworth, Florida Gulf Coast University

The Use of Class IV LASER in Treatment of Post-Surgical Infection From a Total Knee Arthroplasty of a 64 Year-Old Female  
Jeremy Howard, MS, LAT, ATC, University of Saint Augustine

Patellar Tendon Rupture in a Collegiate Football Player  
Mackenzie Peed, Moravian College

Bilateral Accessory Navicular Syndrome (Type II) in a Female Collegiate Soccer Athletes  
Taylor Allbritton, LAT, Stephen F. Austin State University

Herniation of the Tibialis Anterior  
Raymond Peters, Youngstown State University

Proximal Adductor Avulsion in a College Football Player  
William Jantzen Merriman, MS, ATC, University of Kentucky Orthopaedics Surgery and Sports Medicine

Fulkerson Osteotomy and Lateral Release for Patellar Maltracking in a Collegiate Student  
Taylor Novak, Purdue University

### **Upper Extremity**

Trunk and Trapezius Muscle Activity When Taping an Ankle at Two Different Table Heights  
Emily Appold, University of Arkansas

Relationship Between Pitch Count and Adaptations to the Pitching Arm in Novice and Advanced Female Interscholastic Fast-Pitch Softball Pitchers  
Laura Girgash, Ashland University

Fracture and Recurrent Subluxation Injury of the Second Digit in a Collegiate Softball Player  
Priya Mehrish, Moravian College

Infraspinatus Muscular Atrophy Due to Suprascapular Nerve Entrapment in a Division I Volleyball Player

Christopher Wilkins, Youngstown State University