

# sportsmedicine

WINTER 2017

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**SPORTS MEDICINE UPDATE** is a quarterly publication of the American Orthopaedic Society for Sports Medicine (AOSSM). AOSSM is a global leader in sports medicine education, research, communication, and fellowship, and is comprised of orthopaedic sports medicine specialists, including national and international sports medicine leaders. AOSSM works closely with many other sports medicine specialists and clinicians, including family physicians, emergency physicians, pediatricians, athletic trainers, and physical therapists, to improve the identification, prevention, treatment, and rehabilitation of sports injuries.

This newsletter is also available on the Society's website at [www.sportsmed.org](http://www.sportsmed.org).

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## FROM THE PRESIDENT

“There are five fundamental qualities that make every team great: communication, trust, collective responsibility, caring, and pride.”

—Mike Krzyzewski, Duke University Head Basketball Coach, 1980–present, 2016 US Men’s Basketball Team Head Coach, Gold Medal

As the saying goes, when the need for something becomes imperative, you are forced to find ways of getting it done. As a Society, we are accustomed to achieving success especially when coupled with our strong work ethic and our uncommon commitment to each other.

The simple secret of these achievements and others is rooted in teamwork. While writing this column on this beautiful fall weekend, 3 of the top 4 teams in college football were defeated by huge underdogs. How does that possibly happen? It can only happen when every member of the team has bought into the fundamental goal of his or her team. Through collective responsibility and trust, everyone puts in a little bit more to win, mistakes are overcome, and fear of failure does not even enter the picture, because you win or lose as a team.

After this weekend and having read the article “The Secrets of Teamwork” in the *Harvard Business Review*, my first thoughts were immediately of AOSSM. The Board of Directors recently approved our Strategic Plan to look forward and envision our future. We have a compelling direction with this plan and will be leading orthopaedic sports medicine in new pathways and education well into the future. However, none of this would be able to be completed without our volunteers and professional team who provide the strong structure and support for meeting our shared goals. Their energy on so many levels and belief in what needs to happen makes expectations attainable.

Here are a few examples of how our collective responsibility to our profession and the Society is on display every day:

- Brian Wolf, MD, MS, Program Chair for the 2017 Annual Meeting, announced

that we received a record 638 abstracts for the program. Reviewing and selecting the best-of-the-best for our educational program takes a lot of time and dedication from the Program Committee.

- In 2017 our Traveling Fellowship Program will touch three different continents and numerous educational sites throughout Asia, Europe, and South America. Each program is led by a Godfather, who this year will include:

—Christopher Kaeding, MD, Columbus, Ohio, 2017 AOSSM to Asia-Pacific (APKASS)

—Matteo Denti, MD, Monza, Lombardi, Italy, 2017 ESSKA to North America (AOSSM)

—Robert Schenck, MD, Albuquerque, New Mexico, 2017 AOSSM to South America (SLARD)

It isn’t lost on me how much these Godfathers and all those attending and teaching are committing to with this invaluable program. It’s truly extraordinary.

- Speaking of records, this fall we received 36 research award applications and we are entertaining even more grant programs. The Research Committee, led by Chair Matthew Provencher, MD, are looking to raise our stake in the research arena even higher.
- On the advocacy front, the Team Physician Committee, Committee on Legislative and Regulatory Affairs, and the Council of Delegates have all been focused on two very important pieces of legislation that have made great progress and will have a huge impact on members and our profession once passed:

—HR921/S.680: Sports Medical Licensure Clarity Act

This bill, which has already cleared the House, clarifies medical liability rules to ensure team providers are properly covered by their insurance while traveling with athletic teams in another state. Now called S.680, this bill was introduced in the Senate by Senators John Thune and Amy Klobuchar, and is working its way forward. Visit [www.aaos.org/advocacy](http://www.aaos.org/advocacy).

—HR3014: Medical Controlled Substances Transportation Act

This bill would authorize physicians to transport controlled substances from a practice setting to another practice setting or disaster area. HR 3014 must be considered by the Judiciary Committee before it can be voted on by the full House.

Most importantly, in good times and bad, we have always shared a common-bond in which we truly care for one another. Countless times over the years I have witnessed the true heart and soul of our members. Whether rallying to help a friend during a health crisis or celebrating our collective and individual successes—we have exemplified the human condition of caring for one another.

Some people like to say it takes a village. I prefer to say it takes a team. And I am both proud, and thankful, to be on the AOSSM team with you.

Annunziato Amendola, MD



# CONCUSSION UPDATE 2016

BY JARED WOLFE, MD, GEORGE C. BALAZS, MD, LANCE E. LECLERE, MD

**C**oncussions represent one of the largest sports-related sources of morbidity, second only to sprains and strains, and affects athletes at all levels of competition.<sup>40</sup> More than 1.5 million sports-related concussions occur on a yearly basis, though due to continued issues with reporting and diagnosis many experts believe that this number is an underestimate.<sup>1,2,3</sup> In recent years, increased understanding of the potential long-term consequences of concussions along with high profile cases receiving increased media attention have led to a surge in research on sports-related concussions.<sup>4</sup> The purpose of this review is to provide a summary of recent impactful clinical research and management guidelines on concussions.

A newfound societal concern regarding the rates and long-term consequences of concussions has led to multiple initiatives by governmental and non-governmental organizations to reduce the incidence of sports-related concussions. In 2009, Washington was the first state to pass a return to play law for youth sports, a precedence which has been followed by the remaining 49 other states.<sup>29</sup> Additionally, over the past several years the National Football League (NFL) and the National College Athletic Association (NCAA) have implemented many rule changes with the goal of reducing hits to the head and the incidence of concussions. From the 2012–13 season to the 2013–14 season a 12% reduction in the incidence of concussions was seen. Despite this recent trend, the current concussion rate is still 61% higher than what was reported in the 2002–2007 seasons.<sup>1</sup> Concussion rates have also been increasing at the youth sports level, from 2002 to 2012 concussion incidence rose by almost 400% among 4–13 year olds.<sup>6</sup> In a similar time period from 2005 to 2012, the rate among high school athletes also doubled.<sup>7</sup> While it is true that the increasing incidence of sports-related concussions is strongly correlated with implementation of these new policies and likely related to an overall increasing awareness and recognition of this phenomenon, the potential short-and long-term consequences for athletes of all ages cannot be overstated.<sup>6</sup> These potentially devastating outcomes make concussion related research a vital area of focus for sports medicine physicians and researchers.

### Pathophysiology

In 2013 the 4th International Sports Conference on Concussions and the American Medical Society for Sports Medicine both developed consensus statements that define a concussion as a “traumatically induced disturbance of brain function caused by a complex physiologic process.”<sup>8,9</sup> The ambiguity of this statement

reveals a lack of understanding regarding the exact pathophysiologic changes taking place in the human brain following a concussion. Over the past four to five years, new research on animal models has enhanced our understanding of the phases of injury and recovery and the biochemical changes associated with each.<sup>10</sup>

Following a traumatic insult to the brain there is a massive depolarization of the neurons and a large release of the neurotransmitter glutamate.<sup>11</sup> This results in a disruption of cellular homeostasis to which the brain responds with increased glucose consumption. However, at the same time, the cerebral blood flow is decreased, leading to an uncoupling of supply and demand. This uncoupling effect results in mitochondrial dysfunction and can lead to cellular apoptosis.<sup>12,13</sup> Recent studies in animal models have shown that this initial hypermetabolic state is followed by a period of decreased metabolic activity for about seven to 10 days, in which decreased neurocognitive functioning has been noted.<sup>10</sup> Although these same studies are not possible in human subjects, PET scans performed in concussion patients show patterns of glucose metabolism that are similar to those seen in animals.<sup>14</sup>

### Evaluation

Initial evaluation of an injured athlete at the high school level of competition and above is typically performed on the field by an athletic trainer or a sideline physician. At lower levels of competition this is often the role of the parents or coaches. Current recommendations are for a standard trauma evaluation followed by a sideline assessment for a concussion. Published guidelines by the National Athletic Trainers Association in 2014 recommended that this exam include an assessment of symptoms, physical and neurological exam, and balance testing. Additionally, whenever possible they recommend the use of a concussion-evaluation tool such as the Standardized

Concussion Assessment Tool 3 (SCAT3).<sup>41</sup> These recommendations were adopted as official guidelines by the NCAA in 2015. During the assessment of symptoms the provider should be cognizant of those symptoms suggesting a concussion has taken place. Recent literature shows that although loss of consciousness and confusion are two of the classic signs, they are only seen in 5% and 43% of concussions, respectively. Headache and dizziness, however, are seen in 93% and 75% of concussions.<sup>16</sup> This is further complicated by nondisclosure by the athlete. A 2015 survey of previous Division I athletes revealed a 33% nondisclosure rate among all athletes with the highest rate (68%) seen in football players and the lowest (14%) seen among female athletes. Commonly cited reasons were failing to recognize symptoms as a concussion, not wanting to miss game time, and feeling like they would let their team down.<sup>15</sup>

Further evaluation consists of a standard physical exam and often times the use of a sideline screening tool. In the past few years the use of these sideline screening exams has become required by various governing bodies.<sup>8</sup> A commonly used tool is the SCAT-3, which consists of three components, a symptom checklist, the Sideline Assessment of Concussion (SAC), and the modified Balance Error Scoring system (mBESS). Multiple recent studies have evaluated the validity of the SCAT-3, and have shown excellent sensitivity and specificity with a Receiver Operator Area Under the Curve of .88.<sup>42</sup> However, they have also shown variability with exam interpretation based off of the age and sex of the athlete, sport being played, and other medical comorbidities.<sup>17,18</sup> In an attempt to curtail these variables a baseline exam can be given at the start of the season, which has been shown to improve accuracy. However, not all of the exams have perfect test-retest reliabilities. Eckner, et al. found that more frequent testing led to improved scores.<sup>19</sup> Balance testing, both



on its own and incorporated with other tests, has been used over the past decade in an attempt to reduce some of the limitations found with earlier sideline-based concussion screening. Balance testing is quick, simple, and has good intra-observer reliability, but disadvantages include poor inter-observer reliability and typical return of results to baseline by three days after a concussion making it ineffective for intermediate to long-term monitoring.<sup>20,21</sup> Exciting developments on the horizon include technology based balance testing such as the Sensory Organization Test (SOT), which has shown improved objectivity and the ability to detect differences in concussed individuals up to 30 days post-injury.<sup>22</sup>

### Treatment

Once a concussion is suspected, the most important treatment to reduce risk to the injured athlete remains removal from competition. Premature return to play presents with a multitude of risks for the athlete. NCAA Division I football players who sustain a concussion in-season have a 6.5% chance of sustaining a second concussion later that season. Of those players, 75% will have their second concussion within seven days of their first.<sup>24</sup> The high risks to the athlete of

prematurely returning to play emphasize the importance of accurately assessing complete resolution of concussive effects and return of normal brain homeostasis.

The need for a physician to be able to accurately assess and determine when all concussive effects have dissipated has led to the development and implementation of neurocognitive testing for athletes at many levels.<sup>25</sup> One of the most common neurocognitive exams in the United States is Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT). Recent research has validated the specificity and sensitivity of ImPACT, and has also shown outstanding test retest reliability.<sup>26,27,28</sup>

One of the most common questions encountered while following an athlete with a concussion is how long until he or she can return to play. Historically, return to play has been permitted after the resolution of symptoms (e.g., headache, dizziness, etc.).<sup>23</sup> However, recent research has shown that resolution of symptoms does not mean return to normal brain homeostasis, which led to the NCAA adopting a stepwise return to play progression.<sup>26,43</sup> The six-step process begins following return of baseline neurocognitive exams. It begins with light aerobic activity and ends with full contact practice followed by return to play. If at

any point during this process the athlete has return of symptoms or decrease in neurocognitive testing, they immediately return to the previous step. Ultimately, even with uneventful progression through the first five stages, the decision to permit return to play rests with the team physician.<sup>43</sup>

Recently published literature has examined how institution of various preventative measures may impact concussion rates. Beginning with Washington in 2009 all 50 states have now passed return to play laws for youth sports. Despite these legal statutes, a 2012 study of high school athletes in Washington showed that 40% of athletes with concussions stated that they participated in games while experiencing symptoms.<sup>29</sup> In the 2011 season following the institution of the NCAA's new concussion policies, the incidence at three football programs was seen to double from the prior year.<sup>5</sup> While legal regulations are necessary, they alone will not change the culture of the coaches and players. Until this happens, large decreases in concussion rates will not be seen. Recent studies examining how changes in this culture could impact concussion rates have shown potential. In 2012, USA Football instituted the Heads Up Football (HUF) educational program, which includes training on proper equipment fitting, proper tackling technique, strategies for reducing player-to-player contact, concussion awareness, heat illness awareness, and sudden death information. Initiation of this program led to a 37% decrease in total head impacts over the course of the season.<sup>30</sup> Another study in 2013 showed that by limiting contact practices to once per week, head impacts per season could be reduced by 18%.<sup>31</sup>

### Long-Term Outcomes

Despite improved recognition and diagnosis of sports-related concussions over the past five years, many experts still feel that they are being underdiagnosed.<sup>4,6</sup>



A 2012 study by Rosenthal looking at the incidence of concussions in high school athletes showed a rate of .51 per 1000 athletic exposures (AE), which increased to .94 per 1000 AE in football.<sup>7</sup> This large burden of disease has led to increasing concern over what the long-term implications might be. Typically concussion symptoms resolve within ten days. However in up to 10% of individuals symptoms can last over three months, a condition classified as Post-Concussion Syndrome (PCS). In 20% of those with PCS symptoms can be permanent.<sup>9,32</sup> Another long term pathology seen in a small subset of concussion patients is Chronic Traumatic Encephalopathy (CTE). CTE is a progressive neurologic deterioration that may be related to repetitive mild traumatic brain injury.<sup>33</sup> Despite multiple studies examining the relationship no causality has ever been established between participation in contact sports or a history of concussion and development of CTE. At most the literature has only shown a weak association.<sup>32</sup> This is likely due to that while a patient's history, clinical examination, and imaging findings may be suggestive of CTE, the diagnosis can only be confirmed postmortem through pathologic examination of the brain.<sup>32,34</sup> Additional confusion stems from the fact that while certain characteristic brain lesions have been seen in patients

with CTE diagnosed postmortem, these changes have also been seen in autopsy examination of multiple patients who were asymptomatic at the time of death.<sup>33,35</sup> With this lack of clear diagnostic criteria for CTE, identification of risk factors or possible prevention strategies remains difficult. Current guidelines recommend athletes be counseled on the potential risk of CTE, the uncertain state of current scientific knowledge, and the importance of adhering to established treatment protocols following a concussion.<sup>35</sup>

Multiple recent studies have enhanced our understanding of the more subtle functional and cognitive changes that may be occurring. A 2009 study of almost 9,000 high school and college athletes showed a strong association between increasing number of concussions and increased neurocognitive symptoms on preseason exam. Significantly increased rates of sleeplessness, dizziness, depression, and irritability were all reported.<sup>36</sup> Additionally, a 2012 survey of 1,044 former NFL players showed a correlation between number of concussions and risk of depression, with a nine fold increase seen between those with zero concussions and those with more than 10.<sup>37</sup> New research has also demonstrated a functional impairment associated with concussions. A study of Major League Baseball (MLB) players returning from the disabled list for concussions showed that at two weeks they had worse comparative

batting average, on-base percentage, and slugging percentage than a matched group returning from bereavement or paternity leave, suggesting that resolution of symptoms does not necessarily mean return to normal function.<sup>38</sup> It is important to note, though, that despite most studies showing a relationship between increasing number of concussions and decreasing neurocognitive performance, not all have supported this finding. A study of 226 potential NFL draft picks showed no correlation between concussion history and Wonderlic or ImPACT scores.<sup>39</sup>

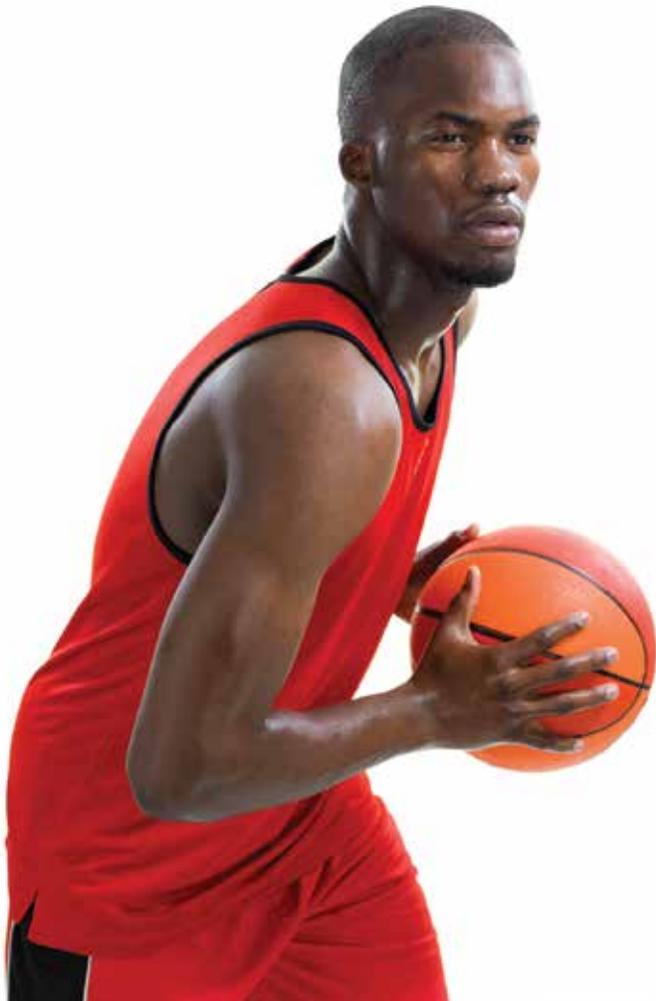
## Conclusion

Multiple recent epidemiologic studies on sports-related concussions show an increasing incidence at all ages compared to previous data, which is likely related to improved diagnostic ability. These substantial numbers and our improved understanding of the short- and long-term consequences demonstrate the high burden of disease. Physicians, athletic trainers, coaches, and parents need to be aware of the signs and symptoms of concussions and remove any athlete with a possible concussion from play immediately.

There is also an increasing amount of literature to suggest that simply allowing return to play when the athlete is no longer symptomatic is not appropriate as they often continue to have subtle cognitive changes. Utilization of neurocognitive tests such as the ImPACT test should be employed to certify a true return to baseline prior to allowing return to play. Despite the recent surge in concussion-related literature there remain many unknown factors. Specifically, additional research is still required in order to better define long-term consequences as well as identify whether a relationship exists between concussions and CTE. This is a critical area of research and one that should be highly supported and followed closely by all sports medicine practitioners.

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## Support Youth Sports Injury Research and Education

Our outreach to parents, coaches, and young athletes continues as we aim to educate the youth sports community on overuse and traumatic injuries, and how to prevent them. Our success in continuing these programs, as well as supporting new research surrounding youth sports safety, benefits greatly from the financial support of organizations and individuals. This holiday season, consider a one-time gift to STOP Sports Injuries and be a part of the movement to keep kids in the game for life.

Learn more at [www.stopsportsinjuries.org/STOP/Get\\_Involved/Donate.aspx](http://www.stopsportsinjuries.org/STOP/Get_Involved/Donate.aspx).

## Sports Safety Tips Made Easy

Sharing sports injury prevention information this winter season is easier than ever. Our site offers visitors a fresh, easy-to-navigate, and mobile-friendly environment while viewing injury prevention materials—which have also been expanded. Visit [www.STOPSportsInjuries.org](http://www.STOPSportsInjuries.org) to see all the new site has to offer, and be sure to share with your patients!

## Come Grow with STOP Sports Injuries

Did you know more than 1,000 organizations currently collaborate with STOP Sports Injuries? The program was founded on the idea that grassroots efforts could help spread awareness and information about preventing overuse and trauma injuries in young athletes. This number includes sports medicine practices, which hold local events and share our injury prevention information with patients. If you have not already signed up, be sure to visit [www.STOPSportsInjuries.org](http://www.STOPSportsInjuries.org) and click “Get Involved.”



## Welcome to Our New Collaborating Organizations!

Thank you to the newest STOP Sports Injuries collaborating organizations for their commitment to keeping young athletes safe.

### SPORTS MEDICINE PRACTICES

**American Medical Center Sports Medicine Institute Shanghai**  
Shanghai, China

**Coastal Orthopaedics**  
Norwalk, Connecticut

**Instituto SADE Queretaro**  
Queretaro, Mexico

**National Sports Medicine Institute**  
Lansdowne, Virginia

**Nicali Sports Medicine & Associates**  
Pasadena, California

**ReBalance Physiotherapy**  
Dublin, Ireland

**South County Physical Therapy & Rehabilitation Center, Inc.**  
Port Arthur, Texas

**Southern Orthopedic Specialist Rehab Center**  
Panama City, Florida

**Sports Rehabilitation Unlimited**  
Middleton, Massachusetts

**The Rehab Doctors**  
Rapid City, South Dakota

### SPORTS AND RECREATION ORGANIZATIONS

**Blue Dolphins Basketball**  
St. Louis, Missouri

**DCIAA Sports Medicine**  
Washington, DC

**Sewickley En Pointe**  
Sewickley, Pennsylvania

## Young Investigators Urged to Apply for USBJI Career Development and Grant Mentoring Program

The United States Bone and Joint Initiative (USBJI) and Bone and Joint Canada are dedicated to increasing research of musculoskeletal diseases. The USBJI has developed a grant mentoring program to provide early-career investigators an opportunity to work with experienced researchers in our field to assist them in securing funding and other survival skills required for pursuing an academic career.

This program is open to promising junior faculty, senior fellows, or post-doctoral researchers nominated by their department or division chairs. It is also open to senior fellows or residents who are doing research and have a faculty appointment in place or confirmed. Basic and clinical investigators, without or

with training awards (including K awards), are invited to apply. Investigators selected to take part in the program attend two workshops, 12–18 months apart, and work with faculty between workshops to develop their grant applications. The next workshop is scheduled to take place April 7–9, 2017, in Rosemont, Illinois (Chicago). The unique aspect of this program is the opportunity for attendees to maintain a relationship with a mentor until their application is funded.

Deadline to apply for the Spring 2017 Workshop is January 15, 2017. To apply for this program, please visit [www.usbji.org/programs/yii/call-for-applications](http://www.usbji.org/programs/yii/call-for-applications).

## Patellofemoral Workshop Brings Together Experts

In September, AOSSM and the Patellofemoral Foundation invited sixteen patellofemoral experts to participate in a think-tank workshop on Patellofemoral Instability. The workshop was led by Donald Fithian, MD, and William R. Post, MD. This group of patellofemoral thought-leaders discussed the current state of evidence for patellofemoral instability, as well as identifying future research and education. Prior to meeting face-to-face, the workshop participants were surveyed regarding patellar instability in order to assess areas of consensus and identify gaps in evidence.

Several participants were invited to present current research on topics to highlight areas where consensus was not evident and assist in the formation of consensus on more controversial topics. Ultimately, the group agreed on concepts for several key areas, including factors contributing to instability, patient evaluation, imaging, classification, surgical treatment, and rehabilitation. The afternoon session was entirely devoted to discussing and developing future directions for research and education. Several novel study concepts were formulated and a strong unified vision for managing patients with patellofemoral instability was realized.

*AOSSM gratefully acknowledges Ferring Pharmaceuticals for an educational grant in support of this workshop.*



## Clinician Scholar Career Development Program

The Clinician Scholar Career Development Program (CSCDP) is a joint effort between AAOS, OREF, and OTA. This annual program brings together experienced orthopaedic clinician scientists with interested PGY2-PGY5 residents, fellows, and junior faculty through year three surgeons. Through a one-and-a-half-day workshop participants interact with leading clinician scientists to learn about writing grants for government and private organizations, collaborating with scientists, training as a clinician scientist, and mentoring.

AOSSM will again sponsor a member to attend the CSCDP in the fall of 2017. Application information for the 2017 CSCDP will be available at [www.aaos.org/research/opportunities/cscdp](http://www.aaos.org/research/opportunities/cscdp) in January 2017. AOSSM encourages surgeons who are pursuing a career in orthopaedic sports medicine, have matched to a sports fellowship, and are interested in pursuing an academic career to apply. Interested applicants should ensure that their application indicates their membership in AOSSM.

For more information about the CSCDP, please contact Kevin Boyer, AOSSM Director of Research at [kevin@aossm.org](mailto:kevin@aossm.org).

## JOIN AN AOSSM COMMITTEE

Committee applications are now available at [www.sportsmed.org](http://www.sportsmed.org). Committees make a vital contribution to the Society and your participation is encouraged. Deadline for submission of applications is February 15, 2017. You will be notified regarding your participation by May 31. For questions contact [Camille@aossm.org](mailto:Camille@aossm.org).



### Nominating Committee Selected

Congratulations to new AOSSM Nominating Committee members:

- Robert A. Arciero, MD, Chair
- Champ L. Baker, Jr., MD, Member at Large
- Brian J. Cole, MD, MBA, Member at Large
- John D. Kelly, IV, MD, Member at Large
- Claude T. Moorman, III, MD, Member at Large
- Allen F. Anderson, MD, Immediate Past President, Ex-Officio



## End of Year Giving to AOSSM Research

Although research is time-intensive, and requires significant financial resources, it's integral to the continued growth and integrity of our sports medicine profession. During this season of giving, please consider a donation to AOSSM which allows you to invest in upcoming research that positively impacts your practice and the lives of those you treat.

Your donation, along with that of your colleagues, allows the Society to support rigorous science to broaden the base of orthopaedic sports medicine knowledge, including the Research Mentoring Program, Young Investigator Grants, Sandy Kirkley Clinical Outcome Research Grants, and HA Predictor Study.

**Be a part of our team. Step up to make an investment this year, visit [www.sportsmed.org](http://www.sportsmed.org) and click on the Support AOSSM link in the top right corner. Thanks for your support!**

### Submit Your Mentor's Name for the AOSSM Hall of Fame

Do you have a mentor or know of another outstanding member of the sports medicine community who should be part of the AOSSM Hall of Fame? Applications to submit a nomination will be available in late October at [www.sportsmed.org](http://www.sportsmed.org). The Hall of Fame honors members of the orthopaedic sports medicine community who have contributed significantly to the specialty and set themselves apart. Being inducted into the Hall of Fame is one of the highest honors given to a Society member. Deadline for submissions is January 25, 2017. Questions? Contact [Camille@aossm.org](mailto:Camille@aossm.org).

### Give Your Patients the Gift of *In Motion*

*In Motion* is available to be personalized with your own practice name and logo. For just \$300, you will receive four personalized issues (Spring, Summer, Fall, Winter) and the high and low resolution PDFs to send to a patient's inbox, post on your website, or print out and place in your waiting room. For more information, contact Lisa Weisenberger, Director of Communications at [lisa@aossm.org](mailto:lisa@aossm.org).



## Be a Part of the Sports Medicine Conversation

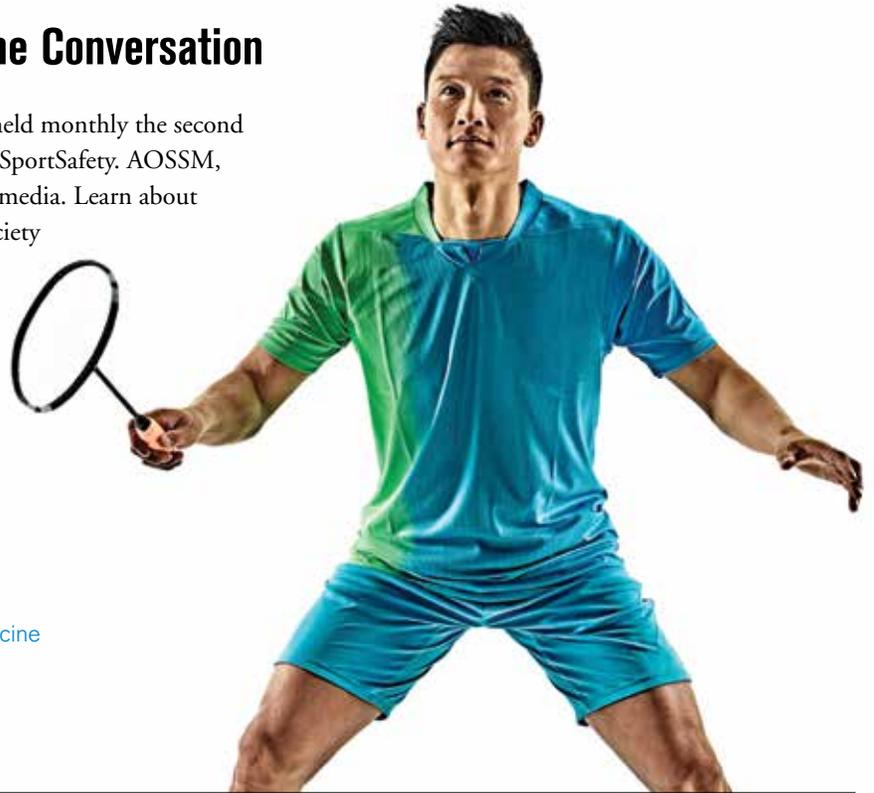
Join our youth sports injury prevention TweetChats held monthly the second Wednesday of the month at 9 PM ET/8 PM CT at #SportSafety. AOSSM, *AJSM*, *Sports Health*, and *OJSM* are also all on social media. Learn about the latest news and articles and stay up to date on Society happenings and deadlines.

### Twitter

[www.Twitter.com/AOSSM\\_SportsMed](http://www.Twitter.com/AOSSM_SportsMed)  
[www.Twitter.com/Sports\\_Health](http://www.Twitter.com/Sports_Health)  
[www.Twitter.com/SportSafety](http://www.Twitter.com/SportSafety)  
[www.Twitter.com/AJSM\\_SportsMed](http://www.Twitter.com/AJSM_SportsMed)  
[www.Twitter.com/OJSM\\_SportsMed](http://www.Twitter.com/OJSM_SportsMed)

### Facebook

[www.Facebook.com/AOSSM](http://www.Facebook.com/AOSSM)  
[www.Facebook.com/American-Journal-of-Sports-Medicine](http://www.Facebook.com/American-Journal-of-Sports-Medicine)  
[www.Facebook.com/SportsHealthJournal](http://www.Facebook.com/SportsHealthJournal)  
[www.Facebook.com/STOPSportsInjuries](http://www.Facebook.com/STOPSportsInjuries)  
[www.Facebook.com/TheOJSM](http://www.Facebook.com/TheOJSM)



## NAMES IN THE NEWS

### Fu Honored for 30 Years of Service

Congratulations to Past President, **Freddie Fu, MD**, for 30 years of service as the Head Team Physician at the University of Pittsburgh. Dr. Fu was honored for his service during the third quarter of a recent Pitt football game with an on-field video tribute. Dr. Fu was also recently given an honorary membership to SIGASCOT (Italian Society of Arthroscopy Knee Cartilage Sport Orthopaedic Technologies), in recognition of his outstanding contribution in orthopaedics clinical practice and research.



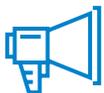
### Martin Named Executive Medical Director of American Board of Orthopaedic Surgery

The Board of Directors of the American Board of Orthopaedic Surgery (ABOS) recently selected, AOSSM Member, **David F. Martin, MD**, as the Executive Medical Director of the ABOS. Martin, who started in his new position on October 1, has served as the Interim Executive Director of the ABOS since the retirement of Shepard R. Hurwitz, MD, earlier this year. He served on the ABOS Board of Directors from 2005–2015 and was President of the Board in 2011–2012.

### In Memoriam

The following members passed away in 2016:

William C. Allen, MD  
Jun Chino, MD  
D. Kay Clawson, MD  
William T. Hardaker, Jr., MD  
J. Harold LaBriola, MD  
Joseph J. Marotta, MD  
Robert C. Meisterling, MD  
Jacquelin Perry, MD  
Clarke Russ, MD  
Joseph P. Zawadsky, MD



### Got News We Could Use? *Sports Medicine Update* Wants to Hear from You!

Have you received a prestigious award recently? A new academic appointment? Been named a team physician? AOSSM wants to hear from you! *Sports Medicine Update* welcomes all members' news items. Send information to Lisa Weisenberger, Director of Communications, at [lisa@aossm.org](mailto:lisa@aossm.org). High resolution (300 dpi) photos are always welcomed.



## Sports Licensure Clarity Act Update

HR 921, the Sports Licensure Clarity Act passed out of the House of Representatives on September 12, 2016. The bill would ensure that a physician travelling with a team across state lines would be covered by his/her medical liability insurance. The Senate companion, S 689, has unfortunately been held up. The Chairman of the Committee of jurisdiction, the Health, Education, Labor and Pensions Committee, Lamar Alexander (R-TN) has expressed concern about the bill arguing that the issue should be handled by the states. AAOS and AOSSM have made significant efforts to engage Chairman Alexander and other senators on the issue. AAOS sent a letter to the full AAOS membership and had 200 engagements. Several members in Tennessee have reached out to Alexander, including Dr. Alan Anderson and Dr. Fred Azar. Our argument is that while many

states are dealing with the issue, there are a few hold outs, and this type of protection is needed for everyone. At this point, with the tight lame duck schedule, the prospects are slim for the 114th Congress.

## Controlled Substances Act Progress

HR 3014, the Controlled Substances Transportation Act would allow a physician to transport a controlled substance when travelling with a team or travelling to a disaster area. Past AOSSM President Dr. Alan Anderson testified before the House Energy and Commerce Health Subcommittee on the issue in the spring. The legislation passed out of the Energy and Commerce Committee. The Judiciary Committee has joint jurisdiction and several AOSSM physicians met with the Chairman and Ranking Member in Washington to advocate for the proposal. AOSSM collected information to provide to the Judiciary Committee, who are amenable to considering the bill. The problem is that the Committee hasn't found an appropriate vehicle for this legislation. The schedule is very tight for Congress during lame duck and they will not get much done beyond funding for next year. That said, it's a good start and can be pursued next Congress.

## House Passes Bill to Improve Emergency Medical Services

On November 14, 2016, the House of Representatives passed a bipartisan bill by voice vote that would provide a statutory framework to allow emergency medical services (EMS) agencies, professionals, and medical directors to fulfill their mission to save lives and alleviate pain while also enabling the Drug Enforcement Administration (DEA) to continue with appropriate oversight to prevent drug

diversion. H.R. 4365, the Protecting Patient Access to Emergency Medications Act, was introduced by Reps. Richard Hudson (R-NC) and G. K. Butterfield (D-NC) and was reported out of the Energy and Commerce Committee earlier this year.

## ICYMI: Hospital Outpatient Prospective Payment System Final Rule Released

The U.S. Centers for Medicare & Medicaid Services (CMS) finalized payment rates and policy changes for 2017 under the Ambulatory Surgical Center (ASC) Payment System and the Hospital Outpatient Prospective Payment System (OPPS). The agency estimates that the updates will increase ASC rates by 1.9 percent and OPPS payments by 1.7 percent during 2017.

## State Corner: 2016 Elections Impact on State Government

The 2016 election brought a notable shift in state politics with Republicans increasing their control of legislatures. In 24 states, Republicans control both the state legislature and the governorship meaning they will have broad range authority to change their health care systems. With 32 Republican controlled state legislatures and 33 governors, health care will be shaped in most states by the GOP.

While the Affordable Care Act (ACA) is scrutinized by President-Elect Donald Trump, state legislatures are in a strong position to deliver on Republican-led reforms. Since the passage of the ACA, few Republican-controlled states have accepted federal funding for Medicaid expansion or created their own state-controlled market exchanges. With uncertainty from the federal government, advocates may discontinue or temporarily halt their Medicaid expansion campaigns in Republican controlled states.

## AOSSM Leaders Participate in the 6th National Congress of the Italian Society of Sports Traumatology, Arthroscopy and Knee Surgery

AOSSM President Annunziato Amendola, MD, President-Elect Charles Bush-Joseph, MD, and Fellowship Committee member Marc Safran, MD, represented the Society as faculty at the SIGASCOT 6th National Congress, September 28–30, 2016, in Florence, Italy. Each presented a keynote lecture along with participating in instructional courses and symposia.

SIGASCOT's mission is to promote education, communication, and dissemination of knowledge in knee surgery, arthroscopy, sports medicine, cartilage, and new orthopedic technologies through its scientific committees with the National Congress serving as their marquee event.

Thank you to Drs. Amendola, Bush-Joseph, and Safran for not only helping SIGASCOT to meet their mission but also for their effort representing AOSSM at this international event!

For more information, visit [www.sigascot.com](http://www.sigascot.com).



L-R: Charles Bush-Joseph, MD, Annunziato Amendola, MD, David DeJour, MD, Stefano Zaffagnini, MD, and Marc Safran, MD

## SURGICAL SKILLS COURSE

### The Athlete's Hip: New Trends, Evaluation and Surgical Management

February 10–12, 2017

Orthopaedic Learning Center  
Rosemont, IL

Course Chairs, **Brian Busconi MD** and **Marc Safran MD** have developed a course to provide you with the latest trends and research in hip surgical management and practice.

With nine hours of intensive, surgical skills lab instruction along with informative didactic presentations, you will gain a greater comprehension of normal and pathological states of the athlete's hip.

Registration deadline is  
January 20, 2017

For a complete agenda  
or to register, visit  
[www.sportsmed.org](http://www.sportsmed.org).



**AOSSM**  
Surgical Skills Courses

Orthopaedic Learning Center, Rosemont, IL



The American Orthopaedic  
Society for Sports Medicine



## Get Your Passport Ready and Meet AOSSM in Toronto

Make your plans now to join us at the AOSSM 2017 Annual Meeting, July 20–23, 2017, in beautiful, downtown Toronto, Canada, home to the Hockey Hall of Fame and just a short trip from Niagara Falls. In this unique, urban setting, you will have access to the top national and international experts in sports medicine who will provide you with the latest in research, advancements and standards-of-care to implement in your practice and succeed at an unparalleled level.

To this end, Program Chair, Brian Wolf, MD, and his committee are constructing an unforgettable educational experience with some new and exciting learning tools and topics, including:

- Live surgery featuring knee and shoulder procedures
- Eighteen breakouts within the sessions to really understand topics in-depth—more than ever before!
- Three, video-based sessions featuring surgical techniques for the shoulder, hip, and knee
- Three team physician sessions focused on foot/ankle and hand, sideline management and biologics in the athlete
- Expanded sessions on the Business of Sports Medicine

- More round table discussions, including meniscus repair, large cuff tear, cartilage defect revision ACL, Patellofemoral, hip—FAI, hip—Not FAI, revision shoulder, PCL/MLKI, pediatric, ACL, shoulder instability controversies, throwers elbow, failed cuff, osteotomy
- Saturday afternoon instructional courses
- Research workshop on sports specialization and return to play

If you've never been to Toronto or even if you have, you are in for a Canadian adventure with amazing sites, culture and food, including the Royal Ontario Museum, Toronto Zoo, CN Tower, Distillery District, Toronto Eaton Centre, and Casa Loma—Toronto's very own castle, just to name a few. Our Saturday, family-friendly event

will be held at the Hockey Hall of Fame. You won't want to miss this opportunity to network with your colleagues and get your picture taken with the famous Stanley Cup! Stay tuned to the next issue of *Sports Medicine Update* when we will go in-depth on some of the exciting activities in and around Toronto. Questions? Send us an e-mail at [info@aossm.org](mailto:info@aossm.org).

### HOUSING

Housing is now open. Visit [www.sportsmed.org](http://www.sportsmed.org) to reserve your spot at the best sports medicine event of the year! Registration and preliminary program details will be available in early March.



## IMPORTANT TRAVEL INFORMATION



### Passports and Visa

As a reminder, the United States Department of State and Homeland Security's announcement of the Western Hemisphere Travel Initiative states that all U.S. citizens, Canadians, citizens of the British Overseas Territory of Bermuda, and citizens of Mexico must obtain a passport or another accepted secure document to enter or re-enter the United States.

Children 15 years of age and under are now required to show proof of citizenship. They are not required to show photo ID. If you are traveling with children, you should carry identification for each child. Divorced parents who share custody of their children should carry copies of the legal custody documents.

In addition, your current passport must not have an expiration date within six months of July dates of travel. **Check your expiration date now and renew immediately, if necessary.** For more information on how to obtain your travel documents and to review the requirements visit <https://travel.state.gov/content/passports/en/passports.html>.

Citizens of certain countries and territories need a visa to visit Canada. Others need an Electronic Travel Authorization (eTA). For more information on visa requirements, visit <http://www.cic.gc.ca/english/visit/eta.asp>. Should you require a letter of invitation in order to attend the meeting and obtain a visa, contact AOSSM at [aossm@aossm.org](mailto:aossm@aossm.org).

### Airports

**Toronto Pearson International Airport (YYZ)**  
(approximately 16 miles)

This airport is served by more than 75 airlines.

**Billy Bishop Toronto City Airport (YTZ)**  
(approximately 2 miles)

This airport is served by Air Canada and Porter Airlines.



### Ground Transportation

#### Union Pearson (UP) Express

The UP Express is a dedicated express rail service connecting Union Station to Toronto Pearson International Airport, departing every 15 minutes. Fares vary depending on your destination and type of pass purchased. The ride is approximately 25 minutes from the airport to Union Station which is located between the Fairmont Hotel and Convention Centre. Visit [UPEXpress.com](http://UPEXpress.com) for ticketing options.

#### Taxi Service

From each airport to the Convention Centre and AOSSM designated hotels:

- Pearson International Airport: \$50–\$70
- Billy Bishop City Airport: \$10–\$12
- Uber is also available in Toronto.



### Canadian Currency

All of Canada uses the Canadian Dollar (CAD). The Canadian dollar's value floats against that of all other major currencies. U.S. dollars are accepted in most Toronto establishments, although you will receive change in Canadian funds and exchange rates will vary from merchant to merchant. For up-to-date exchange rates visit [www.xe.com/currencyconverter](http://www.xe.com/currencyconverter).



### International Phone Use

Before traveling, we encourage you to contact your mobile phone provider to learn about Canadian call fees and to determine what international phone packages are available to you. Use Wi-Fi whenever possible while in Canada. Your phone will automatically use Wi-Fi for all its Internet needs if you are connected to a network, so waiting to do online tasks until you are connected to Wi-Fi can save a lot of data.



# UPCOMING MEETINGS & COURSES

For information and to register, visit [www.sportsmed.org](http://www.sportsmed.org).



## **The Athlete's Hip: New Trends, Evaluation and Surgical Management**

(REGISTRATION NOW OPEN)

February 10-12, 2017  
Rosemont, Illinois

## **18th Annual AAOS/AOSSM Sports Medicine Course**

(REGISTRATION NOW OPEN, VISIT [www.aaos.org](http://www.aaos.org))

February 8-12, 2017  
Steamboat Springs, Colorado

## **Specialty Day**

(REGISTRATION NOW OPEN, VISIT [www.aaos.org](http://www.aaos.org))

March 18, 2017  
San Diego, California

## **AOSSM Annual Meeting**

(HOUSING NOW OPEN)

July 20-23, 2017  
Toronto, Canada

## **AOSSM/AAOS Orthopaedic Sports Medicine Review Course**

August 11-13, 2017  
Chicago, Illinois

## **The Cutting Edge 2017: Arthroscopic and Open Shoulder Techniques in the Athlete's Shoulder**

October 13-14, 2017  
Rosemont, Illinois

# The Perfect Mix

Zimmer Biomet has combined with Cayenne Medical to offer a truly innovative portfolio of sports medicine solutions. From early intervention and biologics, soft tissue fixation from the shoulder to the foot and ankle, and a full lineup of allograft solutions, Zimmer Biomet and Cayenne are the **perfect mix**.

To learn more about the Zimmer Biomet Sports Medicine range, visit [www.cayennemedical.com](http://www.cayennemedical.com)

## Quattro® Link Knotless Anchor

This vented PEEK-OPTIMA® design provides a unique suture eyelet to allow surgeon control in tensioning.



## SureLock® All Suture Anchor

An innovative mechanical deployment method designed to keep the creep out of your all-suture fixation.



## Quattro® GT Suture Passer

Smooth and consistent passing through self-retrieving and non-capturing top jaw options.



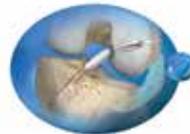
## JuggerKnot® Soft Anchor

The original and most comprehensive all-suture anchor system.



## ToggleLoc™ Device with ZipLoop™ Technology

The first-to-market adjustable cortical fixation device.



## AperFix® System with New AFX™ Femoral Implant\* and AperFix® II Tibial Sheath and Screw

A 360° rigid, intra-tunnel fixation and active, circumferential graft compression at aperture for a short bone-tendon-bone like construct.



## SwitchCut™ Reaming System

The only self flipping retrograde reamer.



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**SPORTS MEDICINE UPDATE**

AOSSM

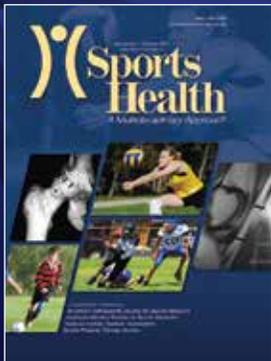
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Rosemont, IL 60018



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6 issues



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**[www.sportsmed.org/AOSSMIMIS/SHGift](http://www.sportsmed.org/AOSSMIMIS/SHGift)**

and complete the subscription form providing the recipient's mailing information and e-mail address.

**30% off the list price**



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