

Category A Session: 1 hour

Introduction to diagnostic and interventional sports ultrasound

Cameron Straughn, DO

Course Description

Learning Objectives

1. Understand the indications and limitations of ultrasound as an imaging modality
2. Appreciate the basic principles/physics of ultrasound
3. Describe the normal and pathologic sonographic appearance of tendon, ligament, muscle, fascia, fat, bone, nerve, vessels, and cartilage
4. Discuss indications for ultrasound guidance in sports medicine procedures
5. Demonstrate appropriate procedural set-up

Speaker Biography

Primary Care Sports Medicine Fellow – University of Kentucky

Graduated Edward Via College of Osteopathic Medicine 2015, Residency at Floyd Family Medicine in Rome, GA, graduated 2018. Specific interest in Musculoskeletal US and procedural sports medicine.

EBP Session: 2 hours

The Role of the Scapula in Function and Dysfunction

Aaron Sciascia, PhD, ATC, PES

Course Description

Over the past 5 years, the literature has been consistent noting that dyskinesia by itself is not an injury or a musculoskeletal diagnosis. However, in most cases, scapular dyskinesia should be viewed as a physical impairment similar to patellar tracking alterations seen in the knee. This characterization has been supported by recent literature that has identified increases in shoulder function when specific scapular muscles are working optimally but not hyperactively. Furthermore, classic descriptions of how the aforementioned scapular kinematics occur have been found to be incorrect and this misinformation is taught in athletic training curriculum programs through various textbooks.

Function and dysfunction of the scapula must be fully understood by clinicians because approaching scapular dyskinesia with inaccurate knowledge about muscle function and seeing the dysfunction as a pathological entity rather than a physical impairment can misguide treatment protocols and lead to less than optimal rehabilitation outcomes. As such, scapular dyskinesia and the clinical examination designed to detect the dysfunction needs to be clarified for the participants of this session. Evidence derived from 2 peer-reviewed consensus papers which has disseminated the evidence as well as information contained within Disorders of the Scapula will be utilized to accomplish this purpose.

Learning Objectives

1. To recall active muscles in normal functional scapular motion as well as to differentiate between overactive and underactive muscles in dysfunctional scapular motion
2. To define scapular dyskinesia
3. To recognize specific clinical maneuvers designed to identify scapular dysfunction

Speaker Biography

Aaron Sciascia, PhD, ATC, PES

Eastern Kentucky University, Richmond, KY

Aaron is an assistant professor at Eastern Kentucky University (EKU) for the CAATE-accredited athletic training education program. Prior to arriving at EKU, Aaron spent 13 years as the coordinator of the Shoulder Center of Kentucky. He also serves as adjunct faculty for Moravian College's MSAT and DAT programs in Bethlehem, PA. He received a Bachelor of Science in Athletic Training degree from the University of Delaware and a Master of Science in Kinesiology degree from the University of Kentucky. Aaron holds a graduate certificate in Clinical and Translational Science and has earned a Doctor of Philosophy in Rehabilitation Science, both from the University of Kentucky. He has been previously honored as Clinical Athletic Trainer of the Year and with the Award of Merit from the Kentucky Athletic Trainers' Society and the Founders' Award from the American Society of Shoulder and Elbow Therapists (ASSET). Aaron has previously served ASSET as Communication Chair, Member-at-Large, Secretary/Treasurer, President, and is currently serving as Past-President. He was recently elected as an Affiliate Member of the American Shoulder and Surgeons. Aaron has produced multiple peer-reviewed articles and book chapters related to function, evaluation, and treatment of the shoulder and

speaks at various venues annually. He recently co-edited 2 textbooks is also serving as an associate editor for the International Journal of Athletic Therapy and Training.

Category A Session: 1 hour
Cartilage Injuries in Athletes
Austin V. Stone, MD, PhD

Course Description

This session is designed to help identify cartilage injuries and symptoms in athletes, understand the referral pattern and potential management options, and rehabilitate the patient.

Learning Objectives

1. Identify cartilage injuries and symptoms in athletes
2. Understand the referral pattern and potential management options
3. Recommend ways to rehabilitate the patient

Speaker Biography

Austin V. Stone, MD, PhD, a knee and shoulder specialist, earned his medical degree from the University of Cincinnati College of Medicine. He completed his residency in orthopedic surgery at Wake Forest School of Medicine in Winston-Salem, North Carolina, and a fellowship in sports medicine at the Rush University School of Medicine in Chicago. During his residency, he earned his PhD in molecular medicine and translational sciences with a focus on meniscal injury and osteoarthritis.

Dr. Stone's goals are treating musculoskeletal injuries and disease to restore an active lifestyle. He has a significant background and training in advanced orthobiologics for treatment of sports injuries and early arthritic disease. Dr. Stone has conducted extensive research on the early mechanisms of cartilage and meniscus injury that lead to osteoarthritis. His additional research interests include orthopedic clinical outcomes, overhead athlete injuries and cycling injury and performance.

Category A Session: 1 hour

Injury and performance at the tip of the spear, lessons from United States Special Operations

Nick Heebner, PhD, ATC

Course Description

This session will discuss the relationship between injury and performance in United States Special Operations Forces and how current research is driving the improvement of active duty health, wellness, and performance. This discussion will also focus these points on what we as Athletic Trainers in the civilian sector can learn from these injury and performance efforts in the military and apply to our own practice.

Learning Objectives

1. Understand the performance and training requirement in the special operations community
2. Understand the connection between what we do as athletic trainers here in Kentucky and what is being done in the military
3. Understand the emerging evidence-based work for improving health outcomes in the military and how we might be able to use this information in our practice

Speaker Biography

Dr. Heebner joined the University of Kentucky in August 2015 as an Assistant Professor in the Division of Athletic Training and Associate Director for Research at the Sports Medicine Research Institute. He received his Bachelor's degree in Kinesiology / Athletic Training from the Pennsylvania State University and his Master's and Doctorate degrees from the University of Pittsburgh in Sports Medicine and Rehabilitation Science. His current research activities focus on injury prevention and performance enhancement in Special Operations Forces. Dr. Heebner's previous work has focused on lower extremity injury and biomechanical and neuromuscular risk factors for anterior cruciate ligament injury. His other research interests include injury prevention and performance enhancement in the ultra-endurance athlete and the application of portable/wearable technology for injury prevention and rehabilitation.

Category A Session: 1 hour

Utilizing Your Athletic Training Skills in the Ergonomic/Industrial Setting

Ray Albensi, MS, ATC, CEAS and Bill Welsh, MS, ATC, CHES, CEAS, CSCS

Course Description

The purpose of this presentation is to inform the audience about the non-traditional setting of industrial athletic training and give some insight on the day-to day responsibilities of an athletic trainer working in this setting. It will also discuss various certifications and courses that are helpful if starting out as an athletic trainer in this particular setting, especially as a part-time consultant.

Learning Objectives

1. Define ergonomics and the ability to recognize risk factors associated with work-related MSD's
2. Identify common work-related MSD's and ergonomic control methods for reducing/eliminating them
3. Identify injury prevention techniques for the industrial setting
4. Gain knowledge of various certifications related to ergonomic assessment and industrial safety

Speaker Biography

Ray Albensi is a 1988 graduate of Penn State University, obtained a Master's Degree in Athletic Training in 1992 from West Virginia University, and a second Master's Degree in Health Administration from the University of Kentucky. Ray has provided injury prevention services to industry since 1997.

Bill Welsh is a 1992 graduate of the State University of New York College at Cortland with a Bachelor of Science in Health Science and a 1995 graduate of Eastern Kentucky University with a Master's of Science degree in Physical Education. He is currently pursuing a Doctorate of Education degree in Educational Leadership at the University of Kentucky.

Bill is a Certified Athletic Trainer who has worked at the collegiate, high school, and clinical settings throughout his career providing athletic training services to athletes and patients. He is also an Assistant Professor at Kentucky State University teaching courses in Health, Physical Education, and Sports Medicine. He is a CPR/AED/First Aid instructor and a Certified Health Education Specialist, as well a Certified Strength and Conditioning Specialist.

EBP Session: 1 hour

The Multi-Ligament Knee: From Diagnosis to Outcomes

Chaitu S. Malempati, DO and Caitlyn Conley, PhD, ATC

Course Description

This session will discuss the continuum of multi-ligament knee injuries from immediate management and evaluation to treatment and rehabilitation outcomes. Multi-ligament knee injuries are complex traumatic events in athletics that have unique components to each injury. The specific mechanics of injury and the factors orthopaedic surgeons evaluate when making a diagnosis will be presented. Additionally, the different treatment options available and the factors that may influence the rehabilitation process will be examined. This will include outcome scales that can be implemented to document a patient's recovery. The presented information will assist athletic trainers in the treatment and management of these injuries.

Learning Objectives

1. Understand the pathophysiology and diagnosis of a multi-ligament knee injury with emphasis on immediate management
2. Recognize the treatment options for the various injuries associated with a multi-ligament knee injury
3. Identify factors influential to the rehabilitation process after a multi-ligament knee injury
4. Employ outcome scales beneficial in documenting a patient's recovery during the rehabilitation process

Speaker Biography

Caitlin Conley is an Assistant Research Professor in the Department of Orthopaedic Surgery and Sports Medicine at the University of Kentucky. She is a certified athletic trainer who graduated from the University of Kentucky with a PhD in Rehabilitation Sciences. At the University of Kentucky, she works with department faculty members on both industry sponsored projects and internal research projects. Her research area focuses on patient outcomes after cartilage surgery and post-operative rehabilitation adherence. She has worked in the Center for Cartilage Repair and Restoration at the University of Kentucky for over 6 years documenting patients' strength, function, and patient reported outcomes after cartilage surgery. Lastly, she also serves as the coordinator for an international patient outcomes registry.

EBP Session: 2 hours

Evidence Supporting a Treatment Based Classification Approach for Evaluating and Treating Athletic Spine Injuries

Timothy Uhl, PhD, ATC, PT, FNATA

Course Description

Classifying low back pain into treatment based categories is both a reliable and effective tool to alleviate many patients with back pain. As most of this research and publication has been performed in the Physical Therapy literature not as many Athletic Trainers are aware of this assessment and intervention approach in order to better evaluate athletes. Athletic Trainers need to learn and practice interventions associated with these categories in order to provide effective interventions.

Learning Objectives

1. Participants will learn how to triage patients using the treatment based classification system
2. Participants will be able to categorize patients into correct treatment based categories following the evaluation
3. Participants will be able to plan and perform exercise interventions for each category

Speaker Biography

Tim Uhl has been practicing physical therapy and athletic training since 1985 in various sport medicine settings. Tim received his Bachelors in Health Science from the University of Kentucky in Physical Therapy. He practiced physical therapy at the Lexington Clinic Sports Medicine Center and served as Head Athletic Trainer at Transylvania University until 1988. He pursued his Masters' degree in Kinesiology from the University of Michigan. At Michigan, he worked with the football team under Coach Bo Shembeckler where working toward a team goal was emphasized. Tim served both on the staff and as the director of outpatient physical therapy at the Human Performance and Rehabilitation Centers in Columbus, GA. This rehabilitation center served 18 orthopedic surgeon and the Hughston Sports Medicine Hospital, the first sports medicine hospital built in the United States founded by Jack Hughston MD. Tim completed his Doctorate in Sports Medicine from the University of Virginia in 1998 under Hall of Fame Athletic Trainer Joe Gieck and Hall of Fame Orthopedic Upper Extremity surgeon Dr. Frank McCue where he studied shoulder motor control. Dr. Uhl is presently a Professor in the Department of Rehabilitation Sciences, Division of Athletic Training at the University of Kentucky and Director of the Musculoskeletal Laboratory, and works clinically at Commonwealth Hand Therapy as a Physical Therapist and Athletic Trainer treating patients with upper extremity traumatic and overuse injuries. Tim's clinical and research interests are in musculoskeletal assessment and rehabilitation with particular interests in neuromuscular control and shoulder function. He has secured funding for his research in the area of scapula kinematics and shoulder rehabilitation from private industry and non-profit organizations. He has over 120 PubMed peer-reviewed publications. Here is a link to his publications:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/1TywvqnOhMKkv/bibliography/48571273/public/?sort=date&direction=ascending>

Tim is an active member of the Sport Physical Therapy Section of the American Physical Therapy Association; he also is a past-president of the American Society of Shoulder and Elbow

Therapists. Tim is one of five physical therapists in the United States that is an affiliate member of the American Shoulder and Elbow Surgeons society since 2004. He is currently the co-leader in creating Clinical Practice Guideline for Shoulder Instability for The American Physical Therapy Association and was co-author of "Shoulder Pain and Mobility Deficits: Adhesive Capsulitis" J Orthop Sports Phy Ther 43(5):A1-A31, 2013.

EBP Session: 1 hour

Evidence of the Current Opioid Crisis and the Role Athletic Trainers Play in Stemming its Impact

Kyle Kosik, PhD, ATC

Course Description

The use of opioids prescribed to adolescent and young-adults presenting to Emergency Departments across the United States for acute pain nearly doubled during the early part of this decade. Opioids may have value in managing acute musculoskeletal pain, however, their use should be considered carefully given the high potential for misuse and diversion associated with these medications. Athletic trainers are in a unique position to help educate patients and their family members on the potential harm of prescription opioids and provide non-pharmacological therapies to reduce the exposure of these addictive medications. Therefore, this session will aim to describe the current opioid crisis in the United States, demonstrate how common musculoskeletal injuries that occur during sport or recreational activities may contribute to this crisis and display the role athletic trainers have in minimizing its impact.

Learning Objectives

1. Attendees will be able to summarize the current opioid crisis in the United States and the past events that contributed to it.
2. Attendees will be able to recognize how acute musculoskeletal injuries that occur during sport or recreational activities might contribute to current opioid crisis.
3. Attendees will be able to explain the current practice guidelines for opioid prescribing.
4. Attendees will be able to identify risk factors associated abuse, misuse and diversion of opioids
5. Attendees will be able to recognize effective non-pharmacological interventions for acute musculoskeletal pain.

Speaker Biography

Kyle Kosik is a Post-Doctoral Scholar at the University of Kentucky; where he recently graduated from the Rehabilitation Science Doctoral program with his doctorate. Kyle's primary research interest is on understanding the origin of neuromuscular dysfunction and biomechanical adaptations following lower extremity joint injury, with a particular emphasis on ankle sprains.

Category A Laboratory Session: 1 hour (limit to 25 participants)

Clinical Assessment of Scapular Mobility Using a New Electric Goniometer: The Easy Angle

Oliver Silverson, MS, ATC and Nicole Cascia, MAT, ATC

Course Description

This course is designed to introduce a new clinical measurement device as a method to measure scapular mobility. We will cover the basics of scapular mobility assessment using the EasyAngle, an Inertial Measurement Unit electro-goniometer (Meloq AB, Stockholm, Sweden). Attendees will be exposed to the procedures and techniques of the device. Attendees will also be able to practice using the EasyAngle device during a hands-on demonstration.

Learning Objectives

1. Understand benefits and limitations of the Easy Angle to measure scapular mobility in 3 orthogonal planes
2. Understand standard procedures of the Easy Angle to measure scapular mobility in 3 orthogonal planes
3. Practice using the Easy Angle to measure scapular mobility in 3 orthogonal planes

Speaker Biography

Oliver Silverson, MS, ATC is a recent graduate from the University of Kentucky Post-Professional Masters of Athletic Training Program. During his time at UK, he served as graduate assistant in the Fayette County Public School System at Paul Laurence Dunbar High School and Beaumont and Leestown Middle Schools. He completed his graduate research project investigating scapular mobility in the Sports Medicine Research Institute. Oliver plans to continue his education at the University of Minnesota next year to pursue a PhD in Rehabilitation Science.

Nicole Cascia, MAT, ATC is a doctoral student in the University of Kentucky's Rehabilitation Sciences Program. Her primary research focus since joining the University of Kentucky has been to better understand the biopsychosocial and biomechanical factors related to clinical outcomes for those with upper extremity conditions. She is also involved with the University of Kentucky Sport Medicine Research Institute where she collects and analyzes shoulder 3D biomechanical data along with reliability data for evaluating scapular kinematics.

Category A Session: 0.5 hours
Creating an Inclusive Athletic Training Environment
Ariel Allman, MS, ATC, CSCS

Course Description

This presentation is intended to increase athletic trainers' knowledge and understanding of both other athletic trainers and patients that identify as a part of the LGBTQ+ community in order to increase the cultural competency of clinical athletic trainers and educators. Inclusivity education and training better prepares athletic trainers to create an environment of inclusivity and equal opportunity for all patients, regardless of sexuality, gender identity or gender expression. This presentation will provide clinicians with the tools to practice effective cross-cultural communication and be prepared to work respectfully and effectively in diverse work environments as it relates to LGBTQ+ athletic trainers and patients.

Learning Objectives

1. Able to define commonly used LGBTQ+ terms that create cultural awareness in patient care
2. Able to incorporate educational resources about inclusive AT environments into their athletic training clinical settings
3. Able to incorporate best practices in providing equitable healthcare to LGBTQ+ patients, including proper referrals related to this population

Speaker Biography

Ariel Allman was born and raised in Orlando, FL. She got her Bachelor of Science in Athletic Training from the University of South Florida, and Masters of Science in Athletic Training from the University of Kentucky. Ariel is currently working for KORT Physical Therapy as an outreach Athletic Trainer at Midway University in Midway, KY. She is also the Kentucky state representative for the SEATA LGBTQ+ Advisory Committee.

Category A Laboratory Session: 0.5 hours (limit to 25 participants)
The Recognition and Assessment of Vestibular Consequences of Sports-Related Concussion
Carolina Quintana, MA, ATC

Course Description

This presentation is intended to introduce athletic trainers to laboratory measures of vestibular function while stressing the importance of assessing vestibular function following sports-related concussion. While it is well known that those who experience vestibular consequences have poorer outcomes and are at a higher risk of prolonged recoveries, the vestibular system is arguably one of the systems we have the least knowledge, assessment approaches, and most importantly intervention strategies. Following this session, athletic trainers will be able to use an understanding of the anatomy and physiology of the vestibular system to assess potential vestibular consequences following sports-related concussions and assess these potential impairments using the best strategies to identify those who may be at risk of a prolonged recovery.

Learning Objectives

1. Understand the basic anatomy and physiology of the vestibular system and the vulnerability of injury following sports-related concussion
2. Describe the common assessment strategies and their strengths and weaknesses
3. Perform and understand the common assessment strategies and recognize those at risk of a prolonged recovery

Speaker Biography

Carolina is a doctoral student in the Rehabilitation Science program within the College of Health Sciences at the University of Kentucky. Carolina received her Master's degree in Curriculum and Instruction from New Mexico State University and her Bachelor's degree in Athletic Training from Northern Arizona University. Carolina is currently a Graduate Student Research Assistant working on a pilot initiative to create and implement comprehensive concussion management guidelines for the thoroughbred horse racing jockeys, this includes annual baseline testing and athletic training coverage at local Kentucky racetracks. Additionally, she has worked with the Jockey Equestrian Initiative to conduct research focusing on the musculoskeletal, physiological, neurocognitive, and nutritional needs of the rider to optimize performance and athletic recovery of jockeys and equestrians. Her current research interests include the identification and treatment of vestibular consequences and deficits following sports related concussions and intervention strategies to reduce symptomology and provide a safer return to play. She also serves as the Kentucky state representative for the SEATA Ethnic Diversity Advisory Committee.

EBP Session: 1 hour

Manual Therapies for Chronic Ankle Instability: An Update on the Evidence

Matthew Hoch, PhD, ATC

Course Description

Manual therapy interventions are commonly used to restore mechanical ankle function in chronic ankle instability (CAI) patients; however, emerging evidence indicates that these interventions have more widespread benefits including improvements in sensorimotor and patient-reported function. Therefore, the rationale for incorporating manual therapy into CAI rehabilitation has expanded and several novel approaches for using these interventions have been developed. This presentation will review joint mobilization, massage, and other techniques applied to patients with CAI, synthesize the evidence related to treatment outcomes from mechanical, neurophysiological, and patient-centered perspectives, and discuss how manual therapy interventions have advanced the CAI rehabilitation paradigm.

Learning Objectives

1. Attendees will be able to explain the rationale for using manual therapy techniques in patients with chronic ankle instability.
2. Attendees will apply and interpret clinical outcome measures associated with manual therapies in patients with chronic ankle instability.
3. Attendees will be able to integrate the evidence related to joint mobilization, massage and other manual therapies for patients with chronic ankle instability into clinical decision making.
4. Attendees will be able to distinguish how manual therapy interventions contribute to the current rehabilitation paradigm for chronic ankle instability

Speaker Biography

Dr. Matt Hoch is an Assistant Professor in the Sports Medicine Research Institute at the University of Kentucky. He received his Ph.D. in Rehabilitation Sciences from the University of Kentucky in 2011, Masters of Science degree in Athletic Training from Ohio University in 2008, and Bachelor of Science degree in Athletic Training from East Stroudsburg University in 2006. His research interests involve mitigating sensorimotor compromise and enhancing patient-centered care following lower extremity injury to reduce the long-term consequences of these conditions over the lifespan.