



HARVARD
MEDICAL SCHOOL

SPORTS MEDICINE 2019

May 15-17, 2019 • Cambridge, MA

Comprehensive sports medicine updates for PHYSICIANS, PTs, NPs, PAs, ATCs

Guidance and Best Practices to Improve:

- Treatment of sports conditions
- Physical evaluation of sports injuries
- Use and interpretation of imaging
- Non-surgical management of injuries
- Multidisciplinary team-based treatment
- Safe return to play for athletes of all ages and abilities

2019 Updates and Expert-Led Education Covering:

- Regenerative medicine
- The role of vitamin D in health and performance
- Treatment of sports concussion
- Evaluation of the throwing athlete
- Sports cardiology: hypertension and acute coronary syndrome in athletes

Under the direction of
Joanne Borg-Stein, MD
Kelly McInnis, DO
Adam Tenforde, MD
William Palmer, MD

NEW: Four Optional Skills Development Programs

Sports Ultrasound | Running Medicine | Gymnastics Medicine | Sports Concussion

Register at SportsMedicine.HMSCME.com





HARVARD MEDICAL SCHOOL

Dear Colleague:

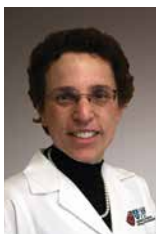
How we diagnose, treat, rehabilitate, and prevent sports injuries has advanced considerably for those of us who treat professional athletes and those who treat patients with active lifestyles, and so have the questions now being raised by clinicians.

Consider the following:

- What are the most effective methods, both surgically and non-surgically, to manage injuries to tendons, joints, muscles, and ligaments in athletes, and how does this differ from non-athletes?
- Do I know the current evidence regarding regenerative medicine and joint preservation techniques?
- What are the most current advances in management of sports concussion and methods to facilitate return to play?
- How do I optimize care for the female athlete?
- What is the role of point-of-care sports ultrasound for evaluation and treatment of sports injuries?
- What are the most current recommendations to reduce risk for hypertension and acute coronary syndrome in the athlete?
- What is the role of vitamin D for both health and sports performance?
- How do I optimize pain management in the professional athlete?

These are the types of questions and challenges that we address with this acclaimed program, which is led by world-renowned experts in PM&R, orthopedics, MSK radiology, primary care sports medicine, physical therapy, and athletic training. Education is practical with a focus on advancing your knowledge and skills, readily incorporating updates into practice, and ensuring patients the highest quality of care.

We hope you will join us.



Joanne Borg-Stein, MD
Course Director



Kelly McInnis, DO
Course Director



Adam Tenforde, MD
Course Director



William Palmer, MD
Co-Director

Course Overview

This comprehensive Sports Medicine course provides an in-depth, multidisciplinary approach to common musculoskeletal conditions by regional anatomy, providing a thorough overview in the evaluation and management of injuries using best evidence-based practice. Physiatrists, orthopedists, radiologists, physical therapists, and other sports medicine professionals with expertise in each topic will discuss both non-operative and surgical management of sports injuries, including the role of diagnostic imaging and interventional procedures, and rehabilitation to restore function, with the goal to facilitate safe and accelerated return to play.

The course presents an interdisciplinary approach to sports medicine care, including new and emerging treatments accounting for age and gender, and incorporates complex cases to synthesize learning. Special topics will include management of concussion, sports cardiology, gender and hormone influence on musculoskeletal health and injury, and orthobiologic interventions. Additional workshops are available to provide in-depth experience in gymnastics medicine, running medicine, sports concussion, and diagnostic and interventional ultrasound.



Customize
Your Learning Experience

Participate in one of the following four optional workshops to customize your learning experience:

- Sports Ultrasound
- Running Medicine 2019
- Gymnastics Medicine 2019
- Sports Concussion 2019

Learning Objectives

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

- Identify the most common sports medicine injuries by anatomy and associated risk factors including sport, age, and gender.
- Evaluate common injuries using best evidence-based practice in the physical examination, diagnostic imaging, and ultrasound techniques.
- Manage sports injuries effectively, with goals to improve the health of the athlete and facilitate accelerated and safe return to play.
- Counsel patients on preventative strategies that will assist them in maintaining optimal health while they participate in sports.
- Gain in-depth experience through workshops to advance care of runners, gymnasts, athletes suffering concussion, and more effectively utilize musculoskeletal ultrasound for sports conditions and orthobiologic injections.

Who Attends

- Physicians, NPs, and PAs from the fields of:
 - Sports Medicine
 - Physical Medicine and Rehabilitation
 - Orthopedics
 - Family Medicine
 - Internal Medicine
 - Emergency Medicine
 - Physical Therapists
 - Certified Athletic Trainers
- ...and other healthcare practitioners who work with athletes or patients who are physically active

Accreditation

The Harvard Medical School is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Harvard Medical School designates this live activity for a maximum of 34.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

- Three-day course, Sports Medicine 2019: 22.50 *AMA PRA Category 1 Credits™*
- Optional skills development workshops:
 - Running Medicine 2019: 12.25 *AMA PRA Category 1 Credits™*; Sports Ultrasound, Gymnastics Medicine 2019, or Sports Concussion 2019: 8.00 *AMA PRA Category 1 Credits™*

CANADIAN ACCREDITATION

The Royal College of Physicians and Surgeons of Canada recognizes conferences and workshops held outside of Canada that are developed by a university, academy, hospital, specialty society or college as accredited group learning activities.

EUROPEAN ACCREDITATION

Through an agreement between the American Medical Association and the European Union of Medical Specialists, physicians may convert *AMA PRA Category 1 Credit™* to an equivalent number of European CME Credits® (ECMECs®). Information on the process of converting *AMA PRA Category 1 Credits™* to ECMECs® can be found at: www.eaccme.eu.

Disclaimer: CME activities accredited by Harvard Medical School are offered solely for educational purposes and do not constitute any form of certification of competency. Practitioners should always consult additional sources of information and exercise their best professional judgment before making clinical decisions of any kind.

Harvard Medical School Faculty

Kathryn Ackerman, MD, MPH
Marwa Ahmed, MD, MS
Peter Asnis, MD
Ashwin N. Babu, MD
Eric Berkson, MD
Suzanne Bertisch, MD, MPH
Cheri Blauwet, MD
Philip Blazar, MD
Eric Bluman, MD, PhD
Joanne Borg-Stein, MD
Miriam A. Bredella, MD
Connie Chang, MD
Stacy Conneely, OTR/L, CHT
Irene S. Davis, PhD, PT
Brandon Earp, MD
Lauren Elson, MD
Christine Eng, MD
Gabriella Goshgigian, PT, DPT
Kathryn T. Hall, PhD, MPH
Lenore Herget, PT, DPT, SCS, MEd, CSCS
Kevin Houston, OD, MSc
Ambrose Huang, MD
Mary Alexis Iaccarino, MD
Grant L. Iverson, PhD
Arvin Kheterpal, MD
Dana Kotler, MD
Daniel Lieberman, PhD
Steven Makovitch, DO
Scott D. Martin, MD
Elizabeth Matzkin, MD
Kelly McInnis, DO
David Nolan, PT, DPT, MS, OCS, SCS, CSCS
Luke Oh, MD
Jereme Outerleys, MASC
Joshua Posilkin, PT, DPT
Mark Price, MD, PhD
Lars Richardson, MD
Dawn Rogers, PT, DPT, OCS
Darren Rosenberg, DO
Emily Roy, PT, DPT
Joseph F. Simeone, MD
Can Tan, PhD
Adam Tenforde, MD
George H. Theodore, MD
Jon J.P. Warner, MD
Meagan Wasfy, MD
Lindsay Wasserman, PT, DPT, FAAOMPT, RYT-200
Ross Zafonte, DO

Guest Faculty

Jessica Aidlen, MD, Clinical Assistant Professor, Orthopaedic Surgery, Tufts University School of Medicine
Paul Buchheit, MS, ATC, CSCS, Assistant ATC, Boston Red Sox
Ellen Casey, MD, Associate Professor of Clinical Rehabilitation Medicine, Weill Cornell Medical College
David J. Cormier, DO, DPT, Sports Medicine Physician, Wentworth-Douglass Hospital; Team Physician, University of New Hampshire
Daniel Cushman, MD, Associate Professor of Physical Medicine and Rehabilitation, University of Utah School of Medicine
Wayne Derman, MBChB, BSc (Med)(Hons), PhD, FFIMS, Director and Chair, Institute of Sport and Exercise Medicine, Stellenbosch University, South Africa
Timothy Foster, MD, MBA, Associate Professor, Boston University School of Medicine
Jacob Hofer, MD, Private practice
Michael Holick, MD, Professor of Medicine, Physiology and Biophysics, Boston University School of Medicine
Brian Krabak, MD, MBA, Clinical Professor of Orthopedics, University of Washington School of Medicine
Matthew Leibman, MD, Clinical Assistant Professor, Tufts University School of Medicine
Robert Nascimento, MD, Clinical Assistant Professor, Orthopaedic Surgery, Tufts University School of Medicine
William Roberts, MD, Professor of Family Medicine and Community Health, University of Minnesota Medical School
Karin Silbernagel, PT, PhD, ATC, Assistant Professor Physical Therapy, University of Delaware College of Health Science
Emily Sweeney, MD, Assistant Professor of Orthopedics, University of Colorado School of Medicine
David Tilley, DPT, SCS, CSCS, Private practice
James Whalen, MEd, ATC, Head Athletic Trainer, New England Patriots

Agenda

Wednesday • May 15

| | |
|---------------------|---|
| 7:00am | Registration |
| 7:50am | Welcome and Introduction Joanne Borg-Stein, MD |
| Shoulder | |
| 8:00am | Rotator Cuff Disease: Science or Science Fiction? Jon J.P. Warner, MD |
| 8:20am | Cuff Pathology in the Young Athlete Cheri Blauwet, MD |
| 8:40am | MLB Experience: Update on Thrower's Shoulder Eric Berkson, MD |
| 9:00am | Shoulder Examination of the Overhead Athlete: Exam Demo Luke Oh, MD |
| 9:20am | Audience Q&A, Expert Panel Discussion Shoulder Session Faculty |
| 9:40am | Break (refreshments provided) |
| 10:00am | Shoulder MRI: Expected and Unexpected Findings in Throwers Miriam A. Bredella, MD |
| 10:20am | Point-Counterpoint: Surgery for First-Time Dislocation in the Athlete: Bankart vs. Laterjet Lars Richardson, MD and Robert Nascimento, MD |
| 10:40am | Rehab and Return to Play: Focus on the Overhead Athlete Paul Buchheit, MS, ATC, CSCS |
| 11:00am | Audience Q&A, Expert Panel Discussion Shoulder Session Faculty |
| Elbow | |
| 11:20am | Lateral Epicondylitis: Model for Orthobiologics for Tendinopathy (including post-procedure rehab) Joanne Borg-Stein, MD |
| 11:40am | Distal Biceps and Triceps Injuries Luke Oh, MD |
| 12:00pm | Break for lunch* |
| 1:20pm | Elbow Injuries in the Gymnast Steven Makovitch, DO |
| 1:40pm | Acute Elbow Injuries: What Not to Miss Brandon Earp, MD |
| 2:00pm | Elbow MRI: Throwing Athlete Joseph F. Simeone, MD |
| 2:20pm | Rehab and Return to Play: Focus on the Lateral Elbow Stacy Conneely, OTR/L, CHT |
| 2:40pm | Audience Q&A, Expert Panel Discussion Elbow Session Faculty |
| 3:00pm | Break (refreshments provided) |
| Wrist / Hand | |
| 3:20pm | Common Fractures in Athletes Philip Blazar, MD |
| 3:40pm | Nerve Entrapment in Athletes: New Ultrasound-Guided Techniques Christine Eng, MD |
| 4:00pm | Plain Radiographs 101: Common Injuries in Sports Connie Chang, MD |
| 4:20pm | NHL and MLB Experience: Interesting Cases Matthew Leibman, MD |
| 4:40pm | Audience Q&A, Expert Panel Discussion Wrist / Hand Session Faculty |

Agenda

Thursday • May 16

Hip

- 8:00am **Female Athlete Hip Injuries**
Kelly McInnis, DO
- 8:20am **Extra-articular Impingement**
Ellen Casey, MD
- 8:40am **Natural History of FAI**
Scott D. Martin, MD
- 9:00am **MRI: FAI and Labral Pathology**
Arvin Kheterpal, MD
- 9:20am **Audience Q&A, Expert Panel Discussion**
Hip Session Faculty
- 9:40am Break (refreshments provided)
- 10:00am **NFL Experience: Hamstring Injuries**
Mark Price, MD, PhD
- 10:20am **Rehab and Return to Play: Hamstring Rehabilitation and Prevention**
James Whalen, MSED, ATC
- 10:40am **Orthobiologics for Acute and Subacute Soft-Tissue Injuries**
Ashwin N. Babu, MD
- 11:00am **Audience Q&A, Expert Panel Discussion**
Hip Session Faculty

Knee

- 11:20am **ACL Reconstruction: Graft Choice Update**
Peter Asnis, MD
- 11:40am **Approach to ACL Injuries in the Female Athlete**
Elizabeth Matzkin, MD
- 12:00pm Break for lunch*
- 1:20pm **Rehab and Return to Play: State of ACL Prevention Programs**
David Nolan, PT, DPT, MS, OCS, SCS, CSCS
- 1:40pm **MRI Knee: Cruciates and Collaterals**
Ambrose Huang, MD
- 2:00pm **Influence of Hormones on Ligament Health**
Ellen Casey, MD
- 2:20pm **Point-Counterpoint: PRP vs “Stem Cell” Injection for Knee OA**
David J. Cormier, DO, DPT and Christine Eng, MD
- 2:40pm **Audience Q&A, Expert Panel Discussion**
Knee Session Faculty
- 3:00pm Break (refreshments provided)

Foot / Ankle

- 3:20pm **Lower Leg Pain: Neurovascular Etiologies**
Dana Kotler, MD
- 3:40pm **Foot and Ankle-opathies**
Adam Tenforde, MD
- 4:00pm **Foot and Ankle Exam Demo**
George H. Theodore, MD
- 4:20pm **Injuries in Dancers**
Lauren Elson, MD
- 4:40pm **Rehab and Return to Play: Updated Science on Optimizing Foot/Ankle Mechanics**
Irene S. Davis, PhD, PT
- 5:00pm **Audience Q&A, Expert Panel Discussion**
Foot / Ankle Session Faculty

Friday • May 17

Head, Neck, Trunk

- 8:00am **Concussion: Neuropsychological Testing in 2019**
Grant L. Iverson, PhD
- 8:20am **Active Rehabilitation and Use of Medications**
Mary Alexis Iaccarino, MD
- 8:40am **Chronic Traumatic Encephalopathy: Research Gaps and Controversies**
Ross Zafonte, DO
- 9:00am **Rehab and Return to Play: Utility of VOMS and Vestibular Rehab**
Lenore Herget, PT, DPT, SCS, MEd, CSCS
- 9:20am **Audience Q&A, Expert Panel Discussion**
Head, Neck, Trunk Session Faculty
- 9:40am Break (refreshments provided)
- 10:00am **MLB Experience: Trunk Injuries**
Kelly McInnis, DO
- 10:20am **Lumbar Radiculopathy: Surgical Indications and Return to Play**
Jessica Aidlen, MD
- 10:40am **Extraspinal Sciatica**
Joanne Borg-Stein, MD
- 11:00am **Lower Back Pain in the Golfer**
Darren Rosenberg, DO
- 11:20am **Rehab and Return to Play: Lumbopelvic Rehab Pearls**
Dawn Rogers, PT, DPT, OCS
- 11:40am **Audience Q&A, Panel Discussion**
Head, Neck, Trunk Session Faculty
- 12:00pm Break for lunch*

Hot Topics

- 1:00pm **Triathlon Medicine**
Marwa Ahmed, MD, MS, Dana Kotler, MD, and Adam Tenforde, MD
- 1:20pm **Evidence-Based PPE**
William Roberts, MD
- 1:40pm **Cutting-Edge Orthobiologics: Scaffolds, Biomaterials, Hydrogels**
Timothy Foster, MD, MBA
- 2:00pm **Youth Runners: Special Considerations**
Brian Krabak, MD, MBA
- 2:20pm **Placebo Effect Is Strong**
Kathryn T. Hall, PhD, MPH
- 2:40pm **Audience Q&A, Panel Discussion**
Hot Topics Session Faculty
- 3:00pm Break (refreshments provided)
- 3:20pm **Sexuality in Sports**
Kathryn Ackerman, MD, MPH
- 3:40pm **Beyond Bone Health: Vitamin D Influence on Healing, Pain, Performance**
Michael Holick, MD
- 4:00pm **Sleep Dysfunction in Athletes**
Suzanne Bertisch, MD
- 4:20pm **Sports Cardiology: HTN and ACS in Athletes**
Meagan Wasfy, MD
- 4:40pm **Pain Management in the Elite Athlete**
Wayne Derman, MBChB, BSc (Med)(Hons), PhD, FFIMS
- 5:00pm **Audience Q&A, Expert Panel Discussion**
Hot Topics Session Faculty
- 5:20pm **Course Wrap-Up**
Kelly McInnis, DO

Program changes/substitutions may be made without notice. To view the most up-to-date version of the course program, please visit the course website.

**There are many convenient and varied lunch options within a short walking distance of the course.*

Reasons to Attend

In the past year, there have been a number of very significant clinical changes that affect the way we diagnose, treat, and rehabilitate sports injuries incurred by elite athletes, weekend warriors, and patients with active lifestyles. This program provides a special and timely opportunity to hear directly from world-renowned physician specialists (physiatrists, orthopedists, radiologists), team physicians and athletic trainers for the Boston Red Sox, Boston Bruins, New England Revolution, and New England Patriots, and physical therapists on the cutting edge of rehabilitation about these changes and how to incorporate them into practice to improve:

- Treatment outcomes for acute and overuse injuries of the spine, knee, hip, foot, and ankle, along with upper extremity conditions of the shoulder, neck, elbow, hand, and wrist
- The effectiveness and expediency of physical evaluations
- Appropriate diagnostic imaging and interpretation
- Rehabilitation and return to play
- Utilization of physical therapists and athletic trainers
- Non-surgical management of injuries
- Decisions to refer patients for surgery
- Multidisciplinary team-based treatment
- Injury prevention
- Pre-participation evaluation
- Treatment of special populations, including gymnasts, runners, and throwing athletes

Unique to this program is its immersive, fast-paced, 360-degree educational experience. You will learn about changes and advances in sports medicine from three critical, interrelated perspectives:

- Physical Medicine and Rehabilitation
- Musculoskeletal Radiology
- Orthopedics

Educational highlights include:

- The most effective methods, both surgically and non-surgically, to manage injuries to tendons, joints, muscles, and ligaments in athletes vs. non-athletes
- When and how to utilize cutting-edge regenerative sports medicine treatments
- Updates for joint preservation treatment in the athlete
- Advances in the management of sports concussion and methods to facilitate return to play
- Practice recommendations to optimize care of the female athlete
- Guidance for point-of-care ultrasound for evaluation and treatment of sports injuries
- New recommendations for addressing hypertension and risk for acute coronary syndrome in athletes
- Advances in knowledge regarding the role of vitamin D for health and performance of athletes

Optional Workshops

Customize your learning experience by attending a highly focused skills development workshop. The nation's foremost authorities in four disciplines of sports medicine lead these highly interactive and hands-on programs. *See website for full schedules.*

SportsMedicine.HMSCME.com



Sports Ultrasound: Diagnostic and Orthobiologic Techniques of the Shoulder and Knee

Saturday • May 18, 7:30am – 5:15pm

Directors: Ashwin N. Babu, MD and Joanne Borg-Stein, MD



Gymnastics Medicine 2019: Current Concepts and Future Directions

Saturday • May 18, 8:00am – 5:30pm

Directors: Christine Eng, MD; Steven Makovitch, DO; and David Tilley, DPT, SCS, CSCS



Running Medicine 2019: Optimizing Treatment of Foot and Ankle Injuries

Saturday • May 18, 8:00am - 5:30 pm and Sunday • May 19, 8:00am - 1:00pm

Directors: Irene S. Davis, PhD, PT and Adam Tenforde, MD

This workshop will take place at Spaulding Hospital Cambridge. Breakfasts and Saturday lunch will be served.



Sports Concussion 2019: Using Exercise and Active Rehabilitation for Recovery

Saturday • May 18, 8:00am – 5:30pm

Directors: Mary Alexis Iaccarino, MD and Lenore Herget, PT, DPT, SCS, MEd, CSCS



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SPORTS MEDICINE

Education for **PHYSICIANS, PTs, NPs, PAs, ATCs**

May 15-17
2019
Cambridge, MA



Comprehensive approaches for improved:

- Physical examination of sports injuries
- Use and interpretation of imaging
- Treatment outcomes
- Rehabilitation and return to play
- Team-based approach to sports medicine treatment with physical therapists and athletic trainers

*Earn up to
34.75 AMA PRA
Category 1 Credits™*

This program features 360-degree education, updates, best practices, and hands-on skills development workshops from Harvard Medical School's leading experts in the areas of:

- Physical Medicine and Rehabilitation
- Musculoskeletal Radiology
- Orthopedics

Register at SportsMedicine.HMSCME.com





HARVARD MEDICAL SCHOOL

SportsMedicine.HMSCME.com

| Sports Medicine 2019 (Course #734715-1902) | Register after March 31, 2019 | Register on or before March 31, 2019 |
|---|----------------------------------|---|
| Course Tuition May 15 - 17 | \$995 | \$895 (SAVE \$100) |
| OPTIONAL SKILLS DEVELOPMENT WORKSHOPS | | |
| Sports Ultrasound May 18, 7:30am - 5:15pm (limited to 40 participants) | \$545 | \$495 (SAVE \$50) |
| Running Medicine 2019* May 18, 8:00am - 5:30pm and May 19, 8:00am - 1:00pm (limited to 60 participants) | \$495 | \$445 (SAVE \$50) |
| Gymnastics Medicine 2019 May 18, 8:00am - 5:30pm (limited to 50 participants) | \$345 | \$295 (SAVE \$50) |
| Sports Concussion 2019 May 18, 8:00am - 5:30pm (limited to 50 participants) | \$345 | \$295 (SAVE \$50) |

Your tuition includes mid-morning and afternoon refreshments, complimentary internet in the meeting room, and an electronic syllabus.

*The workshop Running Medicine 2019 will take place at Spaulding Hospital Cambridge. Two breakfasts and one lunch will be served, and there will be an evening reception on Saturday.



VENUE

Boston Marriott Cambridge
Two Cambridge Center
50 Broadway, Cambridge, MA 02142
617-494-6600

ACCOMMODATIONS*

A limited number of discounted rooms have been reserved at the Boston Marriott Cambridge until April 23, 2019. You can call the hotel reservation line to make a room reservation: (800) 228-9290 or (617) 494-6600. Please specify that you are enrolled in this activity in order to request the reduced room rate. To make your discounted reservation online, please visit the course website by April 23, 2019 and click on the dedicated room reservation link on the Venue page.

Please do not make non-refundable travel arrangements until you have received an email from our office confirming your paid registration.

*Please note that the discounted rooms may sell out before the deadline.

INQUIRIES

Call 617-384-8600 Mon-Fri 9am – 5pm (ET) or e-mail CEPrograms@hms.harvard.edu

REGISTRATION, PAYMENT, CONFIRMATION, and REFUND POLICY

Registrations for Harvard Medical School CME programs are made via our secure online registration system. To register for this course, please visit the course website at SportsMedicine.HMSCME.com.

At the end of the registration process, a \$10 non-refundable processing fee will be added to your registration, and you will have the choice of paying by check, credit card (Visa, MasterCard, or American Express), or wire transfer in USD. If you are paying by check (draft on a United States bank) or by wire transfer, the online registration system will provide you with instructions for remitting your course fees. Postal, telephone, fax, and cash-payment registrations are not accepted. All fees shown in USD.

Upon receipt of your paid registration, an email confirmation will be sent to you. Be sure to include an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation, and certificate. Refunds, less an administrative fee of \$75, will be issued for all cancellations received two weeks prior to the start of the course. Refund requests must be received by email. No refund will be issued should cancellation occur less than two weeks prior. “No shows” are subject to the full course fee and no refunds will be issued once the conference has started.