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FALL 2017

CHEERLEADING INJURIES

**ANNUAL
MEETING
RECAP**

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Importance
of Case Lists
for MOC**

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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.

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FROM THE PRESIDENT

Keeping a steady hand on the tiller

It is an honor to be AOSSM's 46th president! I am humbled to follow in the footsteps of Ned Amendola who so capably and passionately led the Society during the past 12 months. After a successful year and Annual Meeting in Toronto, we now return to our daily routines and focus on the issues and initiatives of the next year. And, as we all know "the only thing constant in life is change," so we need to be continually engaged and sensitized to sea change while being solidly grounded in our mission, core values, and strategic priorities.

We are the leaders in orthopaedic sports medicine and team physician education, and we are committed to leading from a position of our strength. That strength was demonstrated in Toronto with record attendance, abstracts and Instructional Course (IC) proposal submissions—not to mention live surgery, video sessions, and an inspiring message from Coach K via satellite! Our mission is always to produce education that is evidence-based, state-of-the-art, timely, relevant, and meets the high standards of our members, the American Board of Orthopaedic Surgery (ABOS), and the Accreditation Council for Graduate Medical Education (ACGME). To this end, we have several exciting updates from recent courses highlighted in this issue of *SMU*, including the outstanding sold-out Fellows Course, Board Review, collaborations with ISAKOS, and not to mention our upcoming Baseball, Surgical Skills, and ATPC courses.

In the moment, all is well with our Society. However, we also recognize and understand that the AAOS is moving forward with several initiatives that could impact us as a Society. As sports medicine professionals who are part of a daily multi-disciplinary endeavor, it is always our desire to work within our orthopaedic community and ensure that AOSSM's members have a meaningful voice and impact.

AAOS is moving to a portfolio-based education model and specialty tracks at their Annual Meeting along with developing and deploying their own fellowship accreditation pathway exclusive of ACGME accreditation. AOSSM's approach to these changes is multi-pronged. We will continue to manage, grow, and safeguard our own enterprise while still being a team player within the orthopaedic community. *The AOSSM Board of Directors is committed to the ACGME accreditation pathway for Fellowships.*

The Society has a very open and receptive line of communication with ACGME. They have listened to our concerns regarding Fellowship accreditation as evidenced by the fact that stand-alone Fellowship Programs are once again allowed to become ACGME accredited. While encouraged by this change, we also understand there are several other challenges associated with ACGME accreditation. Rest assured, we are engaged in discussions and committed to working together with other organizations, including AANA, to address these issues. With a unified voice, we hope to have an even greater impact on making positive and proactive changes to ACGME fellowship requirements. Stay tuned. There is more to come on this front in the coming year.

Additionally, one year ago, AAOS also established a project team to explore alternative pathways to Maintenance of Certification (MOC). This past summer, two articles appeared in *AAOS Now* outlining what the AAOS believes to be challenges within the MOC process. In short, the AAOS stated that it will continue to advocate on behalf of their members to ensure that the MOC process is "restructured to be fair and meaningful." ABOS also weighed in on the MOC issues and outlined its priorities to minimizing the expense and burden on Diplomates. The ABOS article further delineated the significant improvements and changes made so far to simplify the process. *The AOSSM Board of Directors is committed to working with the ABOS and firmly believes that certification remains the purview of ABOS.*

Within all of these activities and issues, it is crucial that we as a Society maintain a clear voice and work towards a consensus that benefits all of us with the least amount of financial and mission impact. At the end of the day, our goal for our education and research efforts is to improve our patient's care at every level and keep them active for life. Working together, we can make that happen. I look forward to the upcoming year keeping a steady hand on the tiller as your President.

Charles Bush-Joseph, MD



CHEERLEADING INJURIES

GRANT JONES, MD, MICHAEL KHAZZAM, MD

Cheerleading originated in 1898, when a young man led cheers at a collegiate football game in Minnesota.¹⁻⁴ Cheerleading continues to grow in both popularity as well as technical complexity and is now considered a contact sport. This rapidly growing sport combines elite level gymnastic tumbling, dance, as well as complex high-flying stunts. The cheerleading team includes several groups, including “flyers” who are lifted or tossed into the air by their “bases” while “spotters” stand close by to prevent falls.⁴ Participation ranges from sideline support of another sporting event (performance) to year-round “all star” or competitive cheerleading. This combination of activities with increasing complexity of the routines and stunts puts these athletes at high risk for injury.



Epidemiology of Injuries

As of 2012, only 29 state high school athletic associations recognized cheerleading as a sport and the National Collegiate Athletic Association (NCAA) did not include competitive cheerleading as a sponsored sport.² As a result, the injuries that occur in cheerleading are often not reported in sports injury surveillance systems of state high school athletic associations or the NCAA. So, up until some more recently published epidemiology studies, there has been a relative lack of data on injuries.

With the increasing popularity of this sport, the injury rate also continues to rise with an annual cheerleading related injury rate increase of 189% being shown from 2001 to 2012.^{2,3,5}

The overall injury rate is relatively low compared to other sports, but the injuries tend to be more severe.⁸⁻¹¹ Data collected by the longitudinal, National High School Sports-Related Injury Surveillance Study from 2009–2010 through 2013–2014 ranked cheerleading 18th out of 22 sports in terms of overall injury rate.⁹ Despite the low injury rate, this study revealed that cheerleading had the second highest proportion of injuries resulting in time lost of at least 3 weeks. Also, cheerleading has been shown to have a disproportionately high rate of catastrophic injuries (over 50% of all catastrophic injuries in high school girl athletes), including skull fractures, death, cervical fractures or major ligamentous injury, spinal cord contusions, paralysis, and severe head injuries resulting in permanent brain injury, compared to other sports.^{2,8-12}

Injury rates are higher in the older age groups due to the increased complexity of the routines and more height-based stunts.^{1,10,13,14} College cheerleaders have the highest injury rate (1.2 to 2.4 injuries per 1000 athlete exposure), followed by elementary school, high school, all-star, middle school, and recreational cheerleaders.¹⁴⁻¹⁶ In a retrospective analysis

of the NEISS emergency department database, Shields and Smith¹³ reported that there were more emergency room visits for cheerleaders in the 12–17 year old age group than in the 6–11 year old age group. More catastrophic injuries also occur in the older age groups. Boden et al.¹⁰ noted that the rate of catastrophic injury per 100,000 cheerleaders was five times higher at the collegiate level than high school level.

Mechanism of Injury

The leading mechanism of injury is falls (29.4%), with falls being most likely to lead to hospitalization than other mechanisms.³ Overall, stunting causes 42–60% of cheerleading injuries and 96% of concussions and closed-head injuries.^{6,18,19} More specifically, pyramid stunts where there is potential for a contact injury between cheerleaders accounts for the majority of head/neck injuries (50–66%)^{7,8,15,17} Jacobson et al.⁵ reviewed the National Electronic Injury Surveillance System from 2002 to 2007 and found the most common mechanisms of injury to be collision 29.3%, stunting 19.8%, tumbling 11.3%, and tossing 2.5%. Naiyer et al.³ examined injury rates over a 23-year period also using a national electronic database and found significant increases as well. Boden et al.¹⁰ reported that the most common stunts being performed when a catastrophic injury occurred were a pyramid and basket toss. Less cushioned and wet surfaces and increased fall heights (11 feet) have also been noted to predispose to catastrophic injury.^{10,14}

Another common mechanism of injury is basing or spotting. Two studies by Shields and Smith^{1,14} reported that the basing or spotting was the most common mechanism of injury. Currie et al.⁹ noted that the most common cheerleaders injured were the bases. Interestingly, the bases at the bottom of the pyramids can be at greater risk than the ones held aloft or tossed in the air.⁵ These studies indicate

that bases are at particular risk of injury from contact with other athletes during stunts. Also, basing or spotting is more likely to result in lower back sprain/strains than any other mechanism.¹

Finally, tumbling accounts for 14–26% of cheerleading injuries.^{14,17} Shields and Smith¹⁴ noted that tumbling was the most common mechanism of injury for strictly competitive All-Star teams. Tumbling is also the common mechanism for sprain/strains.

Injuries

Sprains/strains are, by far, the most common types of injuries sustained in cheerleading, involving up to 53% of all injuries, followed by abrasions/contusions/hematomas (13–18%), fractures/dislocations (10–16%), lacerations/punctures (4%), and concussion/head injuries (3.5–4%).^{2,3,13,14} Common injury patterns range from ligament and muscle sprains/strains to fractures. Injuries to the cervical spine, lumbar spine, and head are less common, but can be more serious type of injury.

Overall in all age groups, sprains/strains occur more often in the lower extremities than upper extremities.^{3,13,14} However, when viewing specific age groups, Shields and Smith¹³ found that younger cheerleaders (6- to 11-year age group) are more likely to sustain upper extremity injuries and less likely to sustain lower extremity injuries than older cheerleaders (12- to 17-year age group). Similarly, Naiyer et al.³ noted that upper extremity injuries (42.7% of injuries) were more common in younger athletes. The most commonly injured joints are ankles (44.9% of all injuries) followed by wrists/hands (19.3%).^{1,6} Most injuries to the ankle involve the lateral ligaments and result from injuries with the ankle in a plantar-flexed position.¹

Fractures or dislocations are 1.6 times more likely to occur in younger cheerleaders (5 to 11 year olds) than older cheerleaders (12 to 18 year olds) while older cheerleaders are more likely

to sustain a strain or sprain than younger cheerleaders.¹³ Jacobson et al.⁵ reported that 61.5% of all cheerleading related fractures presenting to emergency departments involve the upper extremity and that injuries to the upper extremity account for 58.5% of hospital admissions. This study also noted that 93.5% of the upper extremity fractures were treated and discharged from emergency departments, indicating that most of these injuries were stable with a low risk of complication.⁵ Those cheerleaders who were admitted more commonly sustained supracondylar humerus fractures or both bone forearm fractures, which are injuries with a higher risk of complication and which more commonly require surgical intervention.⁵

As discussed above, cheerleading produces a disproportionate share of direct catastrophic injuries. The National Center for Catastrophic Sports Injury (NCCSIR) reported that cheerleading accounted for 65% of direct catastrophic injuries to all high school female sports participants and 70.8% of catastrophic injuries to female college athletes over a 17-year period.¹¹

Cervical Spine

There are multiple activities performed during cheerleading that could result in cervical spine injuries, including tumbling, stunting, baskets, and pyramid. At times, these athletes can be between 6 and 20 feet in the air either being thrown, tumbling, or held up. All of which, are at risk, if done incorrectly, of landing in such a way to result in cervical spine fracture/ligamentous injury, as well as spinal cord injury.

Additionally, Boden et al.¹⁰ found that there was a high association with concomitant head injury. This study reported 28% incidence of cervical fracture or ligament injury and 10% incidence of spinal cord contusion. The spinal cord injuries resulted in both complete and incomplete injuries at C2, C3, C5, and C6 causing partial or complete quadriplegia with significant



devastating health and emotional impact. All of these injuries were a result of the cheerleader making contact with a hard surface such as the ground. They also reported that the rate of catastrophic injuries to collegiate cheerleaders was five times higher than the injury to high school cheerleaders and a majority of the injuries occurred in the winter months.¹⁰

Head Injuries

As with other contact sports, cheerleaders are at significant risk for concussion. Similar to cervical spine injury risk, these injuries most commonly are a result of a fall from height. Several studies indicate that the aerial stunts put these athletes at a not insignificant risk for concussion.^{2-6,9,17,18} Risk of cheerleading related concussion has increased >200% over the past 10 years.³

Concussion rates in cheerleading have been reported to be relatively low (4–6% of cheerleading injuries) in the past compared to other injuries and compared to concussion rates in other sports.^{13,14,17,20,21} However, in a recent study, Currie et al.⁹ found that concussions were the most common cheerleading

injury, accounting for 31.1% of injuries. Similarly, Naiyer et al.³ reported that the number and rate of cheerleading related concussions/closed head injuries increased significantly by 290% from 2001 to 2012. This may be a reflection of the increasing complexity of cheerleading stunts and routines over the years. It also could be secondary to the increased awareness of and heightened attention to concussions as the concussion rate has increased in other sports as well over a similar time period.^{3,22} Although the overall concussion rates in cheerleading are significantly lower than in other female sports combined, there is a much higher rate of concussions in practice compared to other sports, which could be a function of the athlete trying newer, more dangerous stunts or a team trying newer, more complex routines during practice.⁹

Risk Factors for Injury/Injury Prevention

The growing increase in complexity has led to the development of safety organizations to protect these athletes. The American Association of Cheerleading Coaches and Administrators (AACCA), the United States All Star Federation (USASF),



CheerSafe, and the National Federation of State High School Associations (NFHS) are governing bodies that were established to set rules for cheerleading safety to limit risk and help protect athletes at all levels of participation. The American Academy of Pediatrics (AAP) has also made additional safety recommendations.

First, cheerleading should be designated as a sport, so that it is subject to the rules and regulations set forth by sport governing bodies including the NCAA and NFHS.² This will improve access to athletic trainers, appropriate medical care, certified/qualified coaches, better facilities, and an injury surveillance program.² This would also necessitate that the cheerleaders have a pre-participation physical examination and access to appropriate strength and conditioning programs.² Also, cheerleaders should only attempt stunts after they have demonstrated appropriate skill progression and proficiency required by the stunt.² Next coaches, parents, and athletes should have access to an emergency plan for serious injuries, which is formulated by school administrators in conjunction with an athletic trainer and team physician.² If a cheerleader demonstrates signs of a head injury, he or she should be removed from practice or competition and not allowed to participate until there is written clearance from a qualified health care provider.² Finally, cheer competitions should take place in venues, which are compliant with guidelines set forth by the National Cheer Safety Foundation and the AACCA and where there is appropriate medical coverage.²

Several risk factors for cheerleading injuries have been identified. Elevated

BMI, deconditioned athletes, and previous injury have all been associated with increased risk of injury.^{1,3,17} Sprains and strains, in particular ankle sprains, are the most common injuries, so conditioning and training exercises emphasizing balance and coordination and resistance strengthening would be an effective preventive strategy.^{1,3} Also, spotters are at particular risk for low back strains/sprains as they support and catch flyers, so upper body and core strength exercises can be of benefit in this group. Finally, since the greatest risk for sprain/strain is a history of past injury, this could indicate that previous injuries are often underestimated in terms of severity and inadequately rehabilitated with a premature return to training or competition.²³ Therefore, it is important to fully rehabilitate injuries with balance and strengthening exercises before returning to help prevent re-injury.

Care must be taken to assure athletes and coaches have been well trained for the level of difficulty they are attempting to perform. Inadequate supervision either by the absence of a coach or the presence of a coach with low level training and experience has been shown to predispose cheerleaders to injury.¹⁷ Schulz et al.¹⁷ reported that cheerleaders supervised by coaches with the most education, qualifications, and training had a nearly 50% reduction in injury compared to those supervised by coaches with less training. Knowledgeable coaches are paramount to ensure that appropriate techniques are being taught, appropriate strengthening and conditioning is being performed, injuries are being recognized

and treated, and the cheerleading rules and recommendations set forth by national organizations such as the AACCA, CheerSafe, (NFHS), USASF, and AAP are being followed.^{1-3,10} Since falls and spotting are the most common mechanisms of injury, coaches need to especially make sure that proper spotting techniques are being taught and emphasized. The AAP in its cheerleading policy statement recommends that cheerleaders should be supervised by quality qualified coaches who have been trained and certified in proper spotting for gymnastics and partner stunts, safety measures, and basic injury management.

The AAP policy statement also recommends that technical skills such as pyramids, mounts, tosses, and tumbling should not be performed on hard, wet, or uneven surfaces and that pyramids and partner shoulder stunts should only be performed on a spring floor or a landing mat on either a traditional foam floor or grass/turf.²

Pyramids and basket tosses at increased heights both carry a high risk for potential catastrophic injury.¹⁰ Therefore, the NFHS and AACCA made several important rule changes to make the pyramid stunt safer.²⁴ Height restrictions are limited to 2 levels in high school and 2.5 body lengths in college.²⁴ Additionally, it is important that these activities are on safe proper performing surfaces/floor mats, spring floor, which are specifically designed for these activities. Further rules have been mandated for the basket toss, which has been shown to carry the highest risk of injury. Current AACCA rules

Care must be taken to assure athletes and coaches have been well trained for the level of difficulty they are attempting to perform. Inadequate supervision either by the absence of a coach or the presence of a coach with low level training and experience has been shown to predispose cheerleaders to injury.



include that the stunt is limited to four throwers with one of the throwers behind the top person during the toss, as well as the toss must start from the ground. The flyer must also be trained to not allow the head to drop backward out of alignment with their torso or below the horizontal plane of the body. These guidelines further protect the athletes.

Conclusions

Cheerleading is a rapidly growing sport on a national and international level, and cheerleading stunts and routines have become much more complex over the past two decades. As a result, both the number

and severity of injuries have increased. As a response to this, numerous cheerleading associations at every level of competition and participation, have developed improved surveillance systems to track these injuries as well as rules/regulations to improve safety. It is important for sports medicine physicians treating cheerleaders to familiarize themselves with these rules and to help educate coaches, families, and participants on the importance of following these guidelines. Finally, it is important for sports medicine physicians and sports medicine organizations to continue to monitor cheerleader injuries and refine the rules and regulations to improve safety.



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Share Why Sports Safety Matters to You

Are you an advocate for preventing injuries in young athletes? Share why keeping kids in the game is important to you—just download and print out our “Sports Safety Matters” sheet, write in your answer, and have someone take a photo of your response. Be sure to post on social media with the #SportsSafety hashtag or send to joe@aossm.org to post directly from the STOP Sports Injuries accounts.

Download available at:

www.stopsportsinjuries.org/STOP/SportsSafety.pdf.

Come Grow with STOP Sports Injuries

Did you know more than 1,100 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 more than 800 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 and click “Get Involved” to learn more.



AOSSM Awards Second Annual STOP Sports Injuries Award

Congratulations to Timothy A. McGuine, PhD, who received the STOP Sports Injuries award for his paper, “The Effect of Sport Specialization on Lower Extremity Injury Rates in High School Athletes,” during the 2017 Annual Meeting in Toronto. This award, established in November 2015, recognizes outstanding research presented at the Annual Meeting related to youth sports injury prevention, treatment, or rehabilitation, and is voted on by the STOP Sports Injuries Outreach Committee. McGuine presented his paper in a session focused on youth sports injuries, which highlighted other current research and discussion on this important topic.

Want to have your own research considered for this award? The Society is currently accepting abstracts for the 2018 Annual Meeting in San Diego! All submissions accepted for presentation, and that cover youth sports injury topics, will be considered for next year’s STOP Sports Injuries award. Visit www.sportsmed.org to submit your abstract by the October 2 deadline.

Welcome to Our New Collaborating Organizations!

Thank you to the newest STOP Sports Injuries collaborating organizations for their commitment to keeping young athletes safe. Interested in having your practice or institution listed in the next *SMU*? Head over to www.STOPSportsInjuries.org and click “Join Our Team” to submit an application!

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Looking for the resources from the Annual Meeting or want to check out the agenda for an upcoming meeting such as Baseball or Surgical Skills, or connect with other attendees or exhibitors? AOSSM has you covered in our new app! You can download it for free from your Apple or Droid store today and stay in touch with all things AOSSM. This is not just a single meeting app but will be for all upcoming AOSSM meetings and other Society activities. You will need to log in to the app with your AOSSM credentials once you download it to view materials. Questions? Call the Society at 847/292-4900 or send us an e-mail at info@aossm.org.



Join an AOSSM Committee

Committee applications will be available at www.sportsmed.org in late October. Committees make a vital contribution to the Society and your participation is encouraged. Deadline for submission of applications is February 5, 2018. You will be notified regarding your participation by May 31. Questions? Contact Camille@aossm.org.

Keep Your Membership Up to Date

Dues notices were sent via e-mail on August 1. If you did not receive a notice, please be sure to log in to your MyAOSSM page at www.sportsmed.org to pay before the deadline of January 1, 2018. After this date, your AOSSM benefits, including access to *AJSM* and *Sports Health* will be suspended. If you have questions or need to change your membership status, please e-mail Debbie Czech, Manager, Member Services at debbie@aossm.org.

New Journal Award Collections

Want to read the Hughston Award paper from 2007, or browse the T. David Sisk Award papers from 2013? You're in luck! New journal award collections are now available for each of our three journals. These collections feature a full listing of all winning papers hyperlinked to the full-text version for quick and easy access to the top-rated published research from each year. To access these collections, simply visit www.ajsm.org, www.sportshealthjournal.org, or www.ojsm.org and locate the listing under the "Collections" tab on each homepage. Happy reading!

Submit a 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. 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 5, 2018. Questions? Contact Camille@aossm.org.

Become a Traveling Fellow or Host One

The AOSSM Traveling Fellowship program is a unique opportunity for individuals to witness orthopaedic sports medicine techniques and surgeries from around the world. Three fellows are selected to visit foreign sports medicine centers for three weeks, and are accompanied by a "Godparent," a well-known senior orthopaedic sports medicine specialist selected by the President. Next year, chosen AOSSM members will go to Europe with the tentative tour dates being April 18–May 12, 2018.



To apply, individuals must be: 1) an AOSSM member 2) a board certified orthopaedic surgeon 3) currently practicing in the U.S. or Canada and 4) 45 years of age or under at the time of the tour. Individuals currently in a sports medicine fellowship should not apply.

Deadline for fellowship applications is October 15, 2017, host applications deadline is December 1. Apply at www.sportsmed.org or Contact Debbie Czech at debbie@aossm.org for information.

AOSSM gratefully acknowledges DJO Global for their continued support of the Traveling Fellowship program.

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.

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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. High resolution (300 dpi) photos are always welcomed.



The Importance of Case Lists

By David F. Martin, MD, Executive Medical Director, American Board of Orthopaedic Surgery

Case lists are a key component of the American Board of Orthopaedic Surgery (ABOS) Certification and Recertification (Maintenance of Certification—‘MOC’) processes. They are a metric that allows the ABOS to assess a Diplomate’s practice. It also allows the Diplomate a chance to assemble and review a case list and self-evaluate their performance in practice. As with all ABOS processes, the goal is to improve patient care.

Case lists are critical to an oral examination since the Diplomate’s list forms the basis for those cases that are selected for the actual examination. Case selectors review the entire case list, practice profiles, and complications to select 12 cases for the examination. These case lists are also key for the subspecialty certification application, allowing the ABOS to ensure that applicants are truly specialized in orthopaedic sports medicine.

The American Board of Medical Specialties (ABMS), which sets standards for its 24 member boards, also requires a process for Diplomates to personally review their performance in practice. The ABOS fulfills this requirement with the case list process. The ABMS process includes the preparation and submission of the case list, preparation of a feedback report by the ABOS, and review of that report by the Diplomate.

Preparation of a case list further allows a Diplomate the opportunity to review practice patterns in light of accepted standards, patient outcomes, and the rate and types of complications that have occurred. When entering cases into the ABOS exclusive Scribe System—and especially when printing a summary report—Diplomates see a snapshot of the types of surgery performed and complications that occurred. In a busy practice, it can be difficult to take the

time to reflect on and pull together these important issues. The case list is the chance for Diplomates to take a critical look at their practice patterns.

The ABOS recently changed the case list requirement for all Recertification (MOC) Candidates (Computer and Oral). Now, a Diplomate enters 75 consecutive surgical cases, starting from the first one in any calendar year two or more years prior to the examination.

Those Diplomates who have performed at least 35 operative surgical cases in a calendar year can apply for any examination. Those who have fewer than 35 operative surgical cases in a calendar year can extend the collection period an additional year to reach the minimum of 35. However, those Diplomates are required to take an Oral Recertification Examination. Those who cannot reach the 35 minimum cases over two years will recertify through a non-operative pathway. You can be set up this pathway by calling the ABOS offices at 919/929-7103.

Those initially applying for a Subspecialty Certificate in orthopaedic sports medicine must submit a one-year case list consisting of at least 115 operative surgical cases and 10 non-operative cases. Seventy-five of the 115 operative cases must involve arthroscopy as a component of the procedure. Once those individuals achieve Subspecialty Certification, their MOC process will include a Combined Sports Medicine Examination—taken after the submission of an application and a case list—that recertifies both the General and Subspecialty Certificates.

The ABOS has streamlined the case list submission process, removing elements that were deemed unnecessary. The complication section has also been improved, making the definitions and entry process clearer.

Blueprints Available Online

The American Board of Orthopaedic Surgery (ABOS) has published detailed Blueprints for all computer-based examinations. These interactive PDFs show approximate percentages for the types of questions contained in each examination. All ABOS computer-based examinations are developed from blueprints. The Subspecialty Certificate Examination blueprint can be found at www.abos.org/subspecialties/orthopaedic-sports-medicine. The Recertification Examination Blueprint is at www.abos.org/moc/examination-options.

Diplomates receive a feedback report based on their submitted case list. Feedback reports are not released until all Recertification Examinations are administered in a calendar year. The report indicates how many cases were performed over the time period, the three most common International Classification of Disease (ICD) and Current Procedural Terminology (CPT) codes used, the complication rate, as well as other data. These data are benchmarked against other Diplomates taking the Recertification Examination and particularly against others in the same subspecialty. Diplomates should review the information and use it to again evaluate their practice and choose appropriate practice improvement activities and continuing medical education.

The ABOS also uses the case lists as part of its credentialing process. All Diplomates are credentialed prior to being approved to sit for Recertification or Part II Examinations. The Credentials Committee assesses outliers in case list profiles, such as arthroscopies in elderly patients, arthroplasties in young patients, or excessively low/high complication rates. Based on this case list review, in conjunction with other information such as peer review, the committee may accept, defer, or deny a Diplomate’s application to take a Recertification Examination. An Oral Recertifying Examination may be required to evaluate performance in practice.

SUPPORT AOSSM RESEARCH



Most AOSSM members would agree that there are few things professionally more satisfying than being able to help their patients get back in the game and enjoy their everyday lives. Orthopaedics has advanced tremendously throughout the past 50 years—much of which was made possible by research. Each new surgical technique, device, and biologic have led

to countless advances in the profession, especially sports medicine.

Time, patience, and financial resources are all needed to produce quality research, like that accomplished by AOSSM.

In order for us to grow our specialty and continue to be a leader in orthopaedics, we need to remain focused on one of our core pillars: research. By giving back

to AOSSM, your donation allows you to invest directly in research that will positively impact your patients' lives as well as the sports medicine community.

To pledge your support to sports medicine research, visit www.sportsmed.org and click on the donate button. We thank those listed below for their support in 2016 and 2017.

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Research Grant Winners Selected

Congratulations to this year's research grant winners:

2017 Steven P. Arnoczky Young Investigator Grant

The Young Investigator Grant (YIG) is designed to support early career orthopaedic surgeons who have not received funding from sources outside of their institution. The award is named in honor of Dr. Arnoczky's contributions to orthopaedic sports medicine and is supported by individual donations given to the Society. This year's recipient is **Brian Lewis, MD**, from Duke University for his research project "In-vivo Evaluation of Femoroacetabular Cartilage Strain."

2017 Sandy Kirkley Clinical Outcomes Research Grant

To honor the memory and spirit of Dr. Kirkley, AOSSM awards this grant for a clinical outcomes focused, research project or pilot study in orthopaedic sports medicine that represents Dr. Kirkley's legacy to support outcome research that informs evidence-based practice. This year's recipient is **Richard C. Mather, III, MD**, from Duke University for his research project entitled, "Using Social Incentives to Increase Response Rate to Routine Patient Reported Outcome Measurement after Episodic Healthcare Interventions."

2017 AOSSM/Sanofi Osteoarthritis Grant

The recipient of this year's AOSSM/Sanofi Osteoarthritis Grant is **Li Zeng, PhD**, of Tufts University for the research project entitled, "Investigating Early Changes of the Joint Environment in Injury-Induced Osteoarthritis Progression." This grant funds a basic science project or clinical research study related to early osteoarthritis and/or prevention of osteoarthritis progression.

AOSSM gratefully acknowledges **SANOFI BIOSURGERY**  for their support of this grant.



Submit Your Research for a 2018 AOSSM Research Award

The AOSSM Research Committee selects the best original research manuscript for the AOSSM Research Awards including:

- **Excellence in Research Award**—given to the best manuscript concerning any topic in sports medicine research with a primary author under the age of 40 at the time of the AOSSM Annual Meeting.
- **Cabaud Memorial Award**—given to the best manuscript submitted concerning hard or soft tissue biology, in-vitro research, laboratory or "bench-type" research, or in-vivo animal research.
- **O'Donoghue Award**—given to the best manuscript submitted concerning clinical based research or human in-vivo research.

Award winning manuscripts are high-quality, original research. Retrospective studies and systematic reviews are not considered for Research Awards. **All manuscripts submitted by October 1, 2017 are considered for the 2018 Research Awards.** Winners receive a \$2,000 honorarium and an invitation to present their research at the 2018 Annual Meeting in San Diego.

For complete research awards policies and submission instructions, visit our website at www.sportsmed.org/Research or e-mail Kevin Boyer, AOSSM Research Director at kevin@aossm.org.



Matthew Provencher, MD presents Barry Boden, MD, 2017 Excellence in Research Award.



Robert LaPrade, MD, accepts Cabaud Award from Matthew Provencher, MD.



Christopher Kaeding, MD, accepts O'Donoghue Award from Research Committee, Chair, Matthew Provencher, MD.

New Grant on Return to Play Announced



AOSSM in coordination with and support from The Aircast Foundation is offering a new grant of up to \$150,000 to support a clinical research project investigating objective and/or subjective patient-centered criteria and metrics to determine return to play after musculoskeletal injury. Collaborative, multi-center research studies are strongly encouraged and will be a factor in the review process. Studies investigating concussion are not eligible for this grant opportunity.

Complete details for grant applications, including priorities, requirements, and components, are available on our website at www.sportsmed.org/Research. Applications are due no later than November 15, 2017 at 8:00 p.m. PST.

This grant will be awarded in February 2018. The start date of the funded project will be no earlier than March 1, 2018 with an end date no later than March 1, 2021. The actual project may take more than three years to complete and a no-cost extension can be requested.

AOSSM gratefully acknowledges
for their support of this grant.



2018 AOSSM Research Grant Opportunities

Be sure to review the guidelines and instructions for the grant opportunities as they have been updated. Applicants should ensure they have the most recent information from our website at www.sportsmed.org/Research. Please contact Kevin Boyer, AOSSM Research Director, at kevin@aossm.org with questions. Grant winners will be selected by the AOSSM Research Committee at the 2018 Annual Meeting in San Diego, except as noted.

AOSSM/Aircast Foundation Return to Play Grant

- This grant opportunity does not have a pre-review period
- Application Deadline: November 15, 2017, 8:00 p.m. PST
- Award Selection: February 2018
- Project Period: 30–36 months, starting no earlier than March 2018 and completed by March 2021

AOSSM/Sanofi Osteoarthritis Grant

- This grant opportunity does not have a pre-review period
- Application Deadline: January 1, 2018, 8:00 p.m. PST
- Award Selection: July 2018
- Project Period: 12–24 months, starting no earlier than August 2018 and completed by August 2020

Arnoczky Young Investigator Grant

- All interested applicants are **REQUIRED** to submit a pre-review to be eligible for this grant opportunity
- Pre-Review Deadline: January 25, 2018, 8:00 p.m. PST
- Final Deadline: April 1, 2018, 8:00 p.m. PST
- Award Selection: July 2018
- Project Period: 12–24 months, starting no earlier than August 2018 and completed by August 2020

Kirkley Clinical Outcomes Research Grant

- Pre-Review is strongly encouraged but not **required** for this grant opportunity
- Pre-Review Deadline: March 1, 2018, 8:00 p.m. PST
- Final Deadline: May 1, 2018, 8:00 p.m. PST
- Award Selection: July 2018
- Project Period: 12–24 months, starting no earlier than August 2018 and completed by August 2020



AOSSM Leaders Participate in the 11th Biennial Congress of ISAKOS

AOSSM Past Presidents Annunziato Amendola, MD, and Allen F. Anderson, MD, along with Past Council of Delegates Chair, Christopher C. Kaeding, MD, represented the Society as faculty at the 11th Biennial Congress of the International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine, June 4–8, 2017, in Shanghai, China. They presented a symposium entitled, *Return to Sport and Prevention of Re-Injury* which covered the topics “ACLR in Children: When Is It Safe to Return?,” “High Risk Stress Fractures: Minimizing Reoccurrence,” and “Syndesmosis, Lisfranc, and Turf Toe Sprains: Keys to Success.”

One of ISAKOS’ objectives is to foster the communication and dissemination of knowledge relative to arthroscopy, knee surgery and orthopaedic sports medicine. Thank you to Drs. Amendola, Anderson, and Kaeding for not only helping ISAKOS to meet this objective, but also for their tireless efforts on behalf of AOSSM!



Allen F. Anderson, MD and Christopher C. Kaeding, MD joined by former AOSSM President Peter A. Indelicato, MD.

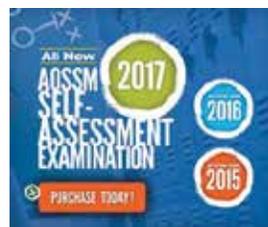
TOOLS TO PREPARE YOU FOR YOUR SPORTS MEDICINE INITIAL OR RECERTIFICATION BOARD EXAM



2016 and 2017 Orthopaedic Sports Medicine Review Course Recordings

Get the most out of your exam preparation and check out the recorded lectures from the 2016 and 2017 Orthopaedic Sports Medicine Review Courses. The cost is \$850/members and \$950/non-members. Questions? Contact Heather Heller at heather@aossm.org or call the Society at 847/292-4900.

Three Self-Assessment Examinations



Identify topics for further study with the AOSSM Online Self-Assessment Examinations and the Orthopaedic Sports Medicine Review Course Online.

Each of the available versions (2015 SAE, 2016 SAE, and 2017 SAE) contains 125 peer-reviewed questions, including feedback and references. Each exam offers a maximum of 12 *AMA PRA Category 1 Credits*[™] and qualifies for Part II SAE under the ABOS MOC Program. Additional questions may be purchased in groups of 25 to further measure learning. The cost per exam is \$125/members and \$150/non-members. Order now! Questions? Contact Meredith Herzog at Meredith@aossm.org.

AOSSM gratefully acknowledges Arthrex for an educational grant in support of this program.

AOSSM/AAOS Orthopaedic Sports Medicine Review Course Prepares Attendees for Exams

Under the expert direction of co-chairs Thomas J. Gill IV, MD, and Christopher C. Kaeding, MD, AOSSM hosted another successful *Orthopaedic Sports Medicine Review* course in Chicago August 11–13, 2017. More than 220 participants spent two and a half days hearing presentations from 15 faculty covering the sports medicine content areas included on the subspecialty certification exam and the recertification exam.

This course is not only an excellent way to prepare for the exams but it also provides a tremendous overview of the field of orthopaedic sports medicine. In fact, several ATCs were in attendance and commented that the course covered material that helps them to better communicate with their team doctors. As an added benefit, the physician attendees received a



complimentary copy of the 2017 AOSSM Self-Assessment Examination to further help them prepare for their exam.

For those interested in viewing the recordings from the course,

they are available for purchase. Visit www.sportsmed.org for details or call the AOSSM office at 847/292-4900.

AOSSM gratefully acknowledges Arthrex for an educational grant in support of this course.

Fellows Course Kick Starts Training

The 2nd Annual AOSSM Fellows Course: *Kickoff to Your Orthopaedic Sports Medicine Training Year* took place on July 30–31, 2017 at the OLC in Rosemont, Illinois. The course built upon last year's success, with 96 fellows in attendance from 42 fellowship programs. The interest in the course increased this year, prompting an invitation to fellows on the wait list to attend the didactic portion.

Led by co-chairs Stephen F. Brockmeier, MD, Jeffrey R. Dugas, MD, and Kurt P. Spindler, MD, the course served as a welcome to the sports medicine fellowship year with an intense overview of what the fellows will see in the upcoming year in the form of lectures and hands-on lab sessions. More

than 25 faculty presented key topics, such as sideline emergencies, spine injuries, common orthopaedic injuries, most common medical conditions, and imaging/arthroscopy of the knee, shoulder and elbow. The presentation and panel highlights included the principles of success for team coverage and finding a job after fellowship. New to the course this year were hands-on spine boarding demonstrations, an orthobiologics presentation, and elbow procedures in the lab. The hands-on lab portion of the course covered labral repair/SLAP, rotator cuff repair, elbow UCL reconstruction, meniscal repair, and ACL reconstruction. Sideline Guidelines, the free iOS app, served as an educational resource for



the course. It is an evidence-based app with more than 250 figures and references that connect directly to PubMed.

AOSSM received overwhelmingly positive feedback from the fellows in attendance and this is a credit to the efforts put forth by the faculty. One attendee commented, "This is a fantastic course that everyone starting fellowship should take."

Thank you to Athletico and Midwest Orthopaedics at Rush for providing the spine boarding equipment.

This course was also made possible with the generous support and commitment of our AOSSM corporate partners, including:





Bill Supporting Team Physicians Clears the House

The House of Representatives on July 12, 2017 passed H.R. 1492, the Medical Controlled Substances Transportation Act of 2017. H.R. 1492 would update the Drug Enforcement Administration (DEA) registration process for mobile medical practitioners and team physicians. Team doctors would be able to carry and dispense controlled substances away from their regular practice setting for up to 72 hours at a time. H.R. 1492 was introduced by Rep. Pete Sessions (R-TX) and passed the Energy and Commerce Committee

unanimously by voice vote in June. AAOS and AOSSM have worked closely with Rep. Sessions to advance the legislation and are now focusing on the Senate.

CMS Releases Final Inpatient Rule

On August 2, the Center for Medicare and Medicaid Services (CMS) issued final regulations for the Medicare Inpatient Prospective Payment System (IPPS) and Prospective Payment System (PPS). These regulations update 2018 Medicare payments and policies when patients are discharged from hospitals. CMS says the rule “relieves regulatory burdens and

supports the patient-doctor relationship in healthcare.” As requested by AAOS, the final rule includes a code change for total ankle replacements that more accurately reflects the difficulty of the procedure. The rule also includes AAOS priorities such as more meaningful use flexibilities and a 90-day reporting period for 2018.

Trauma Bill Advances in House Committee

On July 27, the House Energy and Commerce Committee unanimously voted to advance legislation that would fund military-civilian partnerships in trauma care. This follows a unanimous vote from the Health subcommittee in June. The MISSION ZERO Act (H.R. 880), authored by Rep. Michael Burgess, MD (R-TX) establishes a grant program for trauma centers to bring military trauma specialists to civilian hospitals. The version of the bill that passed the committee contained reductions in funding for the grants due to the difficulty of finding offsets, or provisions that would pay for the bill.

CMS Releases Critical Proposed Regulations

The Centers for Medicare & Medicaid Services (CMS) recently issued rules to update Medicare payments for doctors and to update policies for the Hospital Outpatient Prospective Payment System (OPPS) and the Ambulatory Surgical Center (ASC) Payment System. According to CMS, the proposed rules are a few of several Medicare payment rules for CY 2018 that “reflect a broader strategy to relieve regulatory burdens for providers; support the patient-doctor relationship in healthcare; and promote transparency, flexibility, and innovation in the delivery of care.”



PHOTO CREDIT: PHOTOGRAPHY G

2017 Annual Meeting Brings Together Sports Medicine Community through Top Research and Education

AOSSM's 2017 Annual Meeting brought more than 1,300 sports medicine professionals and their families together for four days of education and fun in Toronto, Ontario, Canada, July 20–23. The meeting kicked off on Wednesday afternoon with the pre-conference workshop in collaboration with the Society for Sports Physical Therapists (SPTS).

With a coffee in hand, attendees were up early on Thursday to partake in a host of instructional courses on topics ranging from baseball throwing injuries to disruptive trends in the business of sports medicine. Following the ICs, AOSSM President Annunziato (Ned) Amendola, MD, and Program Chair, Brian Wolf, MD, welcomed everyone to the official start of the meeting and began the day's presentations in the General Session with a discussion on biceps. Other topics included patellofemoral, the overhead throwing athlete, foot and ankle, shoulder, cartilage and biologics, hip and meniscus injuries. *AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of Thursday's General Session.*

More than 100 people were in attendance for the AOSSM Medical Publishing Workshop on Thursday afternoon which

discussed tips for reviewing a sports medicine paper and how to evaluate the reliability in orthopaedic sports medicine research presented by Bruce Reider, MD, and James L. Carey, MD, MPH. The afternoon offered insight about what it takes to serve on a NIH study section during the free NIH Reviewer Workshop. *AJSM* also hosted its first Facebook Live event with *AJSM* author, Jon Dickens, MD, discussing his article, "The Effect of Subcritical Bone Loss and Exposure on Recurrent Instability After Arthroscopic Bankart Repair in Intercollegiate American Football." It was a tremendous success, so be on the lookout for more Facebook Live events from our journals.

The day ended with the annual welcome reception at the Westin Harbour Castle Harbour Ballroom and Terrace. Attendees and their families had the opportunity to socialize and catch up with colleagues and friends, while enjoying delicious food and spectacular view of the Toronto skyline and harbor. *AOSSM gratefully acknowledges CEP-Topical Gear for their support of the Welcome Reception.*

Friday's session began with discussions on ACL injuries and a live knee surgery demonstration with ligament repair and



osteotomy cases from Kennedy-Fowler in London, Ontario. The society's prestigious awards were presented Friday morning. Dr. Bernie Bach was selected as the recipient for this year's Robert E. Leach Sports Medicine Leadership Award, one of the Society's highest honors. Dr. Bach's many achievements and tremendous dedication to AOSSM were highlighted. In addition, members Douglas Brown, MD, Jesse DeLee, MD, and Thomas Wickiewicz, MD, were inducted into the AOSSM Hall of Fame.

Dr. Amendola's presidential address entitled, "Why AOSSM? Diversity, Teamwork and Passion" inspired attendees to look at what AOSSM has accomplished, how we move forward, and the potential greater impact that is within our reach. He also discussed the three inherent characteristics of the Society's success: diversity, teamwork, and passion. Amendola noted all of the challenges and positive activities of the year and what's to come with the future of sports medicine and AOSSM.

Following Amendola's speech, concurrent sessions included shoulder instability, outcome measures, hip, knee ligament, Team MD: Sideline Management, and the business of sports medicine—modernizing your practice. Kennedy-Fowler again hosted the second live surgery session featuring an

arthroscopic Bankart with interval closure procedure and a latarjet.

Additionally, attendees took advantage of the industry-sponsored symposiums and theater sessions on Thursday and Friday to learn about the latest orthopaedic devices and surgical tools.

During the business meeting on Friday, members were also nominated for the Nominating Committee and new board members approved, including:

Nominating Committee

Asheesh Bedi, MD
Aman Dhawan, MD
Christian Latterman, MD
Benjamin Ma, MD
Peter MacDonald, MD
Scott Mair, MD
Matthew Matava, MD
Beth Shubin Stein, MD
John Wilckens, MD
Rick Wright, MD

Board Members

James Bradley, MD, Vice President
Eric McCarty, MD, Council of Delegates Chair
Mark Miller, MD, Secretary
Dean Taylor, MD, Treasurer
Anil Ranawat, MD, Under 45 member

Friday afternoon activities were capped off with Guided Poster Tours in the Exhibit Hall. Moderators led small group discussion with the attendees and authors

as they spoke about their research. Awards were given to the top three posters:

- **First Place**—"ACL Force and Knee Kinematics after Posterior Tibial Slope-Reducing Osteotomy," Kent T. Yamaguchi, MD
- **Second Place**—"Hop Test Symmetry Scores Early after Rehab Predict Successful 2 Year Outcomes of ACLR," Mathew Failla, PT, PhD, SCS
- **Third Place**—"Meniscus Radial Repair with the Transtibial Two Tunnel Technique: A Non-Inferiority Study with Vertical Meniscal Tears Repair Comparison," Jorge Chahla

Attendees headed back to the Metro Toronto Convention Center on Saturday for another day of educational sessions with discussions and presentations on rotator cuff and shoulder instability, biologics, a knee video session, and mitigating narcotics. *AOSSM gratefully acknowledges Flexion Therapeutics for an educational grant in support of Saturday's General Session.*

One of the biggest highlights of the meeting also occurred on Saturday, with Presidential Guest Speaker and current Duke University Men's Basketball Coach, Mike Krzyzewski discussing his life experiences, as a basketball coach and how that has shaped his interactions with others,



Photos from the Annual Meeting are available for viewing at www.photographyg.com. Select the link on the bottom of the page to View the AOSSM Event. You can create a new account or if you viewed pictures from the 2016 Annual Meeting you can simply sign in. Many photos of the scientific sessions, award presentations, and family fun are there for your enjoyment and to purchase.



especially his family and players—both at the professional and collegiate levels.

Following the speech, Dr. Amendola then presented the presidential medallion and pin to incoming president, Charles Bush-Joseph, MD. This ceremony signified Dr. Bush-Joseph's induction as the 2017–2018 AOSSM President.

Saturday also included the first offering of afternoon instructional courses and 30 Round Table, Case-based Discussions. Several of the round table discussions were sold out early and provided an engaging opportunity for members to share their clinical and treatment insights. *AOSSM gratefully acknowledges Smith & Nephew and DePuy Synthes Mitek Sports Medicine for educational grants in support of several of the Case-Based, Round Table discussions.*

In addition, AOSSM hosted a Saturday afternoon research workshop, “Early Sports Specialization and Return-to-Play Guidelines—How to Best Guide Return-to-Play and Ensure Our Athletes Success in the Future.” Course Directors, Matthew Provencher, MD, Robert LaPrade, MD, PhD, Julie Agel, MA, ATC, and Jeffery Dugas, MD, brought together experts from around the world to review the scientific evidence on these topics and discuss how it can help prevent injuries in a wide range of patients.

The day ended with a trip to the Hockey Hall of Fame. This fun-filled, family event had something for everyone with video simulation games, music, and pictures with the Stanley Cup and player jerseys.

The meeting concluded on Sunday with some final instructional courses and general session presentations on youth sports injury prevention and staying active with osteoarthritis.

AOSSM would like to thank all of our sponsors and exhibitors for their ongoing Annual Meeting support. See you next year at the AOSSM Annual Meeting in San Diego, California, July 5–8, 2018.

Photo Credit for Annual Meeting:
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Meeting Materials and CME

All Annual Meeting materials, including abstracts, outlines, and posters can be viewed by logging into your MyAOSSM page at www.sportsmed.org and clicking on the Meeting Materials tab. Instructional Course handouts can also be found here. You can also view these materials in the free AOSSM App, simply download it from your Apple or Droid app store and sign in with your AOSSM credentials. You can also claim your CME credits under the CME tab on MyAOSSM.



UPCOMING

Meetings & Courses

Registration now open for all of these courses at www.sportsmed.org.



Hit an Educational Homerun with Fall Baseball Course

With the baseball season winding down, you now have a chance to look back, assess, and begin to plan for next season. **Baseball 2017—Youth to the Big Leagues: Managing the Developing Player** is the best way to begin that process. Hear from experts as they discuss management, prevention, and rehabilitation of injuries in baseball and softball.

Engage with your physical therapist, athletic trainer, and sports medicine colleagues and discuss issues that are important to you and your athletes. Each day features case discussions providing the opportunity to exchange ideas and find the best solutions to complex problems. Plus, you'll hear from professionals that not only work with youth but also know what college and major league teams look for in the developing player. **Get information you won't get anywhere else at the AOSSM Baseball 2017 Sports Medicine course!**



Deliver the pay-off pitch to your athletes by registering today at www.sportsmed.org.

Baseball 2017—Youth to the Big Leagues: Managing the Developing Player

October 11–13, 2017
Rosemont, Illinois

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

October 13–14, 2017
Rosemont, Illinois

Advanced Team Physician Course (Registration available at www.acsm.org)

December 7–10, 2017
Washington, D.C.

19th Annual AOS/AOSSM/AANA Sports Medicine Course (Registration available at www.aaos.org)

January 31–February 4, 2018
Park City, Utah

Specialty Day

March 10, 2018
New Orleans, Louisiana

Evaluation and Surgical Management of the Athlete's Hip

April 13–15, 2018
OLC, Rosemont, Illinois

AOSSM 2018 Annual Meeting

July 5–8, 2018
San Diego, California



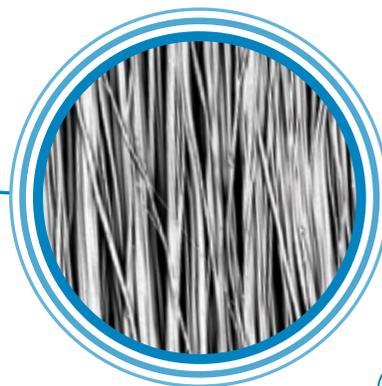
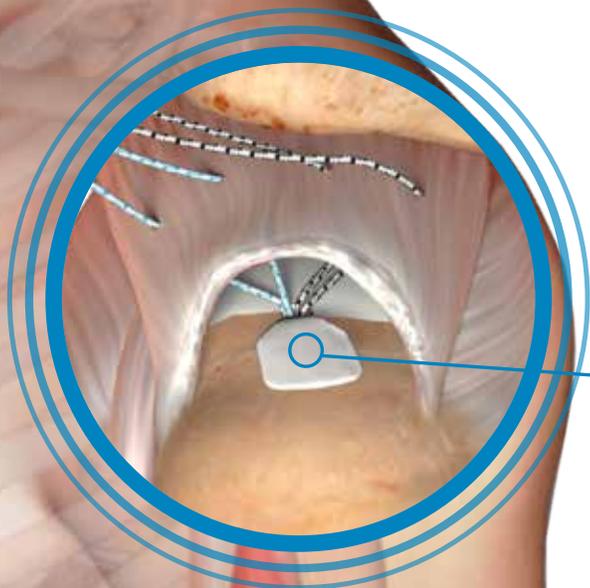
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SPORTS MEDICINE UPDATE

AOSSM

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SURGICAL SKILLS COURSE

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

October 13–14, 2017

Orthopaedic Learning Center
Rosemont, IL

AOSSM
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