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.

TO CONTACT THE SOCIETY: American Orthopaedic Society for Sports Medicine, 9400 W. Higgins Road, Suite 300, Rosemont, IL 60018, Phone: 847/292-4900, Fax: 847/292-4905.
FROM THE PRESIDENT

A Storied Past with a Bright Future

AOSSM’s history is rich and storied, rooted in the vital work of 75 pioneers who shared a vision for the future of sports medicine. They recognized the need for a community to support those who cared for athletes and active people of all ages. These individuals—the founders of AOSSM—created a means to share and publish scientific research. This in turn allowed our peers an opportunity to participate in education, and meet and exchange ideas, while firmly establishing our subspecialty. Today, we continue to embody these deep roots. We weave together our four core pillars of education, research, communications, and fellowship to more than 3,800 members from around the globe. Our vast accomplishments over these past 45 years serve as a strong foundation for today. We are an organization of dynamic colleagues and professional team members who remain tight-knit and steadfast allowing for strong connections, networking, and collegiality. This is all evidenced by our most recent successes:

- The creation of a new $1 million grant from the Aircast Foundation to help fund sports medicine research for the next 10 years
- An Annual Meeting that is growing not only in size (1,300+ attendees), but also in scope. This year we set a record with more than 750 abstract submissions for our program in San Diego next July.
- Recent shoulder surgical skills, baseball, and board review courses all receiving high marks from attendees, while delivering an excellent experience, education and a modest financial return to be re-invested in more programming
- Across-the-board growth in our publishing program with submissions for AJSM climbing 10 percent
- Finally, our impact and reach around the globe is on the rise: 35 countries were represented at our Annual Meeting, and from a social media standpoint—more than 2.5 million people saw what was taking place in Toronto via Twitter and Facebook.

We also have a responsibility as an organization to adapt, evolve, and prepare for the future. Much like the founders’ vision for a community of sports medicine peers, we need to look forward with an open mind, while also representing the cultures and traditions established in 1972. To this end, the Society’s leadership will be analyzing our research and technology areas at its spring Board of Director’s meeting. Research Chair Dr. Matthew Provencher, along with our Director of Research Kevin Boyer, will lead a strategic session to review and establish our long-term research goals. In addition, our professional team is examining the Society’s current technology infrastructure to ensure we stay ahead of the curve and have the tools and necessary resources to serve our members’ online and in-person educational needs moving forward.

While we continue to lay the groundwork for the future, we also recognize change is inevitable and that our membership is not only continually evolving on a global scale, but generationally—from baby boomers to millennials. In a 2016 study, the Pew Research Center found that millennials have now surpassed baby boomers to become the largest living generation in the United States. Our Society sits at a great point of contemplation, with a new generation of leaders emerging. This next generation of leaders absolutely demonstrates a passion for sports medicine that bodes well for our craft’s future. Their eagerness to step-up and contribute is already influencing our organization for the better.

But this melding of the past with the future is a transition that requires savvy introspection, planning and guidance. As roles shift and innovative ideas evolve, we sometimes see “gaps” as dead ends to collaboration. Instead of seeing gaps, we should see opportunities to share ideas and improve. Perspective only expands our knowledge, and educating one another from these differing places only makes us stronger as an organization and as individuals. It also ultimately helps us provide patients the best care in our own practices and institutions.

Lifelong learning is the key to success for us individually and as a Society. When it comes to our Society's future, the time has come to proactively and constructively engage up-and-coming members with our legacy leaders to share, discuss, and set the stage for the future. I am proud and excited for what we have achieved, where we currently stand, and what is on the horizon. I am eager to share more about these ideas in my next President’s Message, so stay tuned. Our future is bright.

Charles Bush-Joseph, MD
Traumatic anterior shoulder dislocations are common, especially in the young active patient population. It is important to recognize the important factors in the diagnosis and treatment of these injuries to avoid complications.
Incidence/Epidemiology
The incidence of shoulder anterior instability ranges from 0.08–1.69 per 1000 person years, and incidence of anterior shoulder dislocation 11.2 to 23.9 per 100,000 person years. Risks associated with recurrent shoulder instability include male sex, age under 30, and activity level (specifically participation in contact/collision sports). Rowe in 1956 reported a recurrence rate was based on age of the patient with 83% recurrence rate in those age 10–20, 63% age 20–40, and 16% age over 40. Hovelius et al. reported in a 25-year follow-up of patients treated nonoperatively for first time anterior shoulder dislocation and found 87% recurrence rate in those ages 15 to 20 and <23% in those over the age of 30. Several other studies examined the risk of recurrent instability in patients treated nonoperatively for first time shoulder dislocation and reported 75%–92% recurrence rate with greater than 67% progressing to require surgical intervention.

Clinical Evaluation
A thorough history often imparts vital information in the initial evaluation of athletes with shoulder instability, including: type of injury (subluxation versus dislocation), mechanism of injury, and chronicity of instability. Initial physical examination following acute presentation, <7 days from injury, should remain limited and primarily focus on neurovascular evaluation. The incidence of axillary nerve injury has been reported as high as 35% in first-time traumatic shoulder dislocation. Once patients are able to tolerate shoulder range of motion, typically between 2–6 weeks from injury, further examination should focus on rotator cuff and labrocapsular assessment.

Rotator cuff injuries are more commonly associated with increasing age, however strength testing of the rotator cuff muscles should be performed in all athletes following traumatic dislocation. The supraspinatus can be tested with arm abduction to 90 degrees; the infraspinatus with resisted external rotation when the arm is adducted; the subscapularis with either lift-off test or belly press test. The labrum and glenohumeral ligaments serve as important static stabilizers, and are often implicated in anterior shoulder instability among athletes. A variety of physical examination tests place stress on these structures and aid in diagnosing anterior shoulder instability.

Anterior Apprehension Test
As described by Rowe, the anterior apprehension test may be performed with the patient standing or supine. Farber et al. were able to demonstrate improved sensitivity (72% vs. 50%) and specificity (96% vs. 56%) when apprehension rather than pain was used as the diagnostic criteria for a positive test. Moreover, the likelihood ratio for anterior instability was significantly higher in the presence of apprehension (20.2) versus pain alone (1.1). The apprehension test may also serve a role in helping delineate patients who remain at higher risk for recurrent instability following nonoperative management of first time dislocation. Safran et al. followed a group of men managed nonoperatively after a first-time anterior dislocation. Of the 52 patients, 46% sustained a repeated dislocation at a mean follow up of 39 months. Within the redislocation cohort, a significantly higher incidence of repeat dislocation was demonstrated among patients with a positive (71%) versus negative (37%) apprehension test performed at six weeks.

Relocation Test
Lo et al. were able to demonstrate improvement in apprehension was more predictive of anterior instability than pain improvement. Removal of the posterior stabilizing force, deemed the “surprise test,” may be performed concurrently with the relocation test. Recurrent apprehension is a positive test and has been shown to accurately support the diagnosis of anterior instability (PPV 98%, 99% specificity).

Laxity Testing
Recent literature has demonstrated laxity testing is not as accurate as apprehension and/or relocation test in predicting anterior instability. Certainly, the efficacy of laxity testing is contingent upon patient compliance; inability to relax due to anxiety and or pain may inhibit reliable results.

Imaging
In the acute evaluation of traumatic shoulder instability, imaging is critical to confirm an anatomic reduction and diagnose any related fractures. Routine orthogonal radiographs should include, Grashey (true AP), axillary, and scapulolateral views. CT imaging should be obtained if radiographs suggest glenoid...
injury is present. MRI plays an essential role in the diagnosis of concomitant labroligamentous lesions. MRI should be considered in the acute setting (within 10 days of injury), as hemarthrosis serves as a contrast thereby enhancing labral pathology. Assumption of location of bipolar bone loss using CT scan can be performed utilizing the glenoid track method. This allows quantitative prediction if bone loss of the humeral head and/or glenoid will result in engaging lesions which increases the risk of failure of arthroscopic Bankart repair.

Nonoperative Management
Nonoperative management following a traumatic shoulder dislocation consists of a period of immobilization, however, the duration and method have been challenged. Previous studies have demonstrated that 97% of athletes with anterior shoulder instability will often have a Bankart lesion, or disruption of the anterior inferior labrum and contiguous anterior inferior glenohumeral ligament. Itoi et al. used MRI to demonstrate improved coaptation of the Bankart lesion when the arm was immobilized in external rotation compared to a conventional internally rotated position. Following their MRI study, Itoi et al. randomized 189 patients to internal versus external immobilization for nonoperative management of first-time anterior shoulder dislocation. Recurrent instability was significantly lower among patients treated with external (26%) versus internal (72%) immobilization. Despite these results, the clinical superiority of immobilization in external rotation has not been supported by more recent literature.

Finestone et al. conducted a prospective study where 51 patients were randomly immobilized in internal or external rotation. They were unable to demonstrate a significant difference in recurrent instability between patients treated with internal (42%) versus external (37%) immobilization. Similarly, in a recent randomized trial of 188 patients, Liavaag et al. showed immobilization in external rotation does not significantly reduce the incidence of recurrent instability following first-time anterior shoulder dislocation (31% vs. 25%).

The optimal duration of sling immobilization has also been debated, however recent literature would suggest longer duration of immobilization does not decrease the incidence of recurrent instability. Hovelius et al. examined long-term outcomes following conservative management of anterior shoulder dislocation in 255 patients. Patients were grouped according to duration of immobilization: Group 1 were immobilized for a minimum of 21 days; Group 2 were placed in a sling until comfortable, ranging (<5 days to 2 weeks); Group 3 was a “mixed treatment” group. At 25 years follow-up there was no significant difference in recurrent instability with >3 weeks immobilization compared to immediate mobilization. Similarly, Paterson et al. found no significant change in recurrent instability rates among patients immobilized for one week or less (41%) compared to three weeks or longer (37%); thus concluding there is no benefit of immobilization for longer than one week.

The ideal protocol for nonoperative management of anterior instability in the athlete is a continuously changing paradigm. Following a period of immobilization, athletes begin rehabilitation and are typically cleared for sport once they are able to demonstrate symmetric range of motion and strength, to complete sport-specific exercises and have no pain or limitations. Rehabilitation and return to play following first time acute traumatic dislocation has provided mixed results. Although Aronen and Regan reported a 25% recurrence rate among 20 midshipmen following a prolonged rehabilitation program, similar studies conducted by Wheeler et al. and Arciero et al. found recurrence rates of 92% and 80% respectively. In their study of nonoperative management of first time traumatic anterior dislocation, Buss et al. found 90% of athletes were able to return to competition after a mean 10 days lost from sport. However, 37% of these athletes demonstrated recurrent instability and nearly half underwent surgical stabilization upon completion of their season. More recently, Dickens et al. prospectively examined the natural history of nonoperative treatment following traumatic anterior shoulder instability in forty-five collegiate athletes. Following an accelerated rehab protocol, 73% of athletes were able to return to sport after a median five days lost from competition. Only 27% of these participants were able to successfully complete the season without a recurrent instability event.

Bracing
Abduction, extension, and external rotation places the shoulder in a vulnerable position for athletes experiencing anterior shoulder instability. Athletic braces would appear helpful by protecting athletes against susceptible positioning, however, their utility in lowering the incidence of recurrent instability has not been supported by recent literature. Bracing inhibits overhead exercise, and therefore is not applicable for all athletes. Buss et al. noted 70% of athletes returning to sport.
adopted a brace and reported subjective improvement in stability, however, recurrent instability rates were not significantly different among those who did and did not wear a brace. Dickens et al. demonstrated similar findings; bracing was used in 61% of athletes returning to sport, however, there was no correlation between brace use and rates of recurrent instability. Although there have not been any prospective randomized trials on the efficacy of brace wear in return to sport in non-operatively managed athletes, the studies that have included brace wear, do not conclusively support reduction in recurrent instability.

**Surgical Management**

Surgical management of recurrent shoulder instability continues to evolve as the number of outcomes studies increase, which provides the treating physician with an evidence base guideline to aid in decision making. The primary goal with surgical treatment is to provide the patient a stable shoulder preventing risk of further injury to the underlying bone and articular cartilage of both the glenoid and humeral head, as well as choosing a procedure that has the lowest risk of recurrent instability. Several factors go into this decision-making, including status of the labroligamentous complex, degree of bone loss on either the glenoid or humerus, as well as number of previous surgeries.

Options for surgical intervention include arthroscopic Bankart capsulorrhaphy, open Bankart capsulorrhaphy/or capsular shift, autograft bone augmentation of the glenoid such as latarjet, or use of iliac crest or distal clavicle, and allograft options such as distal tibial allograft. Choice of which procedure is appropriate is primarily based on patient related factors such as age, activity level, number of dislocations, previous failed instability surgery, and amount as well as location of bone involving either the anterior rim of the glenoid, humeral head (Hill
Historically, outcomes studies comparing arthroscopic and open Bankart repair have demonstrated a lower recurrence rate of dislocation with open procedures (5%–9% open capsulorrhaphy; 5%–33% arthroscopic Bankart). A recent meta-analysis (level of evidence 4) demonstrated similar clinical outcomes between arthroscopic and open shoulder stabilization procedures. Additionally, the authors found when studies were stratified by publication date that those published from 1995 through 2004 demonstrated a significant difference (P=0.15) in recurrence between open and arthroscopic stabilization favoring open surgery (Odds Ratio 1.964); studies published between 2005 through 2015 found no significant difference (P=0.29) between open and arthroscopic stabilization, but the odds ratio of 1.441 still favored open repair indicating that the arthroscopic group had a 44% higher risk of recurrence. In contrast, a systematic review by Harris et al. found no significant difference (P=0.06) in incidence of recurrent instability comparing arthroscopic (11%) to open (8%) stabilization techniques. Leroux et al. performed a systematic review to determine pooled failure rates for stabilization of anterior shoulder instability in contact or collision athletes with additional stratification of failure rates according to modern evidence based surgical indications and techniques. The study design was to address the influence of outdated surgical indications and techniques, poor quality study design, and may not include how patient specific factors affect outcomes. The authors found that glenoid bone loss >20%, engaging Hill Sachs defect, preoperative number of dislocations (>3), age <20, sex, number of suture anchors (<4), and patient positioning for surgery all significantly influenced arthroscopic stabilization failure. The pooled instability recurrence rate following arthroscopic shoulder stabilization was 17.8%. When the authors applied the evidence based patient selection criteria and surgical technique (i.e., minimum of 3 suture anchors, excluded glenoid and/or humeral bone loss, use of the lateral decubitus position) this failure rate was 7.9%. These results indicated with proper patient selection and understanding of the pathology associated with shoulder instability is to the success of arthroscopic stabilization.

**Conclusions**

Timing of surgical intervention can also provide a challenge especially for the patient with a first time dislocation who is an in season athlete. It is important to make a proper diagnosis, perform thorough history and physical examination of the patient following anterior glenohumeral joint dislocation. Equally important is the counseling of the patient as to risks of recurrence as well as consequences of both nonoperative and surgical treatment. Understanding of the pathology and evaluation of the shoulder following anterior dislocation continues to be a rapidly growing area of research investigation.
REFERENCES


A NEW WAY TO LOOK AT SLEEP FOR ATHLETES AND THE DOCTORS WHO TREAT THEM

By C. David Geier, Jr., MD

Sleep: The Myth of 8 Hours, the Power of Naps . . . and the New Plan to Recharge Your Body and Mind

AUTHOR: Nick Littlehales
PAPERBACK: 208 pages
PUBLISHER: Penguin UK, December 27, 2016

Sports Medicine Update is adding a new book review feature and wants to know your comments. Please send your thoughts or recommendations for a future book review to lisa@aossm.org.

The demands on athletes are tremendous. They travel across several time zones for a game and fly home in the middle of the night. They train for hours a day and fit interviews or school or their families into any possible free time. It’s hard for them to develop a regular schedule and achieve the physical and mental recovery they need.

Enter Nick Littlehales, the elite sports sleep coach. Littlehales has consulted with some of the best athletes and teams in the world. He has dedicated his career to improving the recovery of elite athletes.

In his new book, Sleep: The Myth of 8 Hours, the Power of Naps . . . and the New Plan to Recharge Your Body and Mind, Littlehales aims to help people optimize their lives and work. Yes, as the title implies, sleep is an important part of his process. It’s about much more, though. Littlehales teaches you simple steps to feel and perform better.

The foundation of Littlehales’ plan is the R90 recovery process. Instead of thinking of one night’s sleep as a seven- or eight-hour period, break it down into 90-minute cycles. Ninety minutes is the length of time it takes you to go through all the stages of one sleep cycle. Instead of sleeping a typically recommended eight hours, you could sleep for five cycles, or seven hours, 30 minutes.

In Sleep, Littlehales focuses on seven key recovery indicators. Within the discussion of each indicator, he shares tips to optimize them. Then he shows you how to incorporate the R90 program into your life to improve your performance and well-being.

Here is just a glimpse of what is in the book:
- How to manipulate your daily schedule based on your chronotype to be at your best when it matters most
- How to set your wake time and then determine the best times to go to sleep each night
- When you should never eat or exercise
- What the best position is for sleeping (yes, there is only one correct position)
- How to determine the type and size of mattress you need based on your body habitus
- How you should use caffeine and how much is too much
- How to change your pre-sleep routine to get the best night of sleep
- How to improve your alertness, mood, and productivity at work
- How to create recovery periods during the day without napping
- What should be in your bedroom . . . and what shouldn’t
- Why using televisions, cell phones, and other technology at night disrupts your sleep and how you should change your use of this technology during the day

On a personal note, I’ve been using the R90 program to improve my sleep for about nine months, and I’ve never felt better. If you or your athletes want to perform your best, you might give Sleep a chance.
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.sportsmed.org/AOSSMIMIS/GiveToday

Sports Safety Tips Made Easy

Share sports injury prevention information with your patients quickly and easily by directing them to www.STOPSportsInjuries.org. The site provides helpful, mobile-friendly tips for young athletes, including winter sports like basketball, gymnastics, hockey, skiing, and snowboarding. Have a topic or sport that you think we should cover in a tip sheet? E-mail your suggestion to info@STOPSportsInjuries.org.

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@aoss.org to post directly from the STOP Sports Injuries accounts. Download 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.

Welcome to Our New Collaborating Organizations!

Thank you to our 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!

MEDICAL INSTITUTIONS
Houston Physicians’ Hospital
Webster, Texas

SPORTS MEDICINE PRACTICES
Agility Physical Therapy and Sports Medicine
Greenwood Village, Colorado
Complete Performance Centre
Ajax, Ontario, Canada
GlobalPhysio ESP
Madrid, Spain
Ivy Rehab Physical Therapy
Lake Zurich, Illinois
Lahaina Physical Therapy
Lahaina, Hawaii
Lancaster Orthopedic Group
Lancaster, Pennsylvania
Maine Feldenkrais & Physical Therapy
Brunswick, Maine
Premier Orthopaedic Bone and Joint Care
Lewes, Delaware
South Florida Orthopaedics & Sports Medicine
Stuart, Florida
Stone Springs Orthopaedics
Dulles, Virginia
The Knee Joint
Corte Madera, California

Thank You to Our Outreach Committee

The efforts of those on the STOP Sports Injuries Outreach Committee, who provide their time and expertise to review and develop educational content, share ideas, and support us in generating increased awareness for the program, are crucial to our efforts to keep youth sports safe. We’d especially like to thank Daryl Osbahr, MD, for traveling to Munich, Germany in November to speak to the ESMA/ESSKA conference on STOP Sports Injuries’ behalf! Join us in thanking those serving on the committee in 2017–18:
Daryl C. Osbahr, MD, Chair
Ian Al’khafaji, MD
James Bicos, MD
Matthew T. Boes, MD
Kenneth M. Fine, MD
Donald E. Fowler, III, MD
Robert S. Gray, MS, ATC
Joshua C. Hamann, MD
Sommer Hammoud, MD
Kristofer J. Jones, MD
Sara K. Jurek, MD
Eric C. Makhni, MD
James Lee Pace, MD
Matthew A. Posner, MD
James Everett Voos, MD
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 enjoying their everyday lives. Each new surgical technique, device, and therapy has led to countless advances in the profession, especially sports medicine.

Time, patience, and financial resources are all needed to produce quality research, like the projects 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. With your help, we can continue to promote high-impact clinical studies like the Multicenter ACL Revision Study (MARS) and the exploration into new therapies through translational and basic science investigations of biologics.

Stop and consider the difference AOSSM has made in your career and then pay it forward by visiting www.sportsmed.org to make a secure, online 2017 contribution! This year, 100% of the AOSSM Board of Directors and staff have stepped up to make sports medicine research a priority. Please join our team and invest in the scientific knowledge and innovative thinking that continues to shape our profession and enhance the care we provide. If you’ve already made a 2017 donation, we sincerely appreciate your support!

Make your secure 2017 donation for sports medicine research at http://www.sportsmed.org/aossmimis/Members/About/Donations
Nominate Your Mentor 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 are available 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 Petrick at camille@aossm.org.

Submit Your Sideline Videos/Pictures

Help us highlight all of your achievements on and off the field. Submit your sideline photos and videos to joe@aossm.org and we will highlight them in an upcoming issue of SMU and on our social media and website pages! Please include high resolution photos of at least 300 dpi and include a caption detailing who is in the video or photo.

Download the New AOSSM App

Looking for the resources from the Annual Meeting or want to check out the agenda for an upcoming meeting, connect with other attendees or exhibitors? AOSSM has you covered in our new app! 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. Once downloaded, you will need to login to the app with your AOSSM credentials. Questions? Call the Society at 847/292-4900 or send us an e-mail at info@aossm.org.

Are You Part of the Sports Medicine Conversation?

AOSSM, AJSM, Sports Health, and OJSM are 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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www.facebook.com/STOPSportsInjuries
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Whitehead Passes Away

Pam Whitehead lost her battle with breast cancer earlier this fall. Many may know her as a Senior Vice President of corporate sales for DJO, others for her own company, Orthopedic Solutions, Inc. Women in orthopaedics, especially those in orthopaedic sports medicine will always remember Pam for starting an orthopaedic women’s group called The Forum, an organization that hosted an annual gathering that was both scientific and social. Pam was a supporter, an innovator, a champion for women in orthopaedics but also a good friend to many. She will be greatly missed.

Got news we could use?

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.
Dr. Allen F. Anderson an esteemed part of the AOSSM and sports medicine community tragically passed away on his farm, Sunday, November 12, 2017. He was 67 years old. He served as President of AOSSM from 2015–2016 and on the Board of Directors in varying capacities for many years. He was also the Associate Editor of the *Orthopedic Journal of Sports Medicine* and *The American Journal of Sports Medicine*.

Dr. Anderson had worked as an orthopaedic surgeon with the Tennessee Orthopaedic Alliance (TOA) in Nashville since 1996, performing more than 20,000 surgeries and helping innumerable patients during his career. He published more than 100 scientific manuscripts in peer review journals and 26 book chapters. He had 21 scientific exhibits at national and international meetings, numerous national and international presentations, and 75 instructional course lectures. He also received a patent for the invention of a pediatric ACL reconstruction system. In addition, he had a deep passion for teaching which led him to visit many countries around the world.

Despite his national and international prowess, there was also an important part of Dr. Anderson that all who truly knew him were aware of—his profound humility, humanity, and graciousness towards others: “Allen treated everyone with respect, be it at board meetings, social functions, and particularly when around his family. It was important that everyone around him was comfortable, which is the sign of a true gentleman,” said Ned Amendola, MD.

“Several years ago former Executive Director Irv Bomberger and I were at a BOS meeting in Nashville. Allen and Candy took us to dinner at a favorite local spot. Allen, in his wonderful drawl, argued with us to try some bourbon called Angel’s Envy, a drink to that point unfamiliar to me. We tried some others and I had a great discussion with the owner and Allen about various Tennessee/Kentucky whiskeys. Several weeks later a gift from Allen arrived—a bottle of Angel’s Envy that we could enjoy on our own. He was a very special friend,” said Robert Stanton, MD.

Dr. Anderson made an impact wherever he went, whether it was in the outdoors he loved so much, on the playing field or in the board room: “He was a complete person that stood out among the crowd. His love for nature and the outdoors was demonstrated by his dedication to conservation and his love of hunting and fishing. This was most evident in evenings by the campfire as he truly savored his favorite Tennessee whiskey. It is these moments that those of us who really knew Allen will be missed most,” said Ed Wojtys, MD and Rick Wilkerson, DO.

“When I heard of Allen’s sudden and tragic passing, I was overcome with a personal grief that was unexpected. I had not realized the powerful impact he had on my own path not only as an orthopaedic colleague but as a friend. He thankfully wrote “Allen’s Orthopaedic Rules” which are really life rules and define Allen’s character (see sidebar). Allen had a quiet confidence and great wisdom. I often found myself wondering in my silence at his ability to cut through a morass of issues and get right to a perfect analysis and solution. Allen also had another fantastic quality: he could laugh at himself. We as orthopaedists are not shy on ego, self-importance, and opinion. But despite being one of the most accomplished orthopaedists, surgeons, researchers, lecturers, and leaders of our Society, he had a profound humility that was always laced with a funny, often self-deprecating story. Allen is the most special of people, someone who comes along rarely in one’s life. He has loved, helped, and influenced so many people and is true to the idea that the worth of a person is what he gave to everyone else. For his family and all of us who knew him, ‘he will never be gone.’ How he lived will continue to inspire us all for years to come,” said Robert Arciero, MD.

His greatest joy was Jesus and spending time with his beloved wife, Candy, and their three sons, Brian, David, and Chris. He leaves behind five grandchildren: Evie, Ben, Eleanor, Caroline, and Francis Allen. He also leaves two daughters-in-law, Jeanna and Laura, two sisters, Holly Wilds and Noel Anderson, and one brother, Gary Anderson, plus many nieces, nephews, cousins, and countless friends—who will all miss him greatly.

Donations in honor of Dr. Anderson can be made to: West End Community Church, 235 White Bridge Pike, Nashville, TN 37209 or at www.westendcc.org/give.
Anderson's Orthopaedic Rules
By Allen Anderson, MD
1. Show no fear or the wolves will eat you up.
2. There is no substitute for hard work.
3. Never stop learning. Surgical training is an evolutionary process. The standard of care today will be antiquated tomorrow.
4. Under promise and over achieve.
5. Know your limitations.
6. Nothing is so bad that you can’t make it worse; the corollary is that nothing is so simple that you can’t screw it up.
7. Have a surgical plan and two alternatives in case a complication occurs.
8. Everything takes twice as long as you think it will because you are only half as good as you think you are.
9. It’s the little things that make the difference.
10. Never, never, never give up.
11. “It’ll be OK” is never good enough.
12. Be vigilant. Even good assistants can mess you up.
13. Fads come and go in orthopaedics, if it doesn’t make sense or is unproven, don’t do it!
14. If a technique that has come and gone comes back again, don’t even think about it.
15. Arrogance leads to conflict; humility leads to harmony.

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

Every July between 600 and 800 orthopaedic surgeons become American Board of Orthopaedic Surgery (ABOS) Board Certified after passing the Part II Oral Examination. Another 100 or so Diplomates earn a Subspecialty Certification in orthopaedic sports medicine each fall. Becoming Board Certified, Recertified, and earning Subspecialty Certification are great achievements for orthopaedic surgeons. Looking back on those important accomplishments leads me to reflect on the history of the formation of the ABOS.

The first formally organized body representing orthopaedic surgery was the American Orthopaedic Association (AOA), established in 1887. This group met annually for fellowship and the advancement of orthopaedic surgery knowledge and science. In 1931, the AOA formed two committees which eventually changed the structure of the American orthopaedic community. The first committee was charged with establishing an organization which would be more broadly based than the AOA and would not have the AOAs membership restrictions. This was the beginning of the American Academy of Orthopaedic Surgeons (AAOS), which was founded in 1933. The second committee was formed by the AOA to investigate the establishment of an orthopaedic specialty board with a distinctly different mission from the AAOS in order to avoid conflict of interest with the membership organization.

In January 1933, the AOA recommended specific composition of a Board for Orthopaedic Certification consisting of representatives of the AOA, the AAOS, and the Section of Orthopaedic Surgery of the American Medical Association (AMA). In February 1934, Articles of Incorporation were developed, setting forth the objectives of the American Board of Orthopaedic Surgery (ABOS). Soon thereafter, the ABOS formed an Examinations Committee, an Eligibility Committee, and a Residency Training Committee which was responsible for the evaluation of hospitals and medical schools educating young surgeons to become orthopaedic surgeons.

In 1936, the ABOS published formal requirements for the first formal educational standards to be established for orthopaedic surgery in the United States, which stipulated that a candidate must:

- Be a graduate of a medical school approved by the AMA Council of Medical Education and Hospitals
- Be of high ethical and professional standing
- Be duly authorized to practice medicine in the state or province of his residence
- Be a member of the AMA or other society approved by the AMA Council on Medical Education and Hospitals
- Have three years of concentrated instruction in orthopaedic surgery approved by and acceptable to the ABOS
- Have had two years further experience in the actual practice of orthopaedic surgery and also have knowledge of the basic medical sciences related to orthopaedic surgery

While many of our requirements have changed since then, some are exactly the same or are just modifications of early principles. There have been many additional changes to ABOS programs since then (such as Recertification), but the one most applicable to you is the Subspecialty Certificate in Orthopaedic Sports Medicine. The ABOS and AOSSM spent many years discussing the possibility. In 2004, the concept of an Orthopaedic Sports Medicine Subspecialty Certificate was approved by the ABOS and the first examination was conducted in 2007. Today, it is only one of two ABOS Subspecialty Certificates, the other being hand surgery.

Prior to becoming the ABOS Executive Medical Director, I was an ABOS Director from 2005 through 2015. It was an exciting 10 years. Serving as a Director is a major commitment; however, there are numerous other ways that Diplomates can volunteer with the ABOS. For additional information, login to www.abos.org and click on the “Volunteer” button. The ABOS needs volunteers to help us continue to "do the right thing.” Thank you!

FEBRUARY 1, 2018: Deadline to apply for the 2018 ABOS Orthopaedic Sports Medicine Subspecialty Certification Examination

MAY 1, 2018: Deadline to apply for the 2019 ABOS Recertification Examinations—including Orthopaedic Sports Medicine Practice-Profiled Examination and Orthopaedic Sports Medicine Combined Examination

More information is available on abos.org.
The 2017 AOSSM to SLARD Traveling Fellows met throughout the year, leading up to our travels this past summer. We spent four weeks in South America, during winter there, learning the breadth of mutual interests and friendship that exist in orthopaedic surgery throughout the world. Myself (AFA and Arizona), Marc Tompkins (Minnesota), Seth Sherman (Missouri), and Robert “Bob” Schenck (New Mexico, Godfather) became acquainted in San Diego, Toronto, and finally on the jetway to Bogotá, Colombia.

Bogotá, Colombia

Our trip began with our hosts Manuel “Mosco” Mosquera, Fabio Restrepo, and Giuseppe Alajmo. Mosco and Fabio are sports surgeons in Bogotá, a high-elevation city nestled at the base of the jungle-covered mountain Monserrate (10,341’). Mosco met us at the airport in Bogotá and was at our side throughout the visit to Colombia.

Bogotá was especially enjoyable as we learned more about each other and became friends. We toured clinics and hospitals and grew accustomed to foods, two languages, and the common language of orthopaedic problems (including torn or failed anterior cruciate ligaments, articular cartilage repair, patellofemoral instability, shoulder instability, rotator cuff tears, and biceps pathology).

Our experience in Bogotá was highlighted by our new appreciation of meat and the density of people, traffic, and sounds. Our visit to Monserrate, Museo Botero, and the Salt Cathedral (Catedral de Sal) gave us many reasons to return to beautiful Colombia.

Lima, Peru

We made our first international trip within South America when we flew to Lima, Peru and met our hosts David Torres and Christian Lozano. Lima is a beautiful city with a gray sky and numerous surfers in wet suits, situated on the Pacific. With a population of 11 million people, our visit was fascinating and busy while traveling about the vastness of the city. Highlights of our non-medical Lima experience were a trip to the ruins at Pachacamac. The culinary experience in the Peruvian capital is like no other. We had the great opportunity to lecture on sports medicine basics to residents and faculty, and to operate with our hosts.

Santiago, Chile

Flying into South America in winter became more of a reality as we moved south. We landed in Santiago, seeing the amazing Andes vistas and rain shadows on mountains. We were welcomed to this very European city at the airport by David and Loli Figueroa, with a reception that evening at their beautiful home.

We had an amazing visit with lectures, operating room experiences, and a day in the vineyards at Cases del Bosque. We were hosted by Alex and Carolina Vaisman for a final group dinner of a classic, country-style Chilean meal—and of course karaoke, with the 2015 SLARD Godfather, David Figueroa, singing perfectly on key.

We combined several evenings (including our final week in Brazil) with the friendly ESSKA traveling fellows, Egemon Altan, Peter De Leeuw, Alex Apostolopoulos, and Godfather Joan Carles Monllau.

Buenos Aires, Argentina

Following Santiago, we then flew to Buenos Aires, and were met at the airport

A Tour Recap—AOSSM to SLARD

By Dain Allred, MD
We quickly acclimated to the Argentinian culture of conversation, wine, lectures, and more excellent surgery.

Our first night was filled with presentations hosted by Facundo Gigante, Guillermo Arce (future ISAKOS president), and our two hosts Tomás Vilaseca and Fede Spikermann. Dinner was held with the entire group at the famous La Cabrera. The Argentinian specialties of Bife Chorizo, Tira de Asado, and Entraña were spectacular.

We were fortunate to have a little relaxation time with Tomás Vilaseca and friends on the links at the Jockey Club. We then spent a terrific day with Cristian Collazo at Hospital Austral, finishing off with a late lunch at La Porteña. We visited Boca Juniors Fútbol Club with Fede, Gerardo, and Fernando, which included a fantastic lunch at El Desnivel.

Our last weekend in Buenos Aires was spent at an Estancia, a horse farm for polo ponies, hosted by Rodrigo and Natty Maestu, and Federico and Maria Virasoro. We spent two days on the farm, relaxing, riding horses, and recharging our batteries.

São Paulo, Brazil
After a wonderful time in Buenos Aires, we flew to São Paulo for our last week with gracious Brazilian hosts. We were met by Gustavo Arliani at the airport, and then we joined up with Diego Astur to see a Santos soccer match and enjoyed our evening with residents and faculty. We met with previous SLARD traveling fellows: Alberto de Castro Pochini (2006) and Andrew Pedrinelli (2009).

The next morning, we gave lectures and watched surgery with Moises and Camila Cohen and the shoulder surgeon Benno Ejnisman. Throughout Brazil, the ESSKA fellows traveled with us as one large group. Moises Cohen and his team hosted us for a remarkable lecture evening at his clinic, followed by an elegant dinner the next night at his home.

Curitiba, Brazil
The ESSKA and AOSSM contingencies became close friends, and our combined travels were an unexpected but welcomed bonus to our trip. For our last stop, we were off to the SBRATE meeting (Brazilian national sports conference) in Curitiba with our host Lucio Erland, where we got to meet up with special guest Freddie Fu, as well. In addition to the meeting, this stop included a visit to Lucio’s clinic and some interesting face-to-face patient presentations. Thanks to the meeting, we also had a fun reunion with our earlier hosts from SLARD, Mosco Mosquera, David Torres, Christian Lozano, David Figueroa, and Guillermo Arce.

Day-to-Day Learning
During our travel, we got to know each other well, laughed at remarkably similar work problems, and enjoyed talking of family, homes, and orthopaedic training. We did our best to keep up with daily activities at home and to exercise. We definitely remained nourished as there were many amazing meals, lunches, wines, and breakfasts. Rest was one thing that was sometimes elusive, so it was always taken when given an opportunity. As Moises Cohen would tell us later, “welcome to the non-sleep traveling fellowship.”

Acknowledgments
We thank DJO Global and the AOSSM leadership for sponsoring this amazing tour. We express sincere gratitude to our fantastic hosts, who helped make this Traveling Fellowship an unforgettable journey: Manuela “Mosco” Mosquera, Guiseppe Alajmo, Fabio Restrepo, Christian Lozano, David Torres, David Figueroa, Alex Vaisman, Cristian Fontboté, Facundo Gigante, Rodrigo Maestu, Tomás Vilaseca, Federico “Fede” Spikermann, Moises Cohen, Benno Ejnisman, Gustavo Arliani, Diego Astur, Lucio Erland, and many other new friends who helped us along the way. Our flight connections were incredibly stress free because of the wonderful Debbie Czech and her meticulous planning.
AOSSM and AANA are pleased to announce that the following sports medicine fellowship programs are participating in the Orthopaedic Sports Medicine and Arthroscopy Match for 2018.
CMS Finalizes Outpatient and ASC Rule, Removes TKA

On November 1, 2017, the Centers for Medicare & Medicaid Services (CMS) finalized the Hospital Outpatient Prospective Payment System (OPPS) and Ambulatory Surgical Center (ASC) Payment System rule, which includes updates to the 2018 rates and quality provisions, and other policy changes. Importantly, the rule finalizes changes to the Medicare inpatient-only (IPO) list for CY 2018. AAOS recognizes CMS for removing total knee arthroplasty (TKA) from the IPO list and that acknowledging this decision should be “made by the physician based on the beneficiary’s individual clinical needs and preferences. AAOS further acknowledges CMS for noting that the surgeons, clinical staff, and medical specialty societies who perform outpatient TKA and possess specialized clinical knowledge and experience” are most suited to create guidelines to identify appropriate candidates. AAOS is currently developing measures to assist selection of the ideal candidate for these procedures.

House Votes to Repeal IBAB

In mid-November, the U.S. House of Representatives passed H.R. 849, the Protecting Seniors’ Access to Medicare Act, by a vote of 307-111. AAOS commends members of the House for passing this important legislation (introduced by Reps. Phil Roe, MD (R-TN) and Raul Ruiz, MD (D-CA), which would eliminate sections 3403 and 10320 of the Affordable Care Act (ACA) and repeal the Independent Payment Advisory Board (IPAB) before it is activated. This board—charged with making recommendations to cut Medicare expenditures if spending growth reaches a certain level—threatens the ability of elected representatives in Congress to ensure seniors have access to the health care they need when they need it. The bill now moves to the Senate.

House Discusses NIH Funding

The House Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies, chaired by Tom Cole (R-OK), held a hearing on October 24, 2017 to discuss the recently proposed budget costs regarding NIH funding. The current proposal is to cap NIH Indirect Cost Reimbursement at 10% of total research costs in FY 2018, a large reduction from the 28% spent by NIH in FY 2017. Not only would this proposal adversely affect researchers and doctors in all arenas, but the proposal would also inspire the trend to keep diminishing NIH research appropriations from Congress. Decreased funding for NIH research has been a major burden for the orthopaedic community over the last several years, and AAOS is working with Congress and the orthopaedic community to put money back in the hands of researchers, all with the goal of improving the quality of life for Americans suffering from unfortunate musculoskeletal conditions.

Chairman Cole, ranking member Nita Lowey (D-NY) and ranking member Rosa DeLauro (D-CT) all gave their reasons for their rejection of the proposal during their opening remarks of the hearing before hearing the testimonies from the witnesses. The chairman and both ranking members were all in agreement that these cuts to the NIH would play a negative role in the biomedical environment of this country, due to the amount of lives that would be affected by less research and the effects of these cuts to Americas biomedical economy, all at the peril of some of the country’s top universities. Ranking member Rosa DeLauro even discussed the bi-partisan Accelerating Biomedical Research Act which would reverse the funding cuts, and untie the hands of the committee and allow them to go above the caps. The biggest concern expressed by all the key witnesses and the subcommittee was the fact that these cuts to the NIH would limit research and inadvertently affect the ability doctors have to save lives.
RESEARCH AWARD WINNERS ANNOUNCED

Congratulations to the 2018 AOSSM Research Award winners:

Excellence in Research
*Tissue-Engineered Total Meniscal Replacement Using a Fiber-Reinforced Scaffold in a Two-Year Ovine Model*
Jay Patel, PhD
Rutgers University, New Brunswick, New Jersey

Cabaud Memorial Award
*The Influence of Graft Tensioning Sequence on Tibiofemoral Orientation During Bicruciate and Posterolateral Corner Knee Ligament Reconstruction: A Biomechanical Study*
Gilbert Moatshe, MD
Steadman Phillipson Research Institute, Vail, Colorado

O’Donoghue Sports Injury Award
*Arthroscopic versus Open Anterior Shoulder Stabilization: A Prospective Randomized Clinical Trial with 15-Year Follow-up and an Assessment of “On-Track” and “Off-Track” as a Predictor of Failure*
Craig Bottoni, MD
Tripler Army Medical Center, Honolulu, Hawaii

AOSSM Research Funds Grow with $1 Million Gift
AOSSM thanks the Aircast Foundation for their generous commitment of $1 million to fund sports medicine clinical research for the next decade starting in 2018! More details on this incredible gift and specifications for upcoming research grants will be available in February 2018.

New JRF Ortho Grant to Sponsor Science Research
AOSSM also thanks JRF Ortho for a $50,000 grant to support a project investigating meniscal allograft transplantation or osteochondral allograft transplantation. More details on this grant opportunity will be available in early 2018.

MARS Funding Extended
Congratulations to AOSSM Member, Rick Wright, MD, and his team of researchers on receiving MARS R01 NIH grant competitive renewal funding for more than $650,000! The MARS study was originally funded by AOSSM and continues to provide insights into ACL revision reconstruction effectiveness and treatments.
Baseball 2017—Youth to the Big Leagues: Managing the Developing Player

The Orthopaedic Learning Center (OLC) in Rosemont (Chicago), Illinois was buzzing this past October 11–13 with the first baseball sports specific course in 10 years. *Baseball 2017—Youth to the Big Leagues: Managing the Developing Player* was jammed packed with exceptional presentations by leaders in sports medicine and player development. Thank you to course chairs Charles A. Bush-Joseph, MD, and Steven B. Cohen, MD, for creating an agenda and assembling faculty to discuss the latest in evidence-based medicine for the prevention, treatment, and rehabilitation of baseball injuries along with engaging discussions on how to manage the developing player.

The keynote speaker was retired Chicago Cubs pitcher, Ryan Dempster who provided a player’s perspective on many current baseball topics along with recounting his personal journey to the big leagues. It was entertaining to hear his perception on how things have changed! A huge thank you to the course chairs and faculty for preparing and presenting hours of outstanding education during the course. We look forward to continuing this program in the future.

The Cutting Edge 2017: Arthroscopic and Open Shoulder Technique’s in the Athlete’s Shoulder

Under the expert direction of co-chairs Brett D. Owens, MD, and Matthew T. Provencher, MD, AOSSM hosted another successful surgical skills course entitled, *The Cutting Edge 2017: Arthroscopic and Open Shoulder Technique’s in the Athlete’s Shoulder*, in the OLC in Rosemont (Chicago), Illinois on October 13–14, 2017. The sold-out course featured didactic lectures and case discussions and more than six hours of lab time. One participant commented, “Great speakers, excellent mix of cases and didactics.” Another stated, “There was ample opportunity to interact with faculty.”

The next AOSSM surgical skills course, *The Hip in the Athlete—An International Perspective*, takes place April 13–14, 2018 in partnership with ISAKOS. Space is limited for these courses and they often sell out so register today at [www.sportsmed.org](http://www.sportsmed.org).

*AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this course.*
UPCOMING
Meetings & Courses
Learn more at www.sportsmed.org.

AAOS/AOSSM/AANA Sports Medicine Course
Register at www.aaos.org
January 31–February 4, 2018
Park City, Utah

Specialty Day
Register at www.aaos.org
March 10, 2018
New Orleans, Louisiana

AOSSM/ISAKOS The Hip in the Athlete: An International Perspective
April 13–15, 2018
OLC, Rosemont, Illinois

AOSSM 2018 Annual Meeting
July 5–8, 2018
San Diego, California

AOSSM/AAOS Orthopaedic Sports Medicine Review Course
August 10–12, 2018
Chicago, Illinois

Keep Your Edge: Hockey Sports Medicine 2018
August 17–19, 2018
Toronto, Ontario, Canada
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