

Sports Medicine UPDATE

JULY/AUGUST 2011



**STOP Sports
Injuries
Campaign
Wins Award**

**Research
Awards**

**2011 Annual
Meeting Recap**

**ADOLESCENT
THROWING
INJURIES**



AOSSM



2 Team Physician's Corner Pitch Counts, Pitch Types, and Prevention Strategies in the Adolescent/Little League Baseball Player

- 1 From the President
- 7 STOP Sports Injuries
Receives Award
- 8 Research Grants
- 9 Research Awards
- 11 Society News

- 12 Membership News
- 12 Names in the News
- 13 Coding Corner
- 14 2011 Annual Meeting
Recap
- 20 Upcoming Meetings
and Courses

SPORTS MEDICINE UPDATE is a bimonthly publication of the American Orthopaedic Society for Sports Medicine (AOSSM). The American Orthopaedic Society for Sports Medicine—a world leader in sports medicine education, research, communication, and fellowship—is a national organization 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, 6300 North River Road, Suite 500, Rosemont, IL 60018, Phone: 847/292-4900, Fax: 847/292-4905.

CO-EDITORS

EDITOR **Brett D. Owens MD**
EDITOR **Daniel J. Solomon MD**
MANAGING EDITOR **Lisa Weisenberger**

PUBLICATIONS COMMITTEE

Daniel J. Solomon MD, Chair
Kevin W. Farmer, MD
Kenneth M. Fine MD
Robert A. Gallo MD
Robert S. Gray, ATC
Richard Y. Hinton MD
David M. Hunter MD
John D. Kelly IV MD
Brett D. Owens MD
Kevin G. Shea MD
Michael J. Smith, MD

BOARD OF DIRECTORS

PRESIDENT **Peter A. Indelicato MD**
PRESIDENT-ELECT **Christopher R. Harner MD**
VICE PRESIDENT **Jo A. Hannafin MD, PhD**
SECRETARY **James P. Bradley MD**
TREASURER **Annunziato Amendola MD**
UNDER 45 MEMBER-AT-LARGE **David R. McAllister MD**
UNDER 45 MEMBER-AT-LARGE **Matthew Provencher MD**
OVER 45 MEMBER-AT-LARGE **Mark E. Steiner MD**
PAST PRESIDENT **James R. Andrews MD**
PAST PRESIDENT **Robert A. Stanton MD**
COUNCIL OF EDUCATION **Andrew J. Cosgarea MD**
COUNCIL OF RESEARCH **Constance R. Chu MD**
COUNCIL OF COMMUNICATIONS **Daniel J. Solomon MD**
EX OFFICIO COUNCIL OF DELEGATES **Marc R. Safran MD**
JOURNAL EDITOR, MEMBER EX OFFICIO **Bruce Reider MD**

AOSSM STAFF

EXECUTIVE DIRECTOR **Irv Bomberger**
MANAGING DIRECTOR **Camille Petrick**
EXECUTIVE ASSISTANT **Sue Serpico**
ADMINISTRATIVE ASSISTANT **Mary Mucciante**
FINANCE DIRECTOR **Richard Bennett**
DIRECTOR OF CORPORATE RELATIONS **Debbie Cohen**
DIRECTOR OF RESEARCH **Bart Mann**
DIRECTOR OF COMMUNICATIONS **Lisa Weisenberger**
COMMUNICATIONS ASSISTANT **Joe Siebelts**
STOP SPORTS INJURIES CAMPAIGN DIRECTOR **Michael Konstant**
DIRECTOR OF EDUCATION **Susan Brown Zahn**
SENIOR ADVISOR FOR CME PROGRAMS **Jan Selan**
EDUCATION & FELLOWSHIP COORDINATOR **Heather Heller**
EDUCATION & MEETINGS COORDINATOR **Pat Kovach**
MANAGER, MEMBER SERVICES & PROGRAMS **Debbie Turkowski**
EXHIBITS & ADMIN COORDINATOR **Michelle Schaffer**

AOSSM MEDICAL PUBLISHING GROUP

MPG EXECUTIVE EDITOR AND AJSM EDITOR **Bruce Reider MD**
AJSM SENIOR EDITORIAL/PROD MANAGER **Donna Tilton**
SPORTS HEALTH EDITORIAL/PROD MANAGER **Kristi Overgaard**





Peter A. Indelicato, MD

IT IS AN HONOR to be the 40th president of AOSSM, and a privilege to succeed Bob Stanton, MD. His leadership fostered collaboration among Society leaders and identified a fresh set of strategic priorities so that we can move forward in a thoughtful and deliberate manner. My objective as president is to facilitate the Board's oversight and direction as we apply the Society's tremendous organizational, intellectual, and financial resources toward achieving our goals.

The Society has a solid and extensive foundation upon which to build. Education has always been the cornerstone of our activities, and our Annual Meeting in San Diego demonstrated that in many different ways. Marlene DeMaio, MD, and the program committee did a superb job of providing a solid mix of cutting edge research, special symposia, and instructional courses reflecting the intellectual vigor and educational diversity that we embrace as an organization. In addition, the live surgical demonstrations provided a unique feature to our traditional meeting format while maintaining our commitment to solid, objective CME. We are grateful to the generous support of Arthrex, ConMed Linvatec, DePuy Mitek, and Stryker for the workshop.

Equally important, the Annual Meeting reflected how the Society is embracing technology to enrich our sense of community and enhance our organizational efforts. The meeting featured a mobile app that allowed registrants to review and incorporate volumes of printed material and many other handy features from the convenience of their smart phones, tablets, and laptops. The Society also launched its newly developed cellular response system, which enabled the audience to pose questions, respond to queries, and provide additional feedback on the educational content and experience. We also previewed our new website which will power our burgeoning Society activities. (Visit www.sportsmed.org to see the new site.) Finally, the Board also transitioned to iPads for conducting Board business not just for its cost effectiveness and efficiency, but also to ensure the organization—and its leaders—are part of AOSSM's digital migration.

The Annual Meeting also underscored the strength of our relationships with the broader orthopaedic community. Our leadership had the opportunity to meet with representatives from ESSKA, EFOST, and GOTS to discuss ways that we can collaborate. Similarly, our meetings with corporate leaders reaffirmed their deep support for AOSSM's rigorous, objective approach to education and research. While I had the opportunity to thank these individuals personally, I want to publicly thank the companies who each provide more than \$100,000 a year as Elite Sponsors: Arthrex, Biomet, BioMimetic, ConMed Linvatec, DJO Global, DePuy Mitek, Genzyme Biosurgery, MTF Sports Medicine, OSSUR, RTI Biologics, Smith & Nephew, and Stryker.

Looking back, I realize our accomplishments are built on a strong succession of ideas and leaders who provide continuity and direction. Looking forward, I realize that AOSSM is well-positioned to achieve its strategic objectives. I thank Bob Stanton and the AOSSM and Medical Publishing Boards for their vision. I commit myself and the Society leadership to maintaining its focus in implementing these objectives so AOSSM remains a world leader in orthopaedic sports medicine education, research, communication, and fellowship.

Peter A. Indelicato MD





PITCH COUNTS, PITCH TYPES, AND PREVENTION STRATEGIES IN THE ADOLESCENT/LITTLE LEAGUE BASEBALL PLAYER

GRANT JONES, MD
The Ohio State University
Columbus, Ohio

Little league baseball started in Williamsport, Pennsylvania, in 1939, but was not prevalent nationwide until 1955 when it had more than 3,300 leagues in 48 states. Since that time, its popularity has continued to increase, and it is estimated that today more than six million adolescents participate in organized baseball in the United States. Unfortunately, as little league baseball's popularity has increased, so has the number of shoulder and elbow injuries.

Continued on page 3

In research performed by Dr. James Andrews, the percentage of ulnar collateral reconstructions on high school pitchers compared to college level or above pitchers has increased over three consecutive 4-year time periods: from 8 percent between 1995 and 1998, to 17 percent between 1999 and 2002; and, finally, to 24 percent between 2003 and 2006.¹

A study by Lyman et al² followed 481 youth baseball pitchers during one spring season to determine risk factors for shoulder and elbow injury. The study showed significant associations between the number of pitches thrown and shoulder and elbow pain. The investigation also found associations between the curveball and increased shoulder pain and the slider and increased elbow pain. Since this study, many recommendations have been made regarding pitch counts and types of pitches for youth pitchers. In 2004, the USA Baseball Medical & Safety Advisory Committee developed guidelines for youth pitcher safety.³ In 2007, Little League Baseball replaced older recommendations of inning limits with pitch counts. Then in 2009, Little League Baseball added rules prohibiting an athlete from playing pitcher and catcher in the same game to further reduce the risk of overuse.

Some of the original pitching recommendations have been supported with more recent scientific evidence while others have been refuted or brought into question. This article reviews the current scientific evidence regarding pitch counts, pitch types, pitch biomechanics, and prevention strategies.

Pitch Counts

Beginning with the Lyman et al² study, the literature has clearly supported the belief that as the number of pitches thrown during a game, season, and/or year increases, so does the number of injuries. Intuitively, this makes sense since most of these injuries are due to repetitive microtrauma. So as the number of pitches increases, there are a greater number of microtraumatic insults to the shoulder and elbow structures.



Furthermore, as the pitch count increases, fatigue occurs in all parts of the kinetic chain, which makes the shoulder and elbow joints even more susceptible to injury.⁴⁻⁶

Lyman et al² also did a 10-year perspective study looking at injury rates in this cohort of athletes.⁷ The overall risk of a youth pitcher sustaining a serious throwing injury within 10 years was 5 percent. Those athletes who pitched more than 100 innings in a year were 3.5 times more likely to be injured than those who pitched less than 100 innings. In addition, those pitchers who also played catcher were injured more frequently, presumably secondary to the increased number of throws a catcher makes during a game compared to infielders or outfielders. However, this did not reach statistical significance. So, these investigators recommended that a youth pitcher should not throw more than 100 innings in a year and should avoid also playing catcher in the same game they had pitched.

In a comparison of 95 adolescent pitchers who had shoulder and elbow surgery and 45 adolescent pitchers who had not, Olsen et al⁸ found that the injured group pitched significantly more months per year (8 months average in injured group versus 5.5 months in the control group), games per year, innings per game (6 versus 4 innings), pitches per game (88 versus 66 pitches), pitches per year, and warm-up pitches before a game. Also, the injured pitchers were more frequently starters, pitched in more showcases (4 versus 1 career showcase), pitched with a higher velocity (88 versus 83 mph fastball speed), and pitched with arm pain and fatigue. Taller and heavier pitchers also

had an increased risk of having to have surgery. Adolescent throwers who pitched more than eight months per year were five times more likely to be injured compared to those who pitched less. Pitchers who threw more than 80 pitches per game had almost four times the increased risk of injury. Throwers whose fast pitch velocity was greater than 85 mph were at 2.6 times increased risk of injury requiring surgery.

Based on their findings, Olsen et al⁴ recommended that adolescent pitchers should not pitch with arm fatigue or pain. The authors also suggested that these pitchers should avoid pitching more than 80 pitches per game, pitching competitively more than eight months per year, and pitching more than 2,500 pitches in competition per year. In addition, pitchers with the following characteristics should be monitored closely for injury:

- Pitchers who regularly use anti-inflammatory medications or ice to prevent injury
- Regularly starting pitchers
- Pitchers who throw greater than 85 mph
- Taller and heavier pitchers
- Pitchers who warm up excessively
- Pitchers who participate in showcases

Kaplan et al⁹ studied 50 uninjured high school pitchers from a warm-weather climate (WWC) and 50 from a cold-weather climate (CWC). The WWC group pitched more months per year than the CWC, with the number of months pitched having a negative impact on internal rotation motion and external rotation strength. The WWC pitchers had significantly lower external rotation strength and external/internal rotation strength ratios. Significant external rotation weakness¹⁰ and internal rotation loss^{11,12} has been associated with throwing arm injury in pitchers. Therefore, the increased number of months pitching in the WWC group may predispose these pitchers to biomechanical changes in the shoulder and subsequent injury. These authors concluded that the recommendations

Continued on page 4

for the maximum number of months of pitching per year proposed by Olsen et al⁴ should be followed.

Restriction on Pitch Types

Since the 1970s, sports medicine experts have warned that throwing curveballs at a young age can lead to elbow injury.¹³ The theory was that there is more stress placed on the elbow with the curveball than with other pitches and that the immature elbow cannot tolerate this increased stress. Lyman et al² found associations between the slider and increased risk of elbow pain and the curveball and increased risk of shoulder pain. However, there was no long-term follow-up on these athletes at the time the paper was written to determine whether the pain the athletes were experiencing was an early indicator for significant injury. However, in a 10-year prospective study on this cohort, the authors discovered that throwing curveballs before the age of 13 did not increase the pitchers' risk of throwing injuries.⁷

Other studies have substantiated the finding that throwing the curveball may not increase one's risk of injury. Olsen et al⁸ found that pitch type frequency and age at which pitch types were first thrown were not predictive of the need for shoulder and elbow surgery in adolescent baseball players. Furthermore, biomechanical studies have shown that the curveball may not result in increased shoulder and elbow forces and torques compared to the fastball. In a biomechanical evaluation of 29 youth baseball pitchers, Dun et al¹ reported that elbow and shoulder loads were greatest in the fastball and least in the change-up, with the curveball falling in between the two. Similarly, Nissen et al¹⁴ studied 33 adolescent baseball pitchers and found that moments on the shoulder and elbow were significantly less when throwing a curveball than when throwing a fastball. These authors stated that the magnitude of the moments at the glenohumeral and elbow joints directly correlated with ball velocity.

Biomechanical studies on collegiate level and above pitchers have had similar

Continued on page 5



findings. In a kinetic comparison among the fastball, curveball, change-up, and slider in collegiate baseball pitchers, Fleisig et al¹⁵ reported that the resultant joint loads were similar among the fastball, curveball, and slider and significantly less for the change-up. They concluded that breaking pitches are not particularly dangerous for collegiate level pitchers. Similarly, Elliot and Grove¹⁶ compared the biomechanics of the fastball and curveball in six Australian national pitchers and found that the kinematics between the two pitches were similar.

Based on the current literature, it does not appear that breaking pitches, such as the curveball, result in increased stresses and increased risk of injury to the upper extremity compared to the fastball. It appears that the most important factor in the amount of stress the shoulder and elbow experience is not the type of pitch one throws, but how hard one throws it (pitch velocity). This is best demonstrated in the Olsen et al⁸ study where taller, heavier pitchers who pitched with higher velocities were more prone to shoulder and elbow injuries, but pitch type frequency did not affect injury rate. Increased pitch velocity has also been associated with elbow injury in professional baseball pitchers.¹⁷ Another conclusion that can be drawn from these studies is that the change-up may be the safest pitch from an injury standpoint and should, perhaps, be used more frequently, particularly in youth pitchers to prevent injury.

Effect of Range of Motion and Strength on Injury

In the mature pitcher, decreased external rotation strength¹⁰ and decreased internal rotation range of motion (ROM)^{11,12} has been associated with increased risk of throwing arm injury.

Byram et al¹⁰ noted a significant association between weakness in supraspinatus strength and external rotation strength and increased risk of throwing related injury requiring surgical intervention in professional baseball pitchers. It has been

theorized that an imbalance between the over-strengthened internal rotators and weakened external rotators causes damage to shoulder muscle and connective tissue, given the important role of the external rotators in arm deceleration and the internal rotators in acceleration. The weakened external rotators cannot decelerate the arm as well, placing more stress on the static constraints of the joint including the posterior joint capsule and placing more demand on the other shoulder muscle groups. In addition, an appropriate balance between the internal and external rotators is required to stabilize the joint during the throwing motion. As a result, Wilk et al¹⁸ developed the “Thrower’s Ten Program” to maximize activation of the posterior shoulder musculature to counteract the strong internal rotators.

Muscle imbalance has also been shown to contribute to throwing related pain and injury in adolescent pitchers. Trakis et al¹⁹ studied the muscle strength and ROM of 23 adolescent pitchers, 12 of whom had throwing-related pain. Dominant versus non-dominant muscle strength was lower for the pain group versus the non-pain group for the middle trapezius and supraspinatus and higher for the internal rotators, thus demonstrating a muscle imbalance between the weak posterior musculature and the strong internal rotators. They concluded that the throwing-related pain in this population may be related to the inability of the weak posterior musculature to tolerate the stress placed on it by the strengthened, anterior propulsive musculature, resulting in injury to the posterior musculature and contracture of the posterior joint capsule. These authors recommended a selective posterior shoulder strengthening program for injury prevention and rehabilitative programs in adolescents.

Pitching Technique and Biomechanics

Improper pitching mechanics have been shown to place more torque and load on the shoulders and elbows of youth and



A youth pitcher should not throw more than 100 innings in a year and should avoid also playing catcher.

adolescent baseball players. Davis et al²⁰ evaluated the ability of 169 baseball pitchers (aged 9–18) to perform five correct biomechanical pitching parameters while throwing a fastball. The authors utilized a quantitative motion analysis system and a high-speed video to measure humeral internal rotation torque, elbow valgus load, and pitching efficiency.

The five parameters studied included:

- leading with the hips (pelvis leading the trunk toward home plate during the early cocking phase),
- hand-on-top position (the throwing hand is on top of the ball as it comes out of the glove during the early cocking phase),
- arm in throwing position (elbow reaching its maximum height—glenohumeral abduction—by stride foot contact),
- closed-shoulder position (lead shoulder in a closed position, pointing toward home plate at stride foot contact),
- and stride foot toward home plate (stride foot pointed toward home plate at stride foot contact).

Adolescent pitchers (aged 14–18) were found to be much more likely to perform the five parameters correctly, which may be a function of being more physiologically developed and being progressed further in their pitching skills. There was much more variability in the ability to perform the correct parameters in the youth pitchers (aged 9–13). Youth pitchers who performed three or more parameters correctly showed lower humeral internal rotation torque,

Continued on page 6



lower elbow valgus torque, and higher pitching efficiency than those who performed two or less correctly. The authors state that the safest and most efficient transfer of energy from the lower extremity, through the trunk, and into the upper extremity depends on the correct timing and sequence of movements (glenohumeral abduction, scapular positioning, humeral external rotation) as much as the actual quality of the motions (degree of pelvic rotation or humeral external rotation). Appropriately performing the timing and sequence of these movement decreases torque on the shoulder and elbow joints which may, in turn, help prevent shoulder and elbow injuries in youth pitchers.

Conclusions

As the popularity of youth baseball has increased, so have the number of injuries. So, it is important to develop injury prevention strategies. Physicians should encourage coaches to familiarize themselves with the most recent guidelines published by Little League Baseball or the USA Baseball Medical and Safety Advisory Committee. Based on the most current literature, monitoring and limiting the number of pitches per game and per year, the number of months playing baseball, and the number of higher velocity pitches (substituting more change-ups for fastballs) may aid in the prevention of upper extremity injuries. The curveball has

not been shown to be associated with increased injury compared to the fastball, but it has been shown to place more torque and load on the elbow and shoulder joints than the change-up. So, it should still be used with caution. Next, initiating a physical therapy prevention program emphasizing strengthening of the posterior shoulder musculature and stretching of the posterior capsule may help prevent upper extremity injury in young pitchers. Finally, proper mechanics should be emphasized to assure the appropriate transfer of energy through the body during the pitching cycle to decrease torque and loads on the shoulder and elbow joints.

References

- Dun S, Loftice J, Fleisig GS, Kingsley D, and Andrews JR. A biomechanical comparison of youth baseball pitches: Is the curveball potentially harmful? *Am J Sports Med.* 2008. 36: 686-692.
- Lyman S, Fleisig GS, Andrews JR, Osinski ED. Effect of pitch type, pitch count, and pitching mechanics on risk of elbow and shoulder pain in youth baseball pitchers. *Am J Sports Med.* 2002. 30: 463-468.
- Kerut EK, Kerut DG, Fleisig GS, Andrews JR. Prevention of arm injuries in youth baseball players. *J La State Med Soc.* 2008.160: 95-98.
- Olsen SJ, Fleisig GS, Dun S, Loftice J, Andrews JR. Risk factors for shoulder and elbow injuries in adolescent baseball pitchers. *Am J Sports Med.* 2006. 34: 905-912.
- Escamilla RF, Barrentine SW, Fleisig GS, Zheng N, Takada Y, Kingsley D, Andrews JR. Pitching biomechanics as a pitcher approaches muscular fatigue during a simulated baseball game. *Am J Sports Med.* 2007. 35: 23-33.
- Mullaney MJ, McHugh MP, Donofrio TM, Nicholas S. Upper and lower extremity muscle fatigue after a baseball pitching performance. *Am J Sports Med.* 2005. 33: 108-113.
- Fleisig GS, Andrews JR, Cutter GR, Weber A, Loftice J, McMichael C, Hassell N, Lyman S. Risk of serious injury for young baseball pitchers. *Am J Sports Med.* 2011. 39: 253-257.
- Olsen SJ, Fleisig GS, Dun S, Loftice J, Andrews JR. Risk factors for shoulder and elbow injuries in adolescent baseball pitchers. *Am J Sports Med.* 2006. 34: 905-912.
- Kaplan KM, ElAttrache NS, Jobe FW, Morrey BF, Kaufman KR, Hurd WJ. Comparison of shoulder range of motion, strength, and playing time in uninjured high school baseball pitchers who reside in warm- and cold-weather climates. *Am J Sports Med.* 2011. 39: 320-328.
- Byram IR, Bushnell BD, Dugger K, Charron K, Harrell FE, Noonan TJ. Preseason shoulder strength measurements in professional baseball pitchers: Identifying players at risk for injury. *Am J Sports Med.* 2010. 38: 1375-1382.
- Myers JB, Laudner KG, Pasquale MR, Bradley JP, Lephart SM. Glenohumeral range of motion deficits and posterior shoulder tightness in throwers with pathologic internal impingement. *Am J Sports Med.* 2006. 34: 385-391.
- Wilk KE, Marcrina LC, Fleisig GS, Porterfield R, Simpson CD, Harker P, Paparesta N, Andrews JR. Correlation of glenohumeral internal rotation deficit and total rotational motion to shoulder injuries in professional baseball pitchers. *Am J Sports Med.* 2011. 39: 329-335.
- Andrews JR, Fleisig GS. Preventing throwing injuries. *J Orthop Sports Phys Ther.* 1998. 27: 187-188.
- Nissen CW, Westwell M, Ounpuu S, Patel M, Solomito M, Tate J. A biomechanical comparison of the fastball and curveball in adolescent baseball players. *Am J Sports Med.* 2009. 37: 1492-1498.
- Fleisig GS, Kingsley DS, Loftice JW, Dinnen KP, Ranganathan R, Dun S, Escamilla RF, Andrews JR. Kinetic comparison among the fastball, curveball, change-up, and slider in collegiate baseball pitchers. *Am J Sports Med.* 2006. 34: 423-430.
- Elliot BC, Grove JR. A three-dimensional cinematographic analysis of the fastball and curveball pitches in baseball. *Int J Sports Biomech.* 1986. 2: 20-28.
- Bushnell BD, Anz AW, Noonan TJ, Torry MR, Hawkins RJ. Association between pitch velocity and elbow injury in professional baseball pitchers. *Am J Sports Med.* 2010. 38: 728-732.
- Wilk KE, Meister K, Andrews JR. Current concepts in the rehabilitation of the overhead throwing athlete. *Am J Sports Med.* 2002. 30: 136-151.
- Trakis JE, McHugh MP, Caracciolo PA, Busciacco L, Mullaney M, Nicholas SJ. Muscle strength and range of motion in adolescent pitchers with throwing-related pain: Implications for injury prevention. *Am J Sports Med.* 2008. 36: 2173-2178.
- Davis JT, Limpivasti O, Fluhme D, Mohr KJ, Yocum LA, ElAttrache NS, Jobe FW. The effect of pitching biomechanics on the upper extremity in youth and adolescent baseball pitchers. *Am J Sports Med.* 2009. 37: 1484-1491.



STOP Sports Injuries Campaign Wins Award

The STOP Sports Injuries campaign recently won recognition in two leading national awards programs for creative excellence in the communications field. The campaign won the Communicator Award of Distinction for a Not-for-Profit Integrated Campaign and the Telly Bronze Award. In addition, the campaign's video "In the Game for Life" won the Communicator Award of Distinction for a Public Service Commercial. These awards affirm the campaign's vision and the substantial outreach efforts of all the members of the STOP Sports Injuries campaign. Congratulations!



Become a Supporter

If you have not become a collaborating supporter yet and would like information on how to become involved, e-mail STOP Sports Injuries Campaign Director, Mike Konstant at michael@stopsportsinjuries.org, or visit www.STOPSportsInjuries.org and click on the "Join Our Team" link.

Campaign Hits the Road

Part of the strategy to grow the STOP Sports Injuries campaign is spreading its message into the community. Campaign Director Mike Konstant has taken that strategy to heart and made it a point to get out and participate in local community events while promoting the campaign. These opportunities have not only helped spread the message of the campaign to athletes, parents, coaches, and healthcare professionals, but they have also provided Mike with first hand experience that can be shared with other individuals and organizations. Give Mike a call at 847/655-8623 to discuss further or e-mail him at michael@stopsportsinjuries.org.

Recent events have included:

NeuroSpine Institute Foundation 1st Annual Celebrity Reception and Golf Tournament, May 15-16, Orlando, Florida

Approximately 120 people attended and a percentage of the proceeds went to supporting the campaign.

Providence Sports Care Center-Kids Day Health Fair with Portland Timbers Soccer Game, May 25, Portland, Oregon

Approximately 3,000 children came to the game where there was a staffed table with campaign materials.

Fox Valley Orthopedics/Kane County Cougars Pack the Park for Prevention, June 11, Batavia, Illinois

A collaboration was announced with Mike Konstant on the field before the game. The STOP Sports Injuries campaign had a table set up with materials and it generated 200 completed pledges by children and parents.



Virtua Center for Athletic Performance Football Program, June 29-30, Cherry Hill, New Jersey

This week-long football camp and clinic was for youth in grades 6-12. DePuy Mitek, one of our sponsors, was also a sponsor of the event.

Cleveland Clinic Sports Health, Continental Cup International Youth Sports Festival, Opening Ceremonies, June 30-July 1, Cleveland, Ohio

Mike attended the opening ceremonies of this team sporting event that attracted 6,000 attendees. The STOP Sports Injuries campaign co-branded materials were featured at the health safety booths.

1st Annual STOP Sports Injuries Community Event, July 9, Canyon Crest Academy in San Diego, California

This interactive educational event was for athletes, parents, coaches, and athletic

directors and featured AOSSM presidents, local area orthopaedic surgeons and athletic trainers, and two former NFL players. This event provided educational presentations and campaign materials.

Texas Girls Coaches Association 2011 Summer Clinic, July 12-14, Austin, Texas

AOSSM member, Randy Williams of East Texas Orthopaedic Clinic, secured complimentary exhibit space for this conference that drew 4,000 individuals. Dr. Williams gave a presentation on preventing ACL injuries and helped promote the campaign.

As the STOP Sports Injuries campaign continues to grow, more and more youth sports safety events are popping up across the country. If you are hosting an event, post your event on the website and then e-mail the highlights and any photos to Joe Siebelts at joe@aossm.org for the next issue of *SMU*!



MULTITUDE OF AOSSM GRANT RESOURCES AVAILABLE

AOSSM/Smith & Nephew Innovative Outcomes Assessment Grant:

\$25,000 grant to support novel approaches to measuring the effects of surgical procedures in orthopaedic sports medicine. Deadline for applications is April 18, 2012.

AOSSM/ConMed Linvatec Young Investigator Grants:

\$40,000 grants for studies conducted by individuals in the early stages of their careers. Deadline for pre-review submissions is August 15, 2011. Final applications deadline is December 1, 2011.

AOSSM/BioMimetic Therapeutics Sandy Kirkley Clinical Outcome Research Grant:

\$20,000 to support pilot or small-scale clinical outcome research projects. Deadline for pre-review submissions is August 15, 2011. Final applications deadline is December 1, 2011.

Visit www.sportsmed.org and search "Research" for more information about each grant and for instructions on how to apply. Information on additional grant-related resources is also available on the website or you can contact Bart Mann, Director of Research at bart@aossm.org.



Participate in AOSSM Osteoarthritis Feasibility Study

AOSSM organized two conferences in 2008 and 2010 that focused on post-traumatic osteoarthritis (OA). One outgrowth of those meetings is a potential initiative by AOSSM to conduct an Early ARthritis Therapies (EARTH) multi-center clinical study initiative involving human subjects without substantial joint degeneration but who are at risk for rapid progression of OA due to joint injury. The goal of EARTH would be to evaluate acute intervention strategies (the specific strategies are currently under consideration) following ACL tears that aim to delay or prevent the onset of post-traumatic osteoarthritis. The underlying hypotheses are that joint injury initiates a series of events resulting in more rapid joint degeneration culminating in early disabling OA, and that early intervention prior to the development of irreversible changes may modify the disease course.

An important initial step before launching such a project is to establish the feasibility of obtaining sufficient numbers of patients who present to orthopaedic surgeons within the hypothesized window during which chondroprotective interventions are most likely to be effective, i.e., within one week of injury. All interested AOSSM members are invited to participate in this feasibility

study. Participation would involve recording some very basic information about all patients who you see for an initial ACL injury within a three month period. The information to be recorded would be:

- date of ACL injury,
- date of initial visit,
- date of surgery (if operative case),
- concomitant injuries to index knee,
- prior injuries and surgeries to knee, and
- patient age, gender, height, and weight.

This study would thus evaluate the number of patients who are seen within one week of injury and would help characterize patients. This will also help identify sites and surgeons who might be willing to participate in a future Society-organized clinical trial involving chondroprotective intervention in acute ACL-injured patients.

Data collection for the feasibility study will begin in August but interested members can begin data collection any time after. Currently, the infrastructure for the study is being developed including a Web-based data entry system (a paper version will also be available).

If you are willing to participate in the feasibility study or if you would like additional information, please contact Bart Mann at bart@aossm.org.

Prestigious Research Awards Presented at Annual Meeting

In order to recognize and encourage cutting-edge research in key areas of orthopaedic sports medicine, the AOSSM presented 14 research awards and grants during our Annual Meeting in San Diego, California, this year. As a leader in orthopaedic sports medicine, AOSSM annually provides more than \$350,000 to research initiatives and projects around the country. Highlights of this year's award recipients include:

2011 AOSSM/ConMed Linvatec Young Investigators Grants

The Young Investigator Grants (YIG) are specifically designed to support young researchers who have not received prior funding. This year AOSSM selected two winners: Austin V. Stone, MD, Wake Forest University, "Molecular Mechanisms in Meniscus Injury that Contribute to Subsequent Osteoarthritis," which will study how to better define the molecular pathways activated by meniscal injury that result in meniscal degeneration and contribute to the development of post-traumatic OA. The second winner is Elizabeth M. Dulaney-Cripe, MD, Wright State University. She will be studying how adipose tissue-derived stem cells may improve tendon-to-bone repair.



2011 AOSSM/BioMimetic Sandy Kirkley Clinical Research Outcome Grant

To honor the memory and spirit of Dr. Kirkley, AOSSM established a grant of \$20,000 that provides start-up, seed, or supplemental funding for an outcome research project or pilot study. This year's recipient is J. Robert Giffin, MD, Fowler Kennedy Sport Medicine Clinic/University of Western Ontario. His winning project, "Does Usual Rehabilitation Result in Better Outcomes than Staged Rehab Post ACL Surgery?" will analyze an alternative approach to rehabilitation with patients receiving minimal supervision for the first 12 weeks post-ACL reconstruction, such that they

have the means to participate in supervised physiotherapy later on when strengthening, coordination, and sport-specific exercises are the focus of rehabilitation.



2011 AOSSM/Smith & Nephew Innovative Outcomes Assessment Grant

New in 2011, this grant was initiated to support development of innovative approaches to measuring the effects of surgical procedures in orthopaedic sports medicine. This \$25,000 grant is meant to advance the evaluation of clinical outcomes related to surgery by encouraging novel approaches, techniques, and/or methodology that will facilitate and enhance clinical research. Stephen Lyman, PhD, and his colleagues from the Hospital for Special Surgery were selected for their project, "Validation of Electronic Knee Specific Patient Reported Outcome Instruments."



2011 AOSSM/Genzyme Osteoarthritis Grant

Lee D. Kaplan, MD, University of Miami, won the inaugural AOSSM/Genzyme Osteoarthritis (OA) Basic Science Research Grant for his project: "Articular Cartilage Epigenetics Following Impact Injury." The AOSSM/Genzyme Osteoarthritis Grant funds investigations related to early osteoarthritis and/or prevention of OA progression. This one-year award of \$50,000 supports

a lab/basic science project and is chosen by the AOSSM Research Committee.



Aircast Award for Basic Science

Voted by the AOSSM Fellowship Committee, this year's winning paper is "Effect of Acetabulum Rim Recession on Anterior Rim Angle: A Cadaveric Study," by Michael Salata, MD, Katherine Manno, BS, Chris Gross, MD, James S. Williams, PhD, Walter Virkus, MD, Charles A. Bush-Joseph, MD, Shane Jay Nho, MD, Rush University Medical Center, Chicago, Illinois; Vamshi Yelavarthi, Boston Medical College; and Joseph U. Barker, MD, Raleigh Orthopaedic Clinic, Raleigh, North Carolina.



Aircast Award for Clinical Science



Voted on by the AOSSM's Fellowship Committee, awardees receive \$1,500.

The paper entitled:

"Graft Size and Patient Age are Predictors of Early Revision Following ACL Reconstruction with Hamstring Autograft" included authors from Duke Sports Medicine: Robert A. Magnussen, MD, Ryenn L. West, BS, Alison P. Toth, MD, Durham, North Carolina; Dean C. Taylor, MD, William E. Garrett Jr., MD, PhD, and John Todd R. Lawrence, MD, PhD, from Children's Hospital of Philadelphia, Philadelphia, Pennsylvania.

Continued on page 10

Prestigious Research Awards Presented at Annual Meeting continued—

Cabaud Memorial Award



Given to the best paper researching hard or soft tissue biology, this award is selected by the AOSSM Awards

Subcommittee with awardees receiving \$2000. This year's winning paper is "The Effect of Axial Tibial Rotation and Varus Loading on ACL Strain During a Simulated Jump Landing," by authors Youkeun K. Oh, PhD, University of Michigan, David B. Lipps, MS, James A. Ashton-Miller, PhD, and Edward J. Wojtyls, MD.

Excellence in Research Award



This award is selected by the AOSSM Awards Subcommittee with principal investigators

receiving \$2,000. This year's winning paper was from the University of Michigan and titled, "Surgical Treatment of Femoroacetabular Impingement Improves Hip Kinematics: A Computer-Assisted Model." Authors included: Asheesh Bedi, MD, Mark Dolan, MD, Iftach Hetsroni, MD, Erin Magennis, MSc, Joseph Lipman, MSE, Robert Buly, MD, and Bryan T. Kelly, MD.

O'Donoghue Sports Injury Research Award



This award is given annually to the best overall paper that deals with clinical based research or human in-vivo research.

In 2011 it is given to authors: Kanu Goyal, MD, University Pittsburgh Medical Center, Scott Tashman, PhD, Joon Wang, MD, Kang Li, PhD, Albert Lin, MD, Xudong Zhang, PhD, and Christopher D. Harner, MD, for their paper, "In Vivo Analysis of the Isolated Posterior Cruciate Ligament-Deficient Knee During Functional Activities." The awardee is selected by the AOSSM Awards Subcommittee with recipients receiving \$2,000.

The NCAA Research Award

This award is given to the best paper submitted that pertains to the health, safety, and well-being of collegiate student-athletes. The award is selected by the AOSSM Awards Subcommittee with awardees receiving \$2000. This year's winning paper is from Washington University doctors: Robert H. Brophy, MD, Jeffrey J. Nepple, MD, Matthew J. Matava, MD, and Rick W. Wright, MD. The paper is titled: "Previous Knee Surgery a Risk Factor for Knee Articular Cartilage Lesions Among College Football Athletes in the NFL Combine."

Hughston Award



This year's recipients of the Hughston Award are Katrina Nilsson-Helander, MD, Karin G. Silbernagel, PhD,

PT, ATC, Roland Thomee, Eva Faxen, Nicklas Olsson, Bengt I. Eriksson, and Jon Karlsson, MD, PhD, for their paper, "Acute Achilles Tendon Rupture: A Randomized, Controlled Study Comparing Surgical and Nonsurgical Treatments Using Validated Outcome Measures." The award is given to the most outstanding paper published in the *American Journal of Sports Medicine*

and is chosen by a panel of *AJSM* editors and reviewers and receives \$5,000.

AJSM Systematic Review Award

The winning paper is chosen by a panel of *AJSM* editors and reviewers and receives \$5,000. Carmen E. Quatman, Carolyn M. Hettrich, MD, Laura C. Schmitt, MD, and Kurt P. Spindler, MD, received the award for their work entitled, "The Clinical Utility and Diagnostic Performance of MRI for Identification of Early and Advanced Knee Osteoarthritis: A Systematic Review."

T. David Sisk Award for Research Excellence in Basic Science



The winners were selected from the best papers in basic science submitted to *Sports Health: A Multidisciplinary*

Approach. The award will include a \$2,500 cash prize and a plaque. This year's winner in basic science is "The Basic Science of Articular Cartilage: Structure, Composition, and Function." Authors are Alice J. Sophia Fox, MD, Asheesh Bedi, MD, and Scott A. Rodeo, MD.

T. David Sisk Award for Research Excellence in Clinical Science

The winners were selected from the best papers in clinical science submitted to *Sports Health: A Multidisciplinary Approach*. The award will include a \$2,500 cash prize and a plaque. This year's recipient is Jeffrey S. Kutcher, MD, for his paper, "Management of the Complicated Sports Concussion Patient."

For more information on AOSSM research projects and awards, please visit www.sportsmed.org and click on the "Research" tab or contact Bart Mann, Director of Research at bart@aossm.org.

Self Assessment 2011 Now Available

The new version of Self Assessment is now available. It includes 125 new questions, provides Maintenance of Certification credit, and is online only. To purchase your Self Assessment, visit the website at www.sportsmed.org and click on “Medical Professionals” then “Educational Resources.” For any additional questions, contact Susan Brown Zahn at susan@aossm.org.



AJSM Top of the Class Again

Thomson Reuters has just released its 2010 Journal Citation Reports, and the *American Journal of Sports Medicine's* impact factor has increased to 3.821—up from 3.605—in the two year index. *AJSM's* impact factor is second among the 61 orthopaedic journals and fifth among the 79 sports science journals in the two year index.

More impressive, *AJSM's* ranking in the five year is 4.801. This is the highest among all orthopaedic journals and second among all sports science journals. This reflects both the quality and longevity of *AJSM* articles over the past five years. Congratulations to executive editor, Bruce Reider, MD, and the rest of the *AJSM* editorial team and staff!



Submit Proposals for AOSSM 2012 Annual Meeting Instructional Courses Online

AOSSM is currently accepting instructional course proposals for the AOSSM 2012 Annual Meeting in Baltimore, Maryland, July 12–15, 2012. Please visit the AOSSM website at www.sportsmed.org to submit a proposal online. Submissions require a course title, course description, and confirmed faculty. Deadline is August 31, 2011. Questions can be directed to Patricia Kovach at pat@aossm.org.

Got news we could use? We want to hear from you!

Sports Medicine Update welcomes members' news items (e.g., awards, academic appointments). Send information to Lisa Weisenberger, AOSSM Director of Communications, at lisa@aossm.org, fax to 847/292-4905, or call the Society office at 847/292-4900. High resolution photos are always welcomed.

2012 AOSSM MEMBERSHIP DUES

2012 AOSSM membership dues will be sent soon. Due to the increasing cost of postage, the Society Office has decided to send notices about dues via e-mail. Remember that dues are to be paid within 30 days of receiving your notice. You should see your dues notice around August 1 in your inbox. Please contact the Society Office if you have recently changed your e-mail or wish to have it sent to a different address. Any questions can be sent to Debbie Turkowski, Manager, Member Services at Debbie@aossm.org.

SOCIETY NEWS

Check Out the New AOSSM Website >>

Visit www.sportsmed.org to see a new easier to use AOSSM website. You can now easily register for upcoming meetings, pay dues, order and view patient materials, and so much more!

Are You a Fan or a Follower?

AOSSM, *AJSM*, and *Sports Health* are now all on Facebook. Learn about the latest news and articles from *AJSM* and *Sports Health*. Stay up to date on Society happenings and deadlines at AOSSM. Join the conversation and become a fan or follower:

Facebook

- www.facebook.com/AOSSM
- www.facebook.com/American-Journal-of-Sports-Medicine
- www.facebook.com/SportsHealthJournal
- www.facebook.com/STOPSportsInjuries

Twitter

- [Twitter.com/AOSSM_SportsMed](https://twitter.com/AOSSM_SportsMed)
- [Twitter.com/Sports_Health](https://twitter.com/Sports_Health)
- [Twitter.com/SportsSafety](https://twitter.com/SportsSafety)

NAMES IN THE NEWS



Schickendantz Garners New Position



The Cleveland Clinic recently announced that AOSSM member, Mark Schickendantz, MD, has been named Director of the Center for Sports Health. Dr. Schickendantz has been a team physician for the Cleveland Indians since 1992, serving as Head Team Physician since 2003. He is also Head Team Physician for the Cleveland Browns, serving in that role since 2010. He is currently President of the Major League Baseball (MLB) Team Physicians Association and a member of the MLB Medical Advisory Committee. Congratulations!

Laurencin Elected to Prestigious Academy

AOSSM member and bioengineering expert, Dr. Cato T. Laurencin, Vice President for Health Affairs at the University of Connecticut Health Center and Dean of the UConn School of Medicine, was recently elected to the African Academy of Sciences, a prestigious organization that honors African science and technology leaders and promotes science-led development in the continent. Since its founding in 1986, membership has been extended to scientists throughout the world. Laurencin is one of three Americans who are fellows of the Academy. Selection is based on academic and research achievements, as well as the impact fellows have made in their respective fields.

Lower Reimbursement for Menisectomies Confirmed

By William Beach, MD, Chair, Health Policy and Ethics Committee

The Five Year Review process for the Center of Medicare and Medicaid Services (CMS) generates a list of codes that are both frequent and potentially over-valued, or rarely under-valued. The review targeted three high frequency arthroscopic codes:

- 29826 (Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with or without coracoacromial release),
- 29880 (Arthroscopy, knee, surgical; with meniscectomy [medial AND lateral, including any meniscal shaving]),
- and 29881 (Arthroscopy, knee, surgical; with meniscectomy [medial OR lateral, including any meniscal shaving]).

29826 was noted by CMS to be listed with other codes over the 75 percent threshold, thus threatening to consider it a part of the other codes. Because it is listed with several other codes the decision was made to make 29826 an “add-on” code. Thus for 2012, 29826 = acromioplasty, must be added to an index code/procedure. Example: 29827, (Arthroscopy, shoulder, surgical; with rotator cuff repair) would be the index code and 29826 would be the secondary, add-on code. No modifier will be required for 29826 as it will always be an add-on code and will not be able to be listed alone. Unfortunately, the previous RVU level has been decreased to 3.00 (pending the CMS final rule for 2012). The RVU work value was previously 9.16. Since it is a second procedure many private insurers would reimburse 50 percent of the work value or 4.58 RVUs. CMS on the other hand reimburses by subtracting



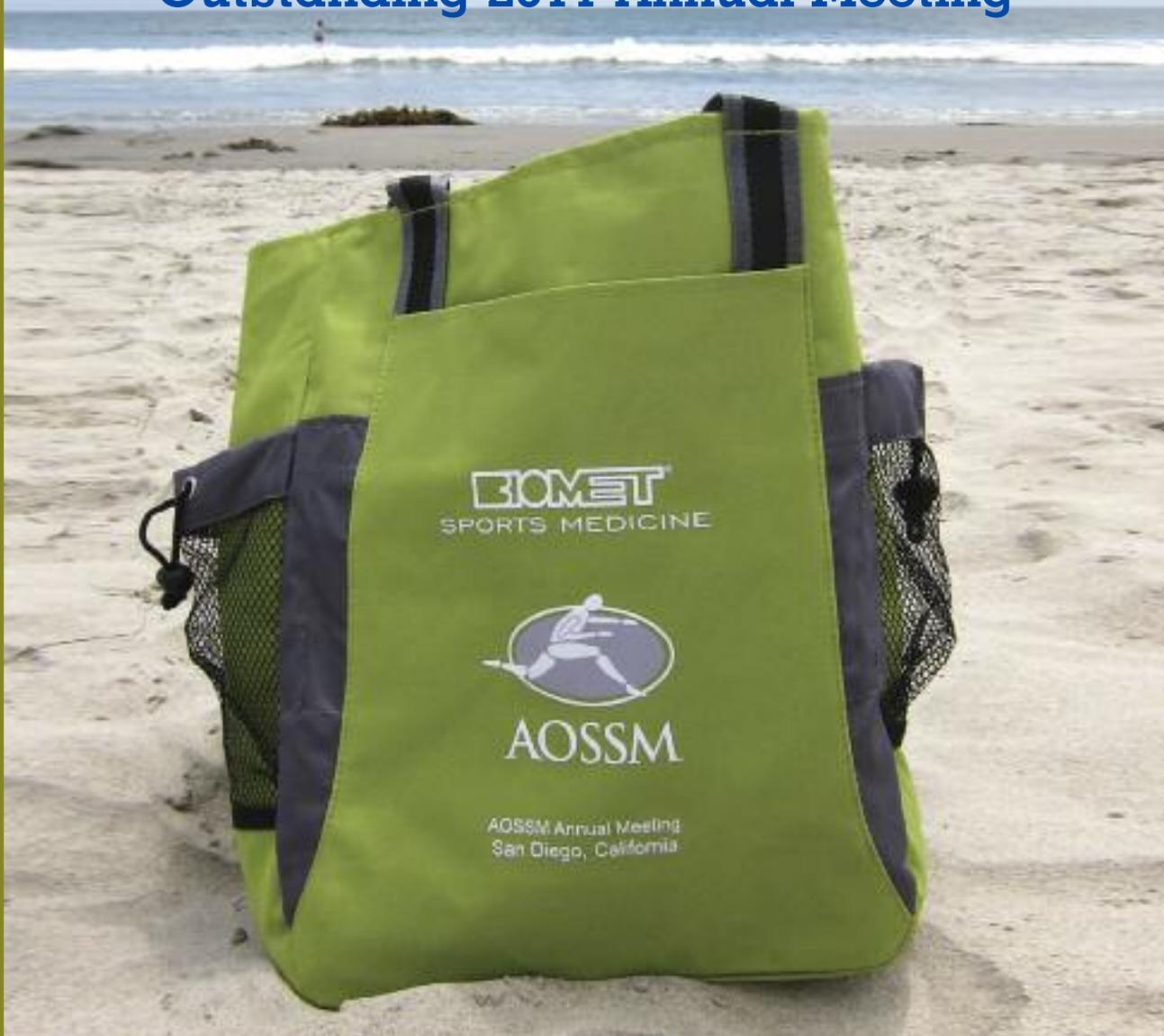
the value of a diagnostic arthroscopy from the procedure in question. 29805 (Arthroscopy, shoulder, diagnostic, with or without synovial biopsy [separate procedure]) has a work RVU of 6.03. Thus the value of 29826 for CMS is $9.16 - 6.03 = 3.13$. Despite the AAOS/AOSSM/AANA representatives passionate presentation the Relative Value Update Committee (RUC) would not be swayed to either the 3.13 or even a more appropriate 4.58 value.

Similar decreases have affected 29880 and 29881. Because of two independent

surveys of times and intensities, the previous levels of reimbursement were not supported. The RUC made two important decisions: 1) to decrease the value of 29880 and 29881 by approximately 20 percent (the final value will be determined in the 2011 Final Rule) and 2) bundle 29877 with both 29880 and 29881. For 2012, we will receive lower reimbursement for arthroscopic meniscectomy and chondroplasty/debridement and it will be included with any/all meniscectomy(s).



Sand, Sun and Spectacular Education Lead to Outstanding 2011 Annual Meeting



AOSSM returned to San Diego for our 2011 Annual Meeting with great success! More than 1,200 attendees joined colleagues and their families for four days of sun, camaraderie, and education from some of the best sports medicine specialists in the world.

Continued on page 15



The meeting began on Wednesday, July 6 with a research pre-conference workshop on clinical outcomes. More than 100 individuals attended and learned about cutting-edge clinical and evidence-based research principles, methods, and practice strategies. Keynote speaker, Mohit Bhandari, MD, McMaster University in Ontario, Canada, captivated audience members with his talks on clinical research's importance and why evidence-based medicine can be a good guide for sports medicine practices.

Wednesday also included a pre-conference workshop, in collaboration with SPTS, on bringing the team approach to sports medicine. Speakers highlighted management strategies for several types of injuries and how to safely return athletes to the playing field.

The meeting began in earnest early Thursday morning with eight instructional courses on a variety of topics from concussion to foot and ankle injuries to coding to masters athlete issues. AOSSM President, Robert A. Stanton, MD, and Program Chair, Capt. Medical Corps, U.S. Navy, Marlene DeMaio, MD, welcomed everyone to the official start of the meeting

Photos from the Annual Meeting are available for viewing at <http://www.photography.com/>. Search for AOSSM under events and then create a new account or if you viewed pictures from the 2010 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.

Continued on page 16



and began the morning's session with a discussion on ACL reconstruction outcomes. A variety of other topics were presented, including patellar instability, avoiding knee surgery complications, concussion, and pediatric fractures.

During the business meeting on Thursday, new members were accepted and two individuals confirmed as new additions to the Board of Directors, including:

- **Jo A. Hannafin, MD, PhD**
Vice President
- **Matthew Provencher, MD**
Member-at-Large

Patricia Kolowich, MD, was also elected to the Medical Publishing Board of Trustees.

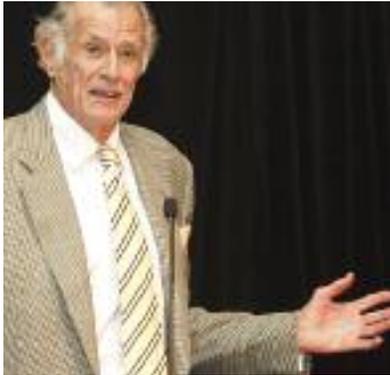
One of the biggest highlights of the day was the afternoon live surgical demonstrations on the shoulder and elbow. More than 200 people attended the workshop and were able to learn new surgical skills and tips from top professionals, including Russell F. Warren, MD, Anthony A. Romeo, MD, Eric C. McCarty, MD, Felix H. Savoie III, MD, James R. Andrews, MD, Neal S. ElAttrache, Marc R. Safran, MD, Champ L. Baker Jr., MD, William N. Levine, MD, Matthew L. Provencher, MD, John E. Kuhn, MD, and Richard K. N. Ryu, MD. AOSSM thanks Arthrex, ConMed Linvatec, DePuy Mitek Inc., Stryker, Smith & Nephew, MTF, and RTI for their educational grants or in-kind support for this workshop.

The first day concluded with the annual Welcome Reception held poolside at the Manchester Grand Hyatt, and supported by Breg, Inc. Outstanding food and beverages were served highlighting typical California cuisine along with games for the kids.

Friday's session began with the presentation of the O'Donoghue Award to Kanu Goyal, MD, University of Pittsburgh Medical Center, for his paper, "In Vivo Analysis of the Isolated Posterior Cruciate Ligament-Deficient Knee During Functional Activities." The rest of the day's presentations focused on shoulder outcomes, foot and ankle issues, and the masters athlete.

Continued on page 17





In addition, AOSSM inducted Clarence L. Shields, MD, Sandy Kirkley, MD, FRCSC, and René Verdonk, MD, into the Hall of Fame. The Thomas A. Brady Award was given to John A. Bergfeld, MD, Cleveland Clinic, and the George D. Rovere Award was presented to Robert A. Arciero, MD, University of Connecticut. Dr. Stanton's presidential address highlighted his career and how chance events in life can help create new

Debby, then presented the presidential medallion and pin to incoming President, Peter A. Indelicato, MD, and Shannon Bishop Brouillette, signifying Dr. Indelicato's induction as the 2011–2012 AOSSM President.

Awards were also given for outstanding posters to the following individuals:

- **1st Place (\$750):** “Changes in Serum Biomarkers of Cartilage Turnover Following ACL Reconstruction” by Steven J. Svoboda, MD, Travis Harvey, PhD, William Brechue, PhD, Brett D. Owens, MD, and Kenneth L. Cameron, PhD, ATC
- **2nd Place (\$500):** “The Chondrotoxicity of Single-Dose Local Anesthetic Injections” by Jason L. Dragoo, MD, and Hilary Braun, BA
- **3rd Place (\$250):** “Gender Helps Determine Peak ACL Strain” by David B. Lipps, MS, Youkeun Oh, MS, James A. Ashton-Miller, PhD, and Edward M. Wojtys, MD

The day ended with a fun-filled event at the San Diego Children's Museum. This newly redesigned museum allowed kids of all ages to experience painting, rope climbing, bouncy tube, bubble blowing, drawing, and other interactive attractions. With freshly-made mini doughnuts and special cheesecake treats on a stick, everyone finished off the evening happy and exhausted. AOSSM thanks BioMimetic for their support of the family event.

The meeting concluded on Sunday with intriguing presentations from the NATA Exchange Lecturer, Thomas Weidner, PhD, ATC, FNATA, on enhancing clinical practice. The AMSSM Exchange Lecture was given by Eugene S. Wong, MD, on depression and anxiety. In addition, John Churf, MD, MPH, MBA, presented a lecture on critical, practice-based information.

AOSSM would like to thank all of our sponsors and exhibitors for their ongoing Annual Meeting support. The next AOSSM Annual Meeting will be in Baltimore, Maryland, July 12–15, 2012. See you there!

Continued on page 18

The Society strives to provide you with the best educational experience possible. You should have received an e-mail from the Society asking for your comments on the meeting and how we can improve for next year. Please be sure to take a few minutes to fill this evaluation out, so we can continue to make our meetings the best in sports medicine. You should also be receiving an e-mail from the Society regarding your CME credit by mid-August. Thank you!



opportunities if you keep your eyes open to them. He also discussed AOSSM's strategic plan and the future of the Society.

Members were on their own Friday afternoon to explore San Diego and all it had to offer from the zoo and SeaWorld to Coronado Beach. More than 80 individuals decided to take in a round of golf at the Coronado Municipal Golf Course for the 22st Annual Golf Tournament, supported by DJO Global.

After a relaxing Friday afternoon, attendees flocked back into the Manchester Ballroom on Saturday morning for engaging discussions and presentations on hip impingement issues, maintenance of certification issues, and what the office of the future will look like. One of the biggest highlights of the meeting occurred on Saturday with Presidential Guest Speaker, Frank Deford's hilarious speech, “Sports: The Hype and the Hypocrisy.” His talk on his adventures in sports reporting was insightful and funny for all who took part.

Following the speech, Lyle Micheli, MD, Boston Children's Hospital, received the Robert E. Leach, MD, Mr. Sports Medicine Award, one of the Society's highest honors, for his outstanding career in pediatric sports medicine. Dr. Stanton and his wife,



Thank You Committee Members!

The AOSSM Board of Directors thanks these committee members for their contributions to the Society's goals and mission. Their terms of service expired in July 2011.

Education Committee

Anikar Chhabra, MD
George Davies, DPT
Bradley Nelson, MD
Jon Sekiya, MD

Enduring Education Committee

Thomas DeBerardino, MD
Warren Dunn, MD

Fellowship Match Committee

Doug Brown, MD
John Richmond, MD

Hall of Fame Committee

Patricia A. Kolowich, MD
George Mauerma, MD
Ed Wojtys, MD

Public Relations Committee

Robert Gray, ATC
Matthew Matava, MD
Brian Sennett, MD
John Uribe, MD

Publications Committee

Grant Jones, MD
William Levine, MD
Brian Wolf, MD

Research Committee

John Albright, MD
Lee Kaplan, MD
Jason Koh, MD
Christian Latterman, MD
Benjamin Ma, MD
Matthew Provencher, MD

Self Assessment Committee

Craig Bottoni, MD
Anikar Chhabra, MD
John Graham Jr., MD
Eric McCarty, MD
Leroy McCarty, MD
Scott Montgomery, MD
Ron Navarro, MD
Bradley Nelson, MD
Matthew Shapiro, MD
Nikhil Verma, MD

Stop Sports Injuries Steering Committee

Evan Ekman, MD
Mary Lloyd Ireland, MD

David Martin, MD
Daniel Matthews, MD
Rick Wright, MD

Technology Committee

Ammar Anbari, MD
Fred Flandry, MD
Armando Vidal, MD

Traveling Fellowship Committee

Thomas DeBerardino, MD

2011 Outgoing Council of Delegates

Christopher S. Ahmad, MD
2008–11, New York

A. Herbert Alexander, MD
2005–11, Idaho

Stephen Kenji Aoki, MD
2008–11, Utah

Kyle R. Blickenstaff, MD
2005–11, Arizona

Joseph A. Bosco III, MD
2008–11, New York

Charles A. Bush-Joseph, MD
2005–11, Illinois

Steven Chudik, MD
2008–11, Illinois

Nancy M. Cummings, MD
2008–11, Maine

Marlene DeMaio, MD
2000–11, MIL

Patrick J. DeMeo, MD
2008–11, Pennsylvania

Frederick C. Flandry, MD, FACS
2008–11, Georgia

Stephen J. Franzino, MD
2008–11, California

Robin Gehrmann, MD
2008–11, New Jersey

Charles E. Giangarra, MD
2005–11, West Virginia

Randeep Kalhon, MD
2008–11, Delaware

James S. Keene, MD
2005–11, Wisconsin

Anne M. Kelly, MD
2008–11, New York

Scott D. Kuiper, MD
2008–11, Kentucky

Brick A. Lantz, MD
2005–11, Oregon

Edward R. McDevitt, MD
2008–11, Maryland

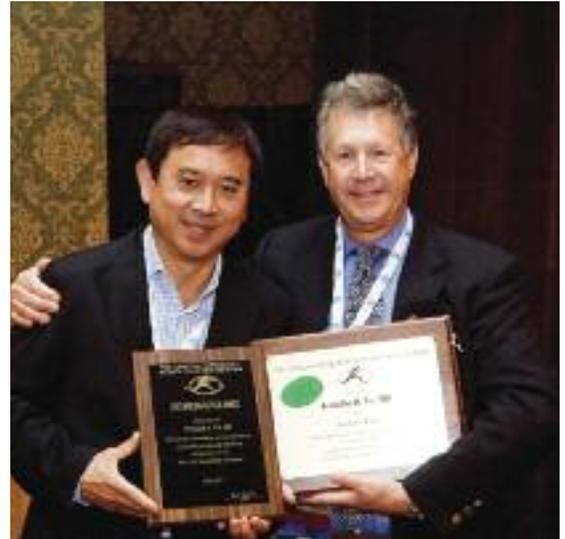
Donald W. McGinnis
2008–11, Oklahoma

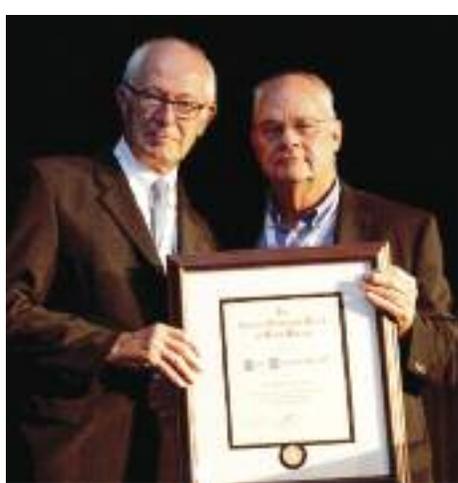
Thomas C. Merchant, MD
2008–11, California

Michael W. Moser, MD
2008–11, Florida

George A. Paletta, MD
2008–11, Missouri

Barry B. Phillips, MD
2008–11, Tennessee





- Sherwin S. W. Ho, MD, BA**
Illinois
- Rudolf Hoellrich, MD**
Oregon
- Laith M. Jazrawi, MD**
New York
- Keith Kenter, MD – 2nd Term**
Ohio
- W. Ben Kibler, MD**
Kentucky
- Kirt M. Kimball, MD**
Utah
- Michael Kissenberth, MD**
South Carolina
- David Leffers, MD**
Florida
- Peter B. MacDonald, MD, FRCS**
Canada
- Michael D. Maloney, MD**
New York
- E. Barry McDonough, MD**
West Virginia
- Jennifer R. Miller, MD**
Idaho
- Douglas J. Moran, MD**
New Hampshire
- Bradley J. Nelson, MD – 2nd Term**
Minnesota
- Claude E. Nichols III, MD – 2nd Term**
Vermont
- Brett D. Owens, MD**
MIL
- Mark S. Pascale, MD**
Oklahoma
- Felix H. (Buddy) Savoie III, MD – 2nd Term**
Louisiana
- Todd A. Schmidt, MD**
Georgia
- Wayne J. Sebastianelli, MD**
Pennsylvania
- Mark F. Sherman, MD**
New York
- Domenick J. Sisto, MD**
California
- Pietro Tonino, MD – 2nd Term**
Illinois
- Daniel M. Veltri, MD – 2nd Term**
Connecticut
- Winston J. Warme, MD**
Washington
- Rick D. Wilkerson, DO**
Iowa
- Rick W. Wright, MD**
Missouri

- Daniel J. Prohaska, MD**
2008–11, Kansas
- Lars C. Richardson, MD**
2008–11, Massachusetts
- Mark Ritter, MD**
2008–11, Indiana
- John-Paul H. Rue, MD**
2008–11, MIL
- Marc R. Safran, MD**
2005–11, California
- F. Harlan Selesnick, MD**
2008–11, Florida
- Nicholas A. Sgaglione, MD**
2008–11, New York
- Mark B. Silbey, MD**
2005–11, New Hampshire
- Steven B. Singleton, MD**
2008–11, South Carolina
- Kurt P. Spindler, MD**
2008–11, Tennessee
- Timothy N. Taft, MD**
2008–11, North Carolina
- John S. Theodoropoulos, MD, FRCS**
2008–11, Canada
- Edwin M. Tingstad, MD**
2005–11, Washington
- Stephen C. Weber, MD**
2005–11, California
- E. Carey Windler, MD**
2008–11, Texas
- Brian R. Wolf, MD, MS**
2008–11, Iowa
- John W. Xerogeanes, MD**
2008–11, Georgia

2012 Incoming Council of Delegates

- Steven K. Ahlfeld, MD**
Indiana
- Damian Andrisani, MD**
Delaware
- Frederick M. Azar, MD**
Tennessee
- Harry A. Bade III, MD**
New Jersey
- James M. Banovetz, MD, PhD**
Wisconsin
- William R. Beach, MD – 2nd Term**
Virginia
- Barry P. Boden, MD**
Maryland
- Kelton M. Burbank Jr., MD**
Massachusetts
- Walton W. Curl, MD**
North Carolina
- Tal S. David, MD**
California
- Hussein A. Elkousy, MD**
Texas
- Gregory J. Folsom, MD**
Kansas
- Spencer H. Guinn, MD**
Arizona



Upcoming Meetings and Courses

For more information and to register, visit www.sportsmed.org and click on the "Education and Meetings" tab.

Advanced Team Physician Course

December 1-4, 2011
San Diego, California

Specialty Day

February 11, 2012
San Francisco, California

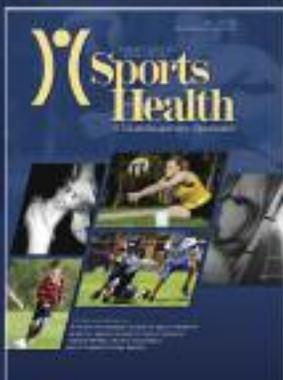
Keep Your Edge: Hockey Sports Medicine in 2012

Toronto, Canada
August 24-26, 2012



Exclusive AOSSM Member Gift Subscription for ATCs

\$45
for 1 year/
6 issues



AOSSM members can now purchase *Sports Health: A Multidisciplinary Approach* gift subscriptions for trainers they work with. The number of subscriptions you may sponsor is unlimited. All you need to do is go to

www.sportsmed.org/shj

and complete the subscription form providing the recipient's mailing information.

Sports Health

30% off the list price





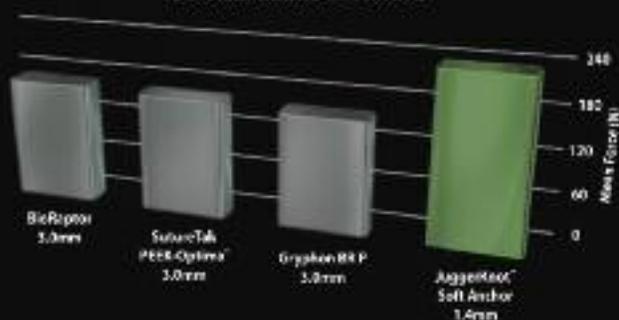
It's small. It's strong.^{1,2} And it's all suture.

Size is **not** indicative of strength! Ants can carry more than 50 times their body weight. The 1.4mm JuggerKnot™ Soft Anchor has been shown to be stronger than comparable 3mm anchors.^{1,2} The JuggerKnot™ Soft Anchor represents the next generation of suture anchor technology. This 1.4mm anchor is completely suture-based and the first of its kind.

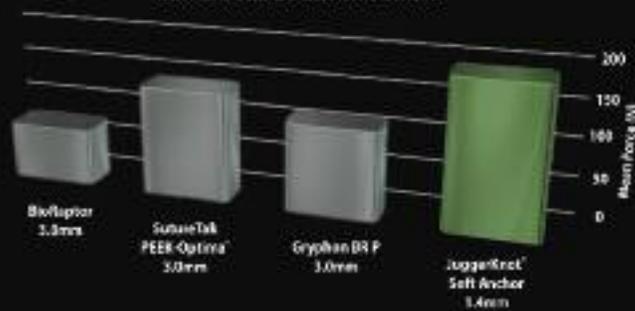


JuggerKnot™
SOFT ANCHOR

Cortical Loads to Failure^{1,2}



Cancellous Loads to Failure^{1,2}



Biologics • Bracing • Microfixation • Orthopedics • Osteobiologics • Spine • **Sports Medicine** • Trauma • 3i

1. Barber FA, Herber MA, Beavis RC, and Oro TB. "Suture Anchor Materials, Eyelets, and Designs Update 2008" *Arthroscopy* Vol. 24, No. 8 pp 899-907, 2008

2. Barber FA, Herbert WA, Hapa O, Rapley JH, Barber CA, Bynum JA, Hmack SA. "Suture Anchor Update 2010" *Arthroscopy* 2010; In Press.

For indications, risks and warnings, visit:

biometsportsmedicine.com • 800.348.9500 x 1501

All trademarks herein are the property of Biomet, Inc. or its subsidiaries unless otherwise indicated. SutureTak™ is a trademark of Arthrex, Inc. BioRaptor™ is a trademark of Smith & Nephew. Gryphon™ is a trademark of DePuy.

BIOMET®
SPORTS MEDICINE
One Surgeon. One Patient.™





Sports Medicine Update

AOSSM
6300 North River Road
Suite 500
Rosemont, IL 60018



AOSSM Supporters

AOSSM gratefully acknowledges the following companies for their generous support this year:

Elite Supporter

(\$100,000 and Above)



Major Supporter

(\$75,000-\$99,999)



Contributor

(up to \$24,999)

Ferring Pharmaceuticals
LifeNet Health*

*AOSSM gratefully acknowledges educational grants or in-kind support from these companies for the AOSSM 2011 Annual Meeting.



THANK YOU

AOSSM thanks Biomet for their generous support of *Sports Medicine Update*.

