SPORTS CONCUSSION

JULY 20–22, 2018
INDIANAPOLIS, IN

CONFERENCE

JW MARRIOTT INDIANAPOLIS

EARLY REGISTRATION/HOTEL DEADLINE: JUNE 14, 2018
THE VERY LATEST IN SPORTS CONCUSSION SAFETY, PREVENTION, AND TREATMENT

Each year, 1.6 to 3.8 million recreational and competitive American athletes develop a concussion. Sport-related concussion conversations are often shaped by the media, which increasingly has been reporting on this issue. We believe the conversations surrounding sport-related concussion should be evidence- or consensus-based, and should be shaped by emerging scientific information.

The 2018 AAN Sports Concussion Conference is poised to be a leading voice in shaping the sport-related concussion conversation for all clinicians and scientists involved in the prevention, diagnosis, and management of sport-related concussion. Concussion experts will present up-to-date best practices and emerging scientific information through a variety of formats, including hands-on workshops and debates, to help you:

- Describe the current state and emerging science regarding concussion pathophysiology, diagnosis, and management
- Learn about the latest clinical tools and technologies for diagnosis and management
- Discover emerging issues in post-concussion syndrome diagnosis and management
- Discuss the potential long-term sequelae from sport-related brain trauma

Physicians may earn up to 20 CME, and Athletic Trainers may earn up to 20 CE, along with valuable skills that may be applied to youth, high school, collegiate, or professional arenas.

BOC APPROVED CE PROVIDER
American Academy of Neurology Institute is recognized by the Board of Certification, Inc. to offer continuing education for Certified Athletic Trainers.

ACCREDITATION
The American Academy of Neurology Institute (AANI), (the educational subsidiary of the AAN) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.
### SCHEDULE OVERVIEW

#### FRIDAY, JULY 20

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>PROGRAM</th>
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<tbody>
<tr>
<td>8:00 a.m.</td>
<td>11:00 a.m.</td>
<td>Concussion Boot Camp (additional registration fee required)</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>12:00 p.m.</td>
<td>Keynote Address</td>
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<tr>
<td>12:00 p.m.</td>
<td>1:30 p.m.</td>
<td>Working Lunch with Experts</td>
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<tr>
<td>1:30 p.m.</td>
<td>3:30 p.m.</td>
<td>Concussion Overview</td>
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<tr>
<td>3:30 p.m.</td>
<td>3:45 p.m.</td>
<td>Break</td>
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<tr>
<td>3:45 p.m.</td>
<td>5:30 p.m.</td>
<td>The NCAA-DoD CARE Consortium</td>
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<tr>
<td>5:30 p.m.</td>
<td>6:30 p.m.</td>
<td>Poster Session I and Exhibit Hall Opening Reception</td>
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<tr>
<td>7:00 p.m.</td>
<td>8:30 p.m.</td>
<td>Networking Reception at the NCAA Hall of Champions</td>
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#### SATURDAY, JULY 21

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<thead>
<tr>
<th>START TIME</th>
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<tbody>
<tr>
<td>8:00 a.m.</td>
<td>9:15 a.m.</td>
<td>What Do I Do Now? Concussion Subtypes Part I</td>
</tr>
<tr>
<td>9:15 a.m.</td>
<td>9:45 a.m.</td>
<td>Poster Session II</td>
</tr>
<tr>
<td>9:45 a.m.</td>
<td>11:00 a.m.</td>
<td>What Do I Do Now? Concussion Subtypes Part II</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>11:45 a.m.</td>
<td>Medical-legal Considerations</td>
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<tr>
<td>11:45 a.m.</td>
<td>1:15 p.m.</td>
<td>Poster Session II and Lunch</td>
</tr>
<tr>
<td>1:15 p.m.</td>
<td>3:15 p.m.</td>
<td>Other Evolving Research</td>
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<tr>
<td>3:15 p.m.</td>
<td>3:30 p.m.</td>
<td>Break</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>4:10 p.m.</td>
<td>Cutting-edge Science: Speech Recognition as a Diagnostic Marker of Concussion</td>
</tr>
<tr>
<td>4:10 p.m.</td>
<td>4:30 p.m.</td>
<td>The Vulnerable Brain: Does Age of Head Contact Exposure Matter?</td>
</tr>
<tr>
<td>4:30 p.m.</td>
<td>5:30 p.m.</td>
<td>The American Development Model and Contact Sports: Panel Discussion</td>
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#### SUNDAY, JULY 22

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<tr>
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<tr>
<td>8:00 a.m.</td>
<td>9:30 a.m.</td>
<td>Chronic Sequelae of Concussion and Repetitive Head Impact</td>
</tr>
<tr>
<td>9:30 a.m.</td>
<td>11:30 a.m.</td>
<td>A Year in Review——Understanding the Rapid Evolution of the Clinical and Research Landscape</td>
</tr>
</tbody>
</table>
The Concussion Boot Camp provides all clinical care providers with practical, ready-to-use skills for baseline/preparticipation evaluations, sideline concussion assessments, and clinical neurological examinations, including neuro-ophthalmologic and vestibular testing. Essential office management and coding issues will also be discussed. This session is great for first-time meeting attendees, as well as those more experienced who are looking to update and refine their clinical concussion skills.

Additional registration fee required.

Preparticipation and Baseline Evaluations
Vernon Williams, MD–Los Angeles, CA
- General
- The Role of Guidelines–Berlin, NCAA, AMSSM, and NATA
- Socio-economic Considerations

Sideline and Acute Evaluation
David Kaufman, DO–East Lansing, MI
- The Importance of Triage:
  Emergency Assessment of Cervical Spine and More Severe TBI
- Essential Features of the Neurologic and Neuro-Ophthalmologic Exam
- The Evolving Role of the Neurologist

Vestibular and Balance Testing
Jamie Bogle, PhD–Scottsdale, AZ
- What is Reliable and Reproducible?

Cognitive and Behavioral Assessment
Ruben Echemendia, PhD–State College, PA
- Are There Unique Markers for Concussion?

Office Follow-up and Management
Amaal Starling, MD–Scottsdale, AZ
Erin Stewart, MD–Indianapolis, IN
- Active versus Passive Management
- Coding Issues
KEYNOTE ADDRESS
CONCUSSION RESEARCH—THEN AND NOW
11:00 A.M.–12:00 P.M.

Michael McCrea, PhD—Milwaukee, WI

Faculty will provide an overview of how the relevancy and sense of urgency of concussion research has shifted dramatically over the past several decades. What used to be a topic that concerned a few lone scientists and clinicians has now become front and center in science, sport, and society.

Dr. McCrea is Tenured Professor, Eminent Scholar, and Vice Chair of Research in the Department of Neurosurgery at the Medical College of Wisconsin. He is also the Director of Brain Injury Research, as well as a research neuropsychologist at the Clement Zablocki VA Medical Center in Milwaukee, Wisconsin. He is ABCN board-certified in clinical neuropsychology and is past President of the American Academy of Clinical Neuropsychology (AACN).

Dr. McCrea has been an active researcher in the neurosciences, with numerous scientific publications, book chapters, and national and international lectures on the topic of traumatic brain injury. He authored the text Mild Traumatic Brain Injury and Postconcussion Syndrome: The New Evidence Base for Diagnosis and Treatment published by Oxford University Press.

Dr. McCrea has led several large, multi-center studies on the effects of traumatic brain injury and sport-related concussion. He currently is co-PI on the NCAA-DoD CARE Consortium and several other large-scale studies investigating the acute and chronic effects of TBI in various populations at risk.

Dr. McCrea serves as a neuropsychology consultant for the Green Bay Packers. He served as a panelist on the 2008 and 2012 Zurich International Consensus Conference on Sports Concussion and currently serves on the scientific committee for the 2016 International Consensus Conference.

WORKING LUNCH WITH THE EXPERTS
12:00 P.M.–1:30 P.M.

Join us for a working lunch while we ask experts to address controversial issues in sport.

**When is it Time to Recommend an Athlete Retire from Contact Sport?**

Thomas W. McAllister, MD—Indianapolis, IN
Jeffrey S. Kutcher, MD, FAAN—Brighton, MI

**What Do We Really Know About CTE?**

Robert Stern, PhD—Boston, MA
Ruben Echemendia, PhD—State College, PA

**Brain Imaging: When and What to Order and What to Do With Results?**

Michael McCrea, PhD—Milwaukee, WI
David W. Dodick, MD, FAAN—Phoenix, AZ

Fast, Easy Registration Online: AAN.com/view/SCC
CONCUSSION OVERVIEW 1:30 P.M.–3:30 P.M.

Practical and advanced presentations of acute concussion pathophysiology and biomechanics will be highlighted. Cutting-edge basic science and translational research will be covered, including post-concussive biological vulnerability. Return to activity discussion will include both return-to-academics and return-to-play. As distinctions between female and male athletes’ risk for concussion and trajectories of recovery become more apparent, this important topic will also be covered.

Concussion Pathophysiology
Christopher Giza, MD–Los Angeles, CA

Concussion Biomechanics
Thomas Blaine Hoshizaki, MD–Ottawa, ON, Canada

Sex and Gender
Tracey Covassin, PhD–East Lansing, MI

Return to Activity
Amaal Starling, MD–Scottsdale, AZ

BREAK 3:30 P.M.–3:45 P.M.

THE NCAA-DOD CARE CONSORTIUM 3:45 P.M.–5:30 P.M.

In 2014, the NCAA and the Department of Defense began a Cooperative Research and Development Agreement to jointly study concussion. The NCAA-DoD Grand Alliance resulted, which includes a Mind Matters Challenge and the CARE Consortium. CARE is the largest, prospective, clinical and advanced research concussion study ever performed. This session will provide a backdrop for the historic rationale of this study, while presenting emerging information that has already started to shape the concussion landscape.

Historic Rationale
Brian W. Hainline, MD, FAAN–Indianapolis, IN

Clinical Research Core
Thomas W. McAllister, MD–Indianapolis, IN

Advanced Research Core
Michael McCrea, PhD–Milwaukee, WI

Panel Discussion
Faculty

POSTER SESSION I 5:30 P.M.–6:30 P.M.
AND EXHIBIT HALL OPENING RECEPTION
NETWORKING RECEPTION AT THE NCAA HALL OF CHAMPIONS

SPECIAL NCAA RECEPTION 7:00 P.M.–8:30 P.M.
Join your colleagues at the National Collegiate Athletic Association (NCAA) Hall of Champions, located across the street from the JW Marriott, for a special networking reception from 7:00 P.M. – 8:30 P.M. on Friday, July 20, immediately following the Sports Concussion Conference.

The event, co-sponsored by the AAN and NCAA Sport Science Institute, will feature a welcome address by NCAA Chief Medical Officer Brian W. Hainline, MD, FAAN, and offer a unique opportunity for attendees to network and share knowledge and experiences.

SPECIAL INTEREST GROUP (SIG) MEETINGS
If you are interested in coordinating a one-hour SIG meeting, please contact Stephanie Szurek at sszurek@aan.com.

Fast, Easy Registration Online:  AAN.com/view/SCC
WHAT DO I DO NOW? CONCUSSION SUBTYPES PART I 8:00 A.M.–9:15 A.M.

Concussion is not a homogenous clinical entity, but presents with myriad manifestations, which in some cases is dominated by a specific clinical feature (‘subtypes’). This session focuses on prominent concussion subtypes, and will provide an overview of emerging management and return-to-activity principles that are subtype-specific.

Sleep Disturbances
Faculty

Behavioral Disturbances
Thomas W. McAllister, MD–Indianapolis, IN

Neuro-ophthalmologic Disturbances
Steven Galetta, MD, FAAN–New York, NY

POSTER SESSION II 9:15 A.M.–9:45 A.M.

WHAT DO I DO NOW? CONCUSSION SUBTYPES PART II 9:45 A.M.–11:00 A.M.

Balance Disturbances and Vertigo
Jamie Bogle, PhD–Scottsdale, AZ

Headache and Migraine
Tad Seifert, MD–Louisville, KY

Cervicogenic Disturbances
Faculty

MEDICAL-LEGAL CONSIDERATIONS 11:00 A.M.–11:45 A.M.

Steven Pachman, JD–Philadelphia, PA
Arianna Goodman, JD–Philadelphia, PA

This session will focus on the personal and institutional liability considerations health care providers face and must balance when making decisions regarding concussion care, both on the sideline and in the office.

POSTER SESSION II AND LUNCH 11:45 A.M.–1:15 P.M.

SEEKING ABSTRACTS

The Sports Concussion Conference will once again be accepting scientific abstract submissions on topics related to sports concussion. Accepted abstracts will be presented in the general poster sessions. Submission of previously presented work is encouraged if it is of interest to the field. The submission deadline is May 7. Visit AAN.com/view/SCC for more information.
OTHER EVOLVING RESEARCH  1:15 P.M.–3:15 P.M.

This session will provide an overview of some of the most relevant basic and clinical science in the field of concussion over the past year will be discussed.

**Helmet Design**
Thomas Blaine Hoshizaki, MD–Ottawa, ON, Canada

**Concussion and Repetitive Head Impact Exposure**
Michael McCrea, PhD–Milwaukee, WI

**MRI Imaging**
Geoffrey Manley, MD, PhD–San Francisco, CA

**Fluid Biomarkers**
Douglas H. Smith, MD–Philadelphia, PA

BREAK  3:15 P.M.–3:30 P.M.

CUTTING-EDGE SCIENCE: SPEECH RECOGNITION  3:30 P.M.–4:10 P.M.

**AS A DIAGNOSTIC MARKER OF CONCUSSION**

Faculty
Visar Barisha, PhD–Phoenix, AZ

The science of speech recognition has evolved considerably, and now has diagnostic value for various neuro-degenerative diseases. This session will provide an overview of the cutting-edge science of speech recognition and its potential role in the diagnosis and prognosis of concussion.

THE VULNERABLE BRAIN:  4:10 P.M.–4:30 P.M.

**DOES AGE OF HEAD CONTACT EXPOSURE MATTER?**

Robert Cantu, MD–Concord, MA

Contact/collision sports such as football, ice hockey, soccer, and lacrosse may be associated with repetitive head impact exposure. This session will discuss emerging concepts about the developing brain and possible vulnerability and potential long-term consequences to such exposure at a young age.

THE AMERICAN DEVELOPMENT MODEL  4:30 P.M.–5:30 P.M.

AND CONTACT SPORTS PANEL DISCUSSION

Robert Cantu, MD–Concord, MA
John Parsons, PhD–Indianapolis, IN

Faculty

The American Development Model is a concerted effort between the United States Olympic Committee and its National Governing Bodies of sport to apply long-term athlete development principles in a way that resonates with the culture of sport in the United States. This panel discussion will explore how contact sports can be incorporated into this model of excellence.
The development of chronic neurological sequelae after repeated brain injuries is of particular concern. The spectrum of cognitive, affective, and behavioral dysfunction and its possible relationship to concussion and repetitive head impact exposure will be explored, including emerging diagnostic and management considerations.

**Neuro-cognitive and Neuro-behavioral**
Robert Stern, PhD—Boston, MA

**CTE: A Post-traumatic Tauopathy**
Ann C. McKee, MD—Boston, MA

**The Black Hole of Post-concussion Syndrome**
Vernon Williams, MD—Los Angeles, CA

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Join us for the latest updates in concussion research and clinical guidance, with ample time for questions and answers.

**The Evolving Role of the Athletic Trainer in College and Youth Sport**
John Parsons, PhD—Indianapolis, IN

**Concussion and Repetitive Head Impact Research: Latest Advances**
Christopher Giza, MD—Los Angeles, CA

**Concussion and Repetitive Head Impact Clinical Pearls:**
A Rapidly Evolving Landscape
Christina Master, MD, FAAP, CAQSM—Philadelphia, PA

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Access resources on sports concussion for physicians, coaches, and parents, including the award-winning Concussion Quick Check mobile app.

Visit AAN.com/Concussion for more information.
CREDITS AND DISCLOSURES

CME CREDITS: 20 | CE CREDITS: 20

PROGRAM DESCRIPTION
This three-day conference will focus on the science behind concussion. Concussion experts will present up-to-date best practices and emerging scientific information through a variety of formats.

LEARNING OBJECTIVES
Participants should be able to accurately and appropriately diagnose concussion; institute appropriate and clinically useful diagnostic tests when indicated; provide state-of-the-art management of concussed athletes and individuals; make safe and appropriate return to play, school, work, and life decisions; and educate athletes, non-health care professionals, and other health care practitioners on key issues related to concussion.

RECOMMENDED AUDIENCE
Neurologists, Athletic Trainers, Primary Care Physicians, Neuropsychologists, and Sports Medicine Professionals.

ACCREDITATION
The American Academy of Neurology Institute (AANI), (the educational subsidiary of the AAN) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA CREDIT DESIGNATION
The AANI designates this live activity for a maximum of 20 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

BOC APPROVED CE PROVIDER
The AANI is recognized by the Board of Certification, Inc. to offer continuing education for Certified Athletic Trainers.

CERTIFICATES FOR NON-PHYSICIANS
Non-physicians participating in this program will receive an acknowledgement of participation indicating attendance at an activity designated for AMA PRA Category 1 Credit™.

EDUCATION DISCLAIMER
The primary purpose of the Sports Concussion Conference is to provide educational programs. Information presented, as well as publications, technologies, products and/or services discussed, are intended to inform attendees about the knowledge, techniques, and experiences of physicians who are willing to share such information with colleagues. A diversity of opinions exists in the medical field, and the view of the program’s faculty is offered solely for educational purposes. Faculty members’ views represent neither those of the AAN/ AANI nor constitute endorsement by the AAN/AANI. The AAN/AANI disclaims any and all liability for all claims which may result from the use of information, publications, products, and/or services discussed at the Sports Concussion Conference.

FACULTY’S DISCLOSURE OF COMMERCIAL RELATIONSHIPS
Consistent with the AAN/AANI and ACCME policies, faculty must disclose any significant financial or other relationship with the manufacturer(s) discussed in their presentation. This policy is intended to make participants aware of all speakers’ financial or other relationships, so that attendees may form their own judgments about material discussed during the educational activity. Full disclosure of faculty’s commercial relationships will appear in the individual program materials. All faculty must sign an AANI letter of agreement stating explicitly that they understand and will adhere to ACCME and AANI Disclosure Statement guidelines that require full disclosure of commercial relationships, unlabeled use of products, and identification of data sources.

UNLABELED USE DISCLOSURE
The AANI requires all faculty members to disclose if a product is not labeled for the use being discussed or that the product is still investigational. Such disclosures will appear in the individual program materials.
HOTEL INFORMATION

JW MARRIOTT INDIANAPOLIS
10 S. West Street, Indianapolis, IN 46204

SPECIAL ROOM RATES
The AAN has negotiated a sleeping room rate of $199 single/double, plus tax (includes basic WiFi in guest rooms) at the JW Marriott Indianapolis. Participants must identify the hotel and conference name to receive the special rate. All reservations must be accompanied by a first night room deposit or guaranteed by credit card at the time of booking. Check-in time is 3:00 p.m. and check-out time is 11:00 a.m.

RESERVATIONS
(877) 303-0104
AAN.com/view/scchotel

DEADLINE
June 14, 2018

CANCELLATION POLICY
Hotel allows individual attendees to cancel their own room reservation without penalty up to 24 hours in advance (by 3 p.m. ET) prior to the attendee’s scheduled arrival date. Any reservations cancelled within 24 hours of scheduled arrival, or failure of the individual to check-in on the scheduled arrival date, will be charged for one night’s room and tax on the credit card provided at booking.

The AAN does not validate parking.
**REGISTRATION IS QUICK AND EASY. CHOOSE BETWEEN:**

<table>
<thead>
<tr>
<th>ONLINE 1</th>
<th>AAN.com/view/SCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHONE 2</td>
<td>(800) 676-4226—US/Canada (415) 979-2283—International</td>
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**QUESTIONS?**  
Visit aansc.cmrushelp.com.

Contact CMR to pay by check. Registration forms only accepted for check payment.

**REGISTRATION DEADLINE**  
The deadline for early registration rates is Thursday, June 14, 2018. The deadline for late registration rates is Tuesday, July 17, 2018. Registrations received after this date will be charged the on-site rate.

**CANCELLATION**  
Programs are subject to cancellation if enrollment is insufficient. The AAN is not responsible for airfare, hotel, or other costs incurred by participants in the event of cancellation.

**REFUND POLICY**  
The AAN will assess a $50 administrative fee for cancellations received on or before Thursday, June 14, 2018. Refunds will not be issued for cancellations received after that date.

**SPECIAL ACCOMMODATIONS**  
If you require special accommodations, contact our registration team at registration@aan.com or (612) 928-6154.
**SIGN UP BEFORE THE JUNE 14 EARLY REGISTRATION DEADLINE AND SAVE $200!**

<table>
<thead>
<tr>
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**ADD-ON PROGRAM**
REGISTER FOR FULL CONFERENCE TO ATTEND ADD-ONS

| Concussion Boot Camp | $75 /person | $75 /person | $75 /person |

*Student, Intern, Junior, Business Administrator, Researcher, Advanced Practice Provider
**Honorary, Senior, Neurologist, Physician Affiliate
SIGN UP BEFORE THE JUNE 14 EARLY REGISTRATION AND HOTEL DEADLINE AND SAVE $200

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