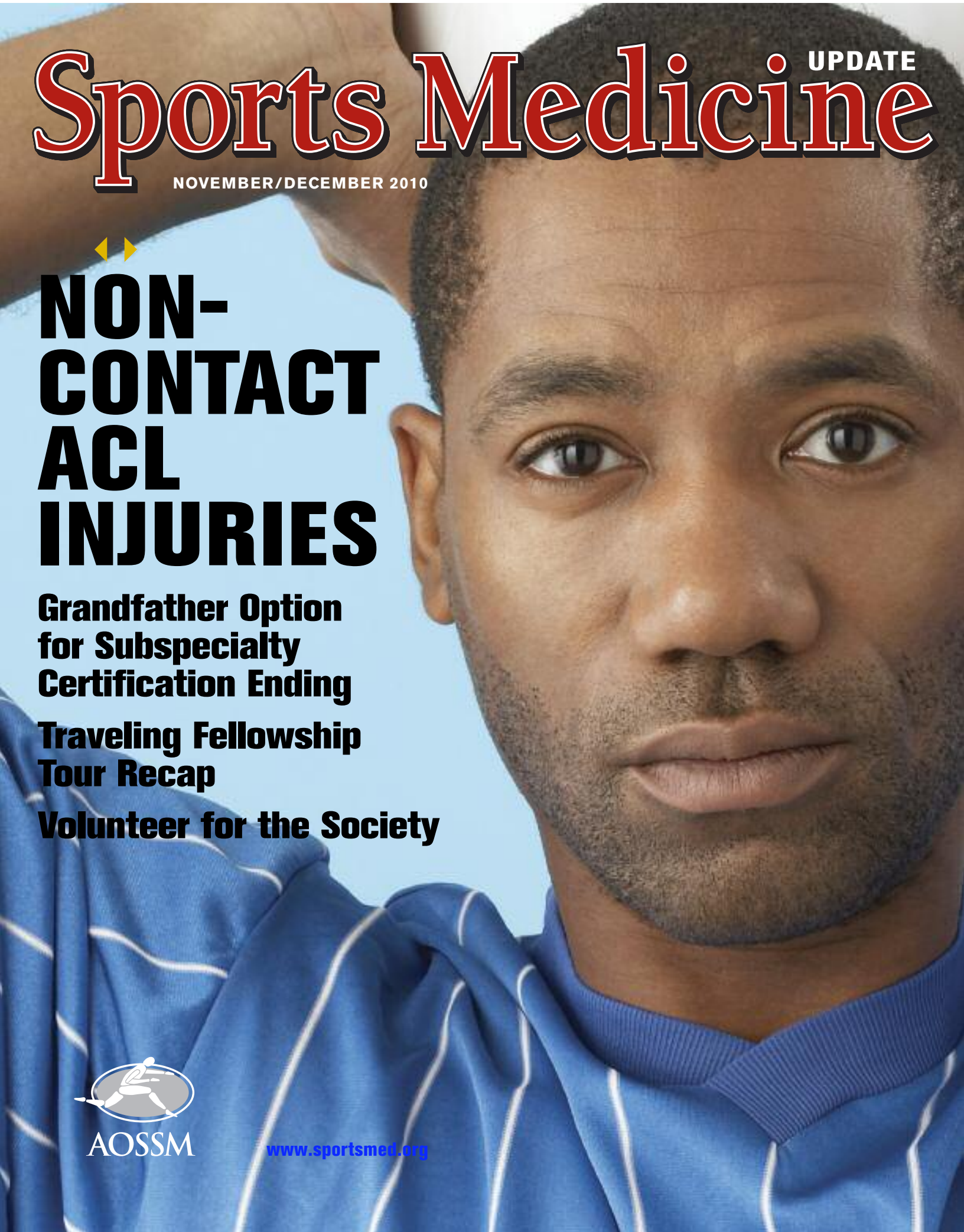
NEWSLETTER OF THE AMERICAN ORTHOPAEDIC SOCIETY FOR SPORTS MEDICINE

Sports Medicine UPDATE

NOVEMBER/DECEMBER 2010



NON-CONTACT ACL INJURIES

Grandfather Option for Subspecialty Certification Ending

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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 Web site 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.

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Robert A. Stanton, MD

SPORTS MEDICINE IS A TEAM ENDEAVOR, and our Society has worked hard over the years to strengthen and expand the interdisciplinary nature of the profession. *Sports Health: A Multidisciplinary Approach,* under the editorial guidance of Ed Wojtys, MD, is emerging as not just a strong benefit for AOSSM members, but also an invaluable educational resource for our colleagues in other professions. Several recent developments are especially worth noting for their clinical significance, as well as for their benefit to you as members.

Concussion Data

The November/December issue of *Sports Health: A Multidisciplinary Approach* generated considerable attention with the publication of *Twelve Years of National Football League Concussion Data.* Concussion is one of the pre-eminent issues in all of contact sports, and this epidemiological study contains the most comprehensive and expansive data to date on this issue, covering two successive 6-year periods between 1996 and 2007. This is important data, and the authors' decision to publish it in *Sports Health* is a testament to the publication's multidisciplinary reach through its 25,000 readers and its reputation as a rigorous, balanced peer-reviewed journal.

T. David Sisk Excellence in Research Awards

Sports Health was launched to provide a broad scientific forum to debate the latest clinical science in sports medicine. This was the vision of the AOSSM Medical Publishing Board under the leadership of T. David Sisk, MD, and the concussion study is but one of many examples illustrating how *Sports Health* is fulfilling that vision. To help maintain that vision, the Society and the Medical Publishing Board have established the T. David Sisk Excellence in Research Awards in basic science, clinical science, and international papers. Each year, these three prestigious awards will be presented to the best paper in each category that was published in *Sports Health.*

Those who worked with or studied under David know that he had the most exacting standards for quality research and publication, and we want these awards to not just honor that spirit but to set the bar for quality education in *Sports Health* for the entire sports medicine community. David was a mentor and inspiration to me. It is a great honor to announce this award to commemorate his vision.

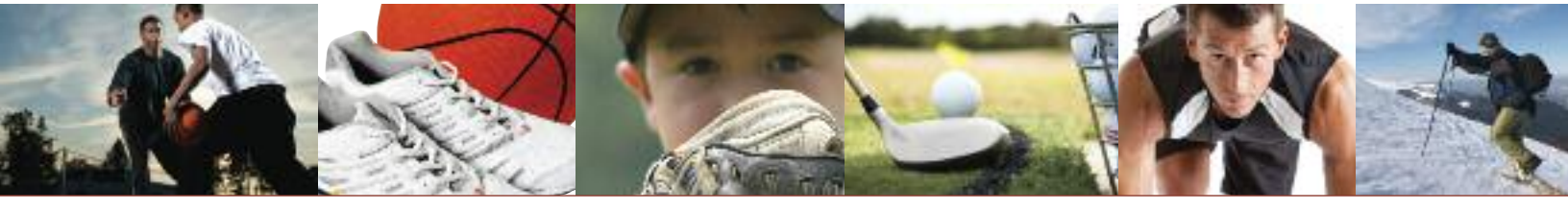
Sponsored Subscription for ATCs

As AOSSM members, you receive *Sports Health* as a benefit of membership, along with many other benefits, such as the *American Journal of Sports Medicine.* While athletic trainers may purchase *Sports Health* through the National Athletic Trainers' Association (NATA) at a special price, the cost is still an obstacle to many of these professionals at the community level, especially if they are not affiliated with a university that has extensive library science resources. Therefore, we are rolling out a program—exclusive to AOSSM members—in which you can purchase gift subscriptions for athletic trainers in your community at a fraction of the normal subscription price. The special rate of $45 for a 1-year subscription ($7.50 per issue) allows you to give one or more subscriptions to athletic trainers in your community. Just go to the AOSSM website and complete the online subscription form.

I can think of no better way to show your support for our ATC colleagues by providing them with current, scientific, and practical information in caring for athletes. A sponsored *Sports Health* subscription is an economical, thoughtful gift that will keep on giving each time the journal publishes a new issue.

As president, I take great satisfaction realizing that with only two years of publication, *Sports Health* is already fulfilling the vision of T. David Sisk and providing critical scientific information that will enable our profession to flourish. Recognizing and publishing the most important research will strengthen our clinical practice, and sharing that information with our ATC colleagues can only strengthen the fabric of the sports medicine community—a benefit not just for AOSSM, but for all!







NON-CONTACT ACL INJURIES: THE IMPORTANCE OF AXIAL COMPRESSIVE FORCES

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The key to optimizing ACL injury prevention strategies is an understanding of the mechanisms of non-contact ACL injury because the majority (70 percent) of ACL injuries fall into this category.[1,2] An important concept that has been overlooked until recently is that axial compressive forces on the lateral aspect of the joint are critical to the non-contact injury.[3,4] Thus, the purpose of this article is to describe how axial impulsive forces lead to ACL disruption by buckling the leg and that valgus forces and quadriceps' compressive-anterior forces may contribute to injury by lowering the force threshold for this disruption.

Continued on page 3

Axial/Compressive Forces

Hsu and Torg were the first to hypothesize that an axial compressive force on the knee may result in non-contact ACL injury.[5] Histologically, such compressive forces cause occult microcracks at the interface between cartilage and subchondral bone consistent with ACL bone bruises found on MRI after injury. In a cadaveric study, Meyer and colleagues[3] confirmed that the dominant factor leading to ACL failure was a compressive force acting on the posterior tibial slope which results in posterior displacement of the femoral condyle on the tibial plateau. These excessive joint compressive forces result primarily from inadequate absorption of the ground reaction forces by the lower leg during an impact landing, but both quadriceps and hamstring contraction likely contribute as well.

Current literature supports the concept that adding a compressive force to the knee joint, during the transition from non-weight-bearing to weight-bearing, results in anterior translation of the tibia, relative to the femur. Several authors have demonstrated that an axial weight-bearing compressive force combined with increased tibial posterior slope produces increased anterior tibial translation and force in knees with intact or deficient ACLs.

Whole Body Dynamics

When an individual performs a one-legged landing maneuver that results in a non-contact ACL injury, the joint segments of the leg are not effective in synergistically dampening ground reaction forces (GRFs) in an accordion-like fashion. A recent video-based analysis by Boden et al.[4] demonstrated key dynamic elements associated with non-contact ACL rupture and was able to identify a "safe" and a "provocative" single leg landing position (Figure 1). Although there was a trend toward less knee flexion in the injured athletes, this study revealed no significant difference in knee flexion angle between subjects and controls. Injured athletes initially contacted the ground with the hindfoot or with a flatfoot, whereas the athletes that did not rupture their ACL landed on their forefoot. This resulted in the ACL-ruptured subjects reaching the flatfoot position significantly sooner (50 percent) than controls.[4]

This shorter time span for deceleration increases the impulsive force acting on the knee. The impulsive force is directly related to the change in velocity and inversely related to the time required for the change. Thus, if it is assumed that both the injured and control athletes experience the same change in velocity and have the same mass, then the shorter stopping time for the injured athletes results in a higher impulsive force. An analogy is a head-on car accident. The crumple zone of a car, as well as a deployed airbag, slow the time of impact, resulting in lower forces reaching the driver. In addition, the reduced time for deceleration decreases the ability of the calf muscles to contract and perform



Figure 1. Initial foot contact with ground of an injured (A) and uninjured (B) athlete demonstrating dangerous (A) and safe (B) landing posture (Reprinted with permission from Boden BP, Torg JS, Knowles SB, Hewett TE. Video Analysis of Anterior Cruciate Ligament Injury Abnormalities in Hip and Ankle Kinematics. *Am J Sports Med.* 37(2): 252-259, 2009).

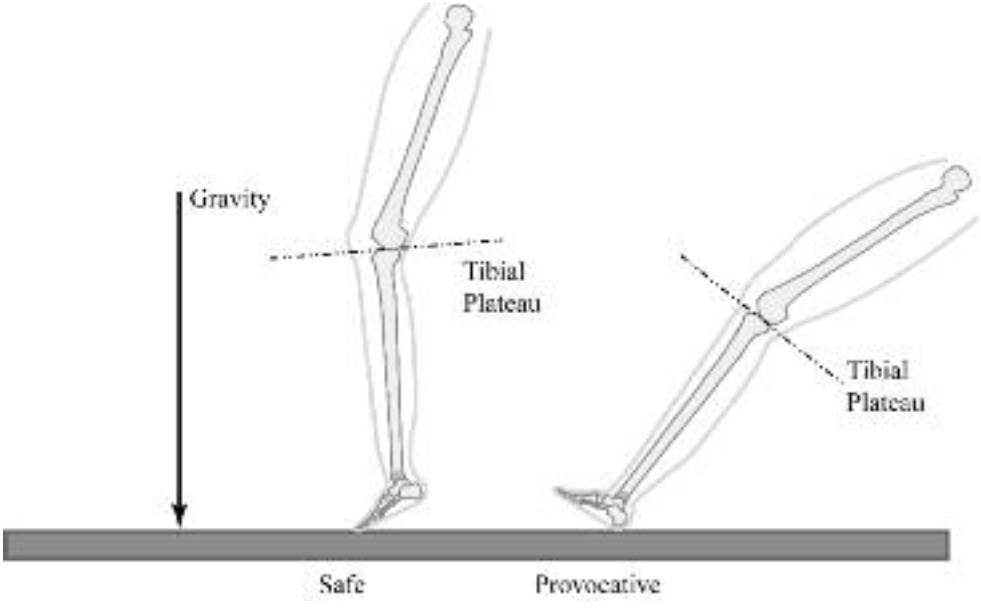


Figure 2. Illustration of tibial plateau as leg transitions from safe to provocative position demonstrates more vertical tibial plateau in the provocative position (Adapted with permission from Boden BP, Breit I, Sheehan FT. Tibiofemoral alignment: Contributing Factors to Noncontact Anterior Cruciate Ligament Injury. *J Bone Joint Surg Am.* 91: 2381-2389, 2009).

Continued on page 4

their force absorption function, allowing a greater percentage of the GRF to reach the knee. In contrast, the plantarflexed ankle in the safe position protects the ACL by increasing the time to dissipate the forces. Maximum peak vertical GRFs experienced by one-leg landings after jumping maneuvers have been estimated to range from two to eighteen times body weight. Since landing forces can easily exceed 3500 N, if the calf muscles do not absorb a large portion of these forces, the threshold to tear the ACL (2160 N) can easily be exceeded. Therefore landing on the forefoot may be one of the most crucial aspects of preventing ACL injury.

Tibiofemoral Kinematics

An MRI study in normal subjects by Boden et al. demonstrated that the limb alignment differences between the provocative position and the safe position tended to place the tibiofemoral joint into a position where ACL injury is more likely.[6] Specifically, as knee extension and hip flexion increases in the provocative position, the angle between the tibial plateau and the femoral shaft increases or changes from horizontal to more vertical (Figure 2). This effective increase in the posterior tibial plateau in the provocative position may promote an anterior tibial shift, thereby straining and potentially tearing the ACL. Decreasing the posterior tibial slope has been demonstrated to convert an anterior tibial thrust to a posterior tibial shift with an axial weight-bearing load.

The MRI study also reveals that as the leg moves toward the provocative position,[6] the point of contact on the lateral compartment moves closer to the sulcus on the lateral femoral condyle, and the point of contact moves from the rounder, posterior portion of the lateral femoral condyle to the flatter, anterior portion of the lateral femoral condyle, which has a greater radius of curvature. Hence, in the provocative position when contact occurs between the flatter anterior portion of the lateral femoral condyle and the convex lateral tibial plateau, sliding (pivot shift) is favored over rolling (Figure 3). In the safe position and with additional knee flexion, the contact point moves to the rounder posterior aspect of the lateral femoral condyle and rolling is favored over sliding. The anatomic configuration of the medial compartment of the knee (round condyle on a concave tibial plateau) is inherently more stable than the lateral compartment and favors rolling over sliding.

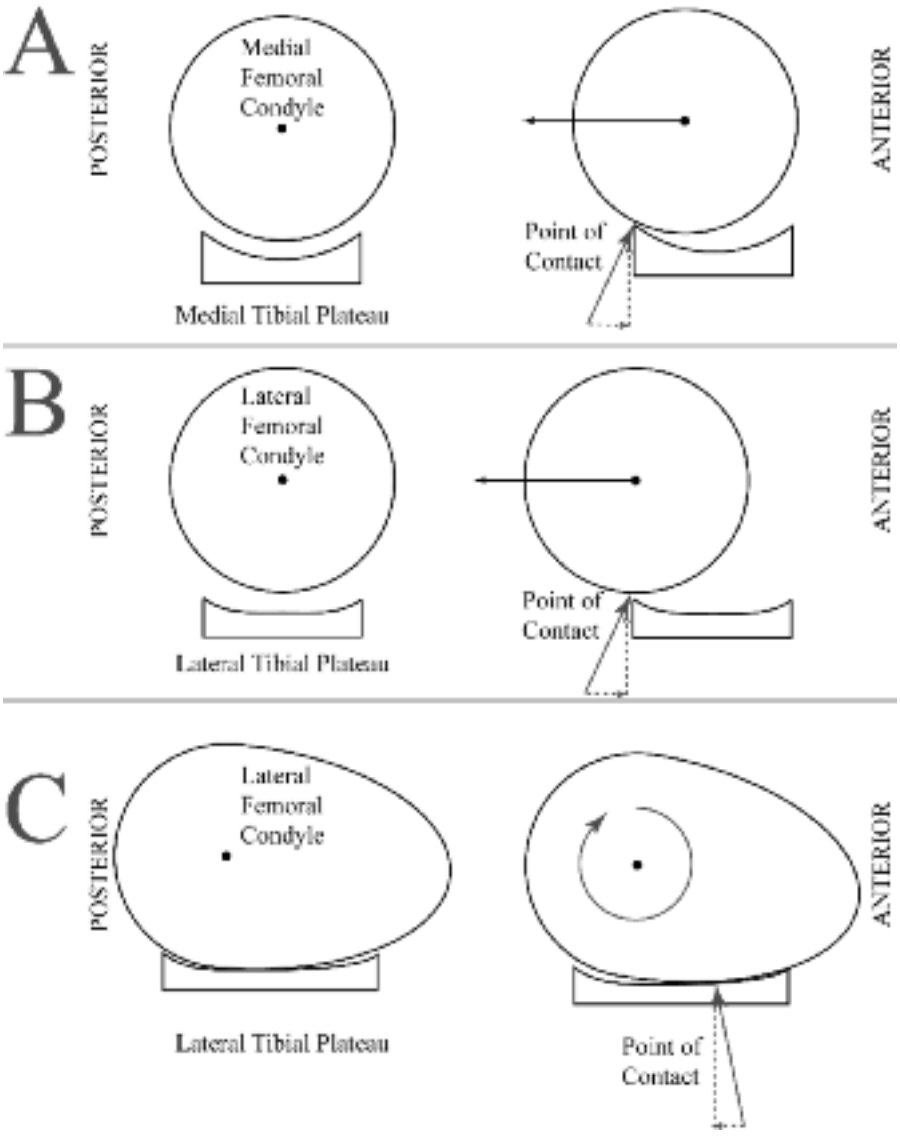


Figure 3. Illustration of (A) medial compartment demonstrates medial plateau is concave (left), thus the femur fits with the tibia as "ball" fitting into a "cup." The femur could slide relative to the tibia, but it runs up against the cup, so it tends to roll instead (right). (B) The cup is flatter on the lateral tibial plateau (left), resulting in lesser forces when the femur tries to slide (right) In this figure, the lateral femoral condyle is assumed circular, which it is not. C: In full extension, the anterior side of the femur, which is much flatter than the posterior aspect is in contact with the tibial plateau (left). Thus, there are two "flat" surfaces riding against each other. For the femur to roll on the tibia, its posterior side must rise, which costs energy. Thus, it is more likely to slide (right). (Reprinted with permission from Boden BP, Torg JS, Knowles SB, Hewett TE. Noncontact Anterior Cruciate Ligament Injuries: Mechanisms and Risk Factors. *JAAOS.* 18(9):520-527, 2010.)

Knee Abduction (Valgus)

The contribution of valgus forces to ACL disruption has been controversial. Markolf et al. demonstrated that valgus moment did not significantly load the ACL and that valgus rotation was not associated with ACL injury.[7] Further, valgus rotation associated with non-contact ACL injury, as documented in previous studies, may only occur post-injury.[1,4] However, Hewett et al.

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demonstrated a reduced risk of sustaining an ACL injury with training programs focused on lowering the knee abduction moments.[8] In addition, Chaudhari and Andriacchi[9] demonstrated that increasing the valgus alignment by 2° lowered the compressive load threshold for ACL injury by 1 body weight. Therefore the higher Q-angle and abduction moments in female athletes likely increase the axial forces on the lateral aspect of the knee lowering the threshold for ACL rupture, thus explaining why female athletes have a higher incidence of ACL injury than male athletes.

Quadriceps Force

Chappell et al. postulated that the anterior vector of the quadriceps is the primary contributing force to ACL injury, as it is one of the primary producers of anterior knee force at or near full knee extension.[10] However, due to the shallow angle of the patellar tendon (10 to 25 degrees at full extension),[11] the quadriceps primarily generates a compressive tibio-femoral joint force and the anterior force is only a minor component (Figure 4). The compressive vector of a quadriceps contraction is at least twice that of the anterior shear vector with the knee close to full extension.[11] In addition, the bone bruises seen on MRI after non-contact ACL injury are more consistent with an impaction injury than the application of excessive anterior force. Therefore, it is more likely that a quadriceps contraction contributes to ACL injury by increasing the compressive loads on the tibiofemoral joint rather than through the introduction of a large anterior force.



Figure 4. Figure demonstrating the angle of the patella tendon attaching to the tibial tubercle. Since the angle is low (less than 45°) the compressive vector (Fc) is larger than the anterior shear vector (Fas). (Reprinted with permission from Boden BP, Torg JS, Knowles SB, Hewett TE. Noncontact Anterior Cruciate Ligament Injuries: Mechanisms and Risk Factors. *JAAOS.* 18(9):520-527, 2010.)

Summary and Conclusions

In conclusion, the authors propose that the primary force resulting in non-contact ACL injury is an external impulsive axial force. The provocative position of initial ground contact in or close to a flatfooted position (reduced ankle plantarflexion) and increased hip flexion predisposes the knee to an ACL disruption by reducing the legs damping capabilities and by placing the lateral tibial compartment closer to the subluxed position. Knee abduction (valgus) also may play a role, especially in female athletes, by potentially reducing the compression force threshold to produce a non-contact ACL injury. While anterior shear forces from the quadriceps may play a role in disruption of the ACL, it is more likely that a quadriceps contraction lowers the axial threshold of injury by increasing the compressive force on the knee. Therefore, it is probable that the mechanism causing noncontact ACL injury simulates the pivot shift test in ACL deficient patients. Although further research is necessary to understand the importance of the varying components of ACL injury, the mechanism of non-contact ACL injury is becoming clearer and should result in enhanced preventive strategies.

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STOP Sports Injuries
Sprints Ahead to 2011

The STOP Sports Injuries campaign looks forward to great things in the future while looking back at an exciting year. In the few months since our spring launch, 13 national health organizations, 17 medical institutions, 50 sports medicine practices, and additional sports and recreation programs have joined the cause. The efforts of these groups are crucial in spreading the message across the country as we continue to grow in numbers. Thank you for the support! In keeping with this growth, we have planned additional tip sheets, including lacrosse, rowing, wrestling, figure skating, martial arts, and softball. Keep up-to-date on the release of these exciting new resources by connecting with STOP Sports Injuries on Facebook and Twitter. Please contact Joe Siebelts at joe@aossm.org with questions or for more information.

Community Involvement

New Supporters

The high school sports site SASports.com and sports medicine surgeons from the San Antonio Orthopaedic Group showed a commitment to keeping kids in the game by joining the STOP Sports Injuries campaign. At an area press conference on September 8, the two groups shared their goal of reaching out to the community with tips for young athletes to play safe and stay healthy. "The old adage 'No pain, no gain,' used with prior generations of athletes needs to be tempered, with a shift to one that says, 'listen to your body's warning signals,'" commented Brad Tolin, a sports medicine surgeon with the San Antonio Orthopaedic Group. The San Antonio Orthopaedic Group plans to distribute STOP Sports Injuries resources in their seven clinics, and both groups will share information on their Web sites.



Brad Tolin, sports medicine surgeon with the San Antonio Orthopaedic Group and STOP Sports Injuries supporter, speaks at press conference.

We also welcome these new supporters:

- Carondelet Orthopaedics, Kansas City, Missouri
- Gaston Rehab Associates, Inc., Gastonia, North Carolina
- MUSC Sports Medicine, Charleston, South Carolina
- Sports Medicine Associates of San Antonio, San Antonio, Texas

Expert Advice

Mike Mejia, founder and president of B.A.S.E. Sports Conditioning, Inc. and a STOP Sports Injuries supporter, began regularly contributing posts to our blog site. Mejia's background in youth athletic development makes him a wealth of information and a great resource for the campaign. Posts on topics such as balanced training and the underappreciated benefits of good posture combine his passion for injury prevention with a unique perspective. As we continue to add new contributors, we welcome suggestions for topics. Please send your ideas to joe@aossm.org.

STOP SPORTS INJURIES

DePuy Mitek
a Johnson & Johnson company

As a new campaign year begins, the Society thanks DePuy Mitek, Inc. for it's continued sponsorship of the STOP Sports Injury campaign at the Champion level.

The American Journal of Sports Medicine

The Official Journal of the American Orthopaedic Society for Sports Medicine

Bruce Reider, MD, Editor-in-Chief

Call for Papers

Special *AJSM* supplement on Hip Arthroscopy

Guest Editors

Marc R. Safran, MD, *AJSM* Editorial Board Member

Mark R. Hutchinson, MD, *AJSM* Editorial Board Member

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Hip Arthroscopy Supplement

The American Journal of Sports Medicine (AJSM), with the support of ConMed Linvatec, is producing a special supplement in the summer of 2011 that will include original clinical and laboratory research on hip arthroscopy.

- *Deadline for manuscript submission is February 28, 2011*
- *Supplement will include approximately 16 articles*
- *Early submission is encouraged*

Don't miss out on this exciting opportunity.

Submit your manuscript today at:
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Hall of Fame Applications Now Accepted

The 2010 Hall of Fame Nomination form will be mailed to all members in December. Applications will also be available on the Society's Web site at www.sportsmed.org. We encourage your nominations!

Membership Application Deadlines

Active, Associate, and Affiliate Membership
November 1, 2010

Upgrade to Active or Associate Membership
November 15, 2010

Candidate Membership
December 15, 2010

For more information or membership applications, visit www.sportsmed.org or contact Debbie Turkowski at Debbie@aossm.org or call the Society office at 847/292-4900.

Nominating Committee

The 2010–2011 members of the nominating committee are:

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Candidate Members Receive FREE Starter Package

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For the fifth consecutive year, Ossur, has generously underwritten the AOSSM Candidate Member Starter Package for all fellows in ACGME-accredited sports medicine fellowships. This grant underwrites the $150 membership application fee as well as first-year Society dues of $250 for all sports medicine fellows in accredited programs who apply for candidate membership. Interested fellows must submit their Candidate membership application and Candidate reference forms by December 15, 2010. Society staff will review the application and ensure the application has met all requirements. Applicants that meet the December 15, 2010 deadline and Candidate membership requirements will begin immediately receiving the following benefits:

- Complimentary registration for the AOSSM Annual Meeting;
- Complimentary subscription to *The American Journal of Sports Medicine;*
- Complimentary subscription to *Sports Health: A Multidisciplinary Approach*
- Complimentary subscription to the Society's newsletter, *Sports Medicine Update;*
- Discounted registration fees for AOSSM-sponsored meetings and products;
- Access to the "Members Only" features on the Society's Web site, www.sportsmed.org.

If you haven't yet taken advantage of this opportunity and wish to do so, please visit the Society's Web site at www.sportsmed.org or contact Debbie Turkowski, Manager of Member Services at Debbie@aossm.org.

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AOSSM thanks Ossur for their support of sports medicine fellows.

Grandfather Option for Subspecialty Certification Ends on March 31, 2011



If you did not attend an ACGME or Canadian Orthopaedic Association accredited orthopaedic sports medicine fellowship, you ***must*** register with the American Board of Orthopaedic Surgery (ABOS) by March 31, 2011, to take the subspecialty certification exam. ***After this deadline, individuals who did not attend an accredited program will no longer be eligible to sit for the exam.*** This deadline is especially important because after 2011 a combined written recertification exam will only be offered to individuals who hold a general certificate and a subspecialty certificate.

The 2011 exam will be offered on November 3, 2011. In order to sit for the exam, applicants must complete the application, submit their case list, provide the supplemental required documents, and pay the $450 fee by March 15, 2011. Late applications to sit for the exam will be accepted until March 31, 2011, for an additional $350 late fee.

The application process is detailed and requires preparation, so anyone interested in sitting for the exam is encouraged to get an early start in learning the requirements and collating the materials. Specific details are available under the Diplomates section of the ABOS site, www.abos.org.

Sports Health and *AJSM* Calls for Papers



T. David Sisk Awards for Research Excellence

The AOSSM is announcing the T. David Sisk Awards for Research Excellence in clinical, laboratory, and international research. The winners will be selected from the best papers in each category submitted to *Sports Health: A Multidisciplinary Approach.*

These annual awards will include a $2,500 cash prize and a plaque. All manuscripts submitted through May 1, 2011, will be considered. Winners will be announced at the AOSSM Annual Meeting in San Diego, California, July 7–10, 2011. Visit submit.sportshealthjournal.org to submit your manuscript. Contact Kristi Overgaard, *Sports Health* Editorial Manager, at kristi@aossm.org, with any questions.



Papers Needed for *AJSM* Special Issue on Hip Arthroscopy

The American Journal of Sports Medicine (AJSM), with the support of Conmed Linvatec, is producing a special supplement on hip arthroscopy in the summer of 2011. Bruce Reider, MD, Editor-in-Chief, and guest editors Mark Safran, MD, and Mark Hutchinson, MD, are issuing a call for papers. Submissions should report original clinical research or clinically-relevant laboratory research. The deadline for manuscript submission is February 28, 2011. Early submission in encouraged.

Don't miss this exciting opportunity. Visit ajsm-submit.highwire.org to submit your manuscript. Contact Donna Tilton, *AJSM* Editorial Manager, at dtilton@ajsm.org, with any questions.



2011 Annual Meeting Abstract Deadline Approaching

Be sure to submit your abstract for the 2011 AOSSM Annual Meeting in San Diego. The deadline for submissions is November 15. Visit www.sportsmed.org and click on abstracts for details and requirements. At the time of submissions all clinical human studies must have approved IRBs and all animal studies must have approved IACUCs in order to be considered for inclusion in any AOSSM educational program.

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Readers are now able to earn journal-based CMEs through *AJSM*. Each month there will be a Current Concepts article eligible for 1 *AMA PRA Category 1 Credit*™ once the appropriate pre and post tests have been administered. All *AJSM* subscribers can receive two complimentary journal CME opportunities. Additional *AMA PRA Category 1 Credits*™ will cost $15 each. For more information visit www.ajsm.org.

New Addition at AOSSM—Joe Siebelts, Communications Assistant

After a summer full of learning the ins and outs of the STOP Sports Injuries campaign and getting our social media rolling on a consistent basis, recent DePaul University graduate and summer intern, Joe Siebelts joined the AOSSM full-time staff in September. He will continue his work with social media for STOP Sports Injuries, the Society, and *Sports Health* along with helping communications staff increase awareness about the campaign, write press releases, proofread materials, and perform other communications duties.

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

Have you received a prestigious award recently? A new academic appointment? Been named a team physician? AOSSM wants to hear from you! *Sports Medicine Update* welcomes all members' news items. Send information to Lisa Weisenberger, AOSSM Director of Communications, at lisa@aossm.org, fax to 847/292-4905, or contact the Society office at 847/292-4900. High resolution (300 dpi) photos are always welcomed.

Board Review Course a Success



"Best ortho meeting I have attended in 20 years!" was one of the attendee testimonials reflecting on the AOSSM & AAOS Review Course for Subspecialty Certification in Orthopaedic Sports Medicine held August 6–8, 2010, in Chicago.

Co-Chairs Drs. Augustus D. Mazzocca and Michael J. Stuart deserve strong marks for their accomplishments in selecting stellar faculty and developing a thorough review course that ably supports preparation for sports recertification or the sports subspecialty exam. Allied health personnel increasingly have found that their needs are met as well and find the course a wonderful resource. An audience of nearly 300 attended the meeting. Respondents to the post-meeting survey consistently complimented the course's intense focus on testable material while minimizing issues without consensus. Many attendees felt that the no-nonsense and organized approach was simply an added bonus.

AOSSM looks forward to the 2011 course in Chicago August 5–7.



AOSSM Hosts Special International Guest

During the last week of September, we were pleased to host Laura Espósito (pictured 5th from left), the Executive Director of the Asociación Argentina de Artroscopia in Buenos Aires, Argentina. During her visit, Laura visited with each of our staff to exchange ideas and share her global perspective on sports medicine issues. She also had the opportunity to visit other orthopaedic associations in the area.



Sponsor *Sports Health* for ATCs on Your Team–Low Cost and High Impact!

AOSSM and SAGE are introducing a special subscription price so you can provide *Sports Health: A Multidisciplinary Approach* to your colleagues who are athletic trainers. For only $45, you can give a subscription to this high quality journal (1 year/6 issues), providing your colleagues with the latest clinical research in sports medicine.

Unlike AOSSM members, ATCs do not receive *Sports Health* as a benefit of membership, and even the reduced price they are offered can be a prohibitive out-of-pocket cost. AOSSM, therefore, is offering this special subscription price–30 percent off the list price for allied health professionals–so you can support ATCs in your community in a substantive and economical way. The number of subscriptions you may sponsor is unlimited. All you need to do is go online to www.sportsmed.org/shj and complete the subscription form providing the recipient's mailing information. AOSSM will forward a special notice to the individual indicating you are providing them with a gift subscription and then begin mailing their subscription with the subsequent issue.

As 2010 comes to a close, take advantage of this special program so your sports medicine team can stay on top of their game in 2011.

The Multi-center ACL Revision Study (MARS) has reached another milestone with the enrollment of the 900th patient into the study last month. This makes MARS the largest revision cohort ever in orthopaedic research. Enrollment will end in the beginning of 2011. Two-year follow-ups have been completed on over 150 patients so far. The principal investigator, Rick Wright, has submitted a grant application to NIH to explore factors that might affect patient outcomes assessed two years after revision.

The AOSSM study, **"Prediction of Response to Intra-articular Injections of Hyaluronic Acid for Knee Osteoarthritis,"** has enrolled over 150 patients towards the target of 500 subjects. Patients are followed for one year after their injection series. The data will be analyzed to develop a mathematical model to predict individual patient response to treatment.



Over 460 youth baseball players across the country have completed the pitchers survey as part of the **AOSSM Youth Pitchers Project.** Data collection will continue for another year. The results from this study will provide normative information on pitching practices as well as the incidence of pitching-related elbow and shoulder problems in this population.

The AOSSM Clinical Outcome Measures Consensus Task Force, a group that is reviewing the major patient-reported instruments used in orthopaedic sports medicine, has completed work on knee measures and will meet this fall to finalize its recommendations. The Task Force will also review instruments for the shoulder, elbow, hip, and foot/ankle during the upcoming year.

NAMES IN THE NEWS

Dr. Freddie H. Fu Named Distinguished Service Professor of Orthopaedic Surgery



The University of Pittsburgh has granted the title of Distinguished Service Professor to Freddie H. Fu, MD, David Silver Professor and Chair of the Department of Orthopaedic Surgery at the Pitt School of Medicine.

The highest honor the university can accord to a senior faculty member, the appointment honors those who have established records of distinguished service within the university as well as national or international leadership in a specific field or discipline. Dr. Fu is the first professor in the Department of Orthopaedic Surgery and only the eighth in the School of Medicine to receive this honor.

Dr. Fu served as president of the AOSSM in 2008–2009. Please visit http://www.chronicle.pitt.edu/?p=6005 to read about this prestigious appointment.

Dr. Steven Arnoczky Honored with Award for Outstanding Surgical Research



Dr. Steven Arnoczky, the Wade O. Brinker Professor of Veterinary Surgery and Director of the Laboratory for Comparative Orthopaedic Research at Michigan State University, is the recipient of the 2010 Jacob Markowitz Award for Outstanding Surgical Research from the Academy of Surgical Research. The award is named after Dr. Jacob Markowitz, a pioneer in the field of experimental surgery.

Dr. Arnoczky was recognized for his basic science research of surgical procedures for ligament reconstruction and meniscus repair and replacement in both humans and animals. A partial list of previous winners of the award include Dr. Michael DeBakey (heart surgery), Dr. Tomas Starzl (organ transplantation), and Dr. Wade O. Brinker (veterinary orthopaedic surgery).



ESSKA-AOSSM
Traveling Fellowship Tour 2010

THE 2010 ESSKA-AOSSM TRAVELING FELLOWS included Godfathers William Clancy, MD, from the Andrews Sports Medicine and Orthopaedic Center, and Lonnie Paulos, MD, from the Andrews-Paulos Research and Education Institute, as well as fellows Warren Dunn, MD, MPH, from Vanderbilt, Brian R. Wolf, MD, MS, from the University of Iowa, and Diane Dahm, MD, from the Mayo Clinic.

The traveling fellowship started in Amsterdam after a smooth flight over the pond. We met with the always energetic Gino Kerkhoffs for lunch and wonderful land and water tours of the city. After a trip to the Vincent Van Gogh Museum, Professor Niek Van Dijk hosted us at the AMC Hospital for an excellent research symposium. Our hosts Niek and Gino also gave us the opportunity to observe some foot and ankle surgeries—they certainly made some difficult procedures appear easy. From there we took to the beautiful countryside for a leisurely bike ride before the end of our stay in Holland.

Our trip continued in Luxembourg, where we spent time with Professors Romain Seil and Dietrich Pape performing osteotomies in the sawbones lab and touring their impressive research facilities. We later observed hip arthroscopy surgeries with Matthias Kusma and Oliver Steimer before attending an interesting scientific session on molecular strategies for cartilage repair, organized by Professor Henning Madry. A memorable evening's dinner at the top of the Sofitel provided a spectacular view of Luxembourg Village while we dined on fois gras, dorado, and champagne. Another evening we trekked to Mannheim for the quarter finals of the World Cup Ice Hockey Championships (Go Deutschland!). A big fight occurred at the end of the game, which had us Americans feeling right at home. Professor Dieter Kohn later entertained us with slides of his traveling fellowship, which we capped off with cigars and bourbon as Dr. Clancy taught us some unforgettable pearls of wisdom. We rounded out the fun with a 20 kilometer bike ride through the beautiful Luxembourg countryside. We then had dinner and drinks with Romain and his wife, Katia, before departing for Porto to meet with Professor Joao Espregueira-Mendes.

While in Porto, aside from enjoying some excellent port, we visited the Hospital Santa Maria to participate in an inspiring academic session followed by a spectacular lunch overlooking the city. We also met with Professor Espregueira-Mendes and Pedro Veranda, who demonstrated a technique for revision anterior cruciate ligament reconstruction and a perfectly executed tibial tubercle medialization procedure. Other tours included the impressive multispecialty clinic and the famous FC Porto Stadium, which was a great place to buy gifts to bring home, including FC Porto soccer jerseys for the kids.

Professor David Dejour and Professor Philippe Neyret met us at our next stop in Lyon. We saw a number of procedures during our visit, including patellofemoral surgery, ACL reconstruction, and cartilage restoration with Professors Neyret and Elvire Servien at the University Centre Albert Trillat. Bertrand Sonnery-Cottet further impressed us with his technical expertise while performing an ACL reconstruction and a medial patellofemoral ligament reconstruction at the Centre Orthopedique Paul Santy. We also enjoyed a spirited discussion between Drs. Clancy and Chambat regarding the bundles of the posterior cruciate ligament—watching the distinguished professors "go at it" was great fun! Our last day in Lyon included an academic session at the Clinique de la Sauvegarde and a fabulous outdoor barbecue at Professor Dejour's home. None of us was quick enough to catch a sheep, but thankfully David De Jour had invited an anesthesiology colleague who had no difficulty taking one down for us to shear!

Temporarily godfather-less, we boarded the train and made it to Geneva where we met Professor Daniel Fritschy and Jaques Menetrey. We spent some great time with our new godfather, Dr. Lonnie Paulos, and brought him up to speed on the events of the past two weeks. Our next day was one of the most relaxing of the trip, beginning with a morning walk around the old city followed by a fascinating tour of the Red Cross Museum. After an afternoon at the Cressy Center (where Diane was the sole volunteer for V02 Max testing) we were treated to an outstanding fondue dinner at Daniel and his wife, Marika's, home—complete with gruyere cheese from Jaques's hometown, fresh strawberries for dessert, and some of the best cigars of the trip from the professor's private collection. Both professors invited

Continued on page 13





us to the operating room to observe a distal femoral osteotomy procedure with Daniel and a challenging knee dislocation case that Jacques handled with great finesse. Our stay ended after some shopping (mostly window shopping) for Swiss watches before we boarded the train to Milan.

Professor Pietro Randelli picked us up in Milan after a picturesque train ride from Geneva. The next morning provided a great learning experience in the operating room with Pietro and Professors Matteo Dente, Piero Volpe, and Alex Castana, and included double bundle ACL reconstruction, posterolateral corner reconstruction, rotator cuff and labral repairs. As an added bonus we participated in an outstanding scientific session with the SLARD fellows. During our stay we spent a day in Milan's famous shopping district, where we visited the Ferrari Store, followed with some sightseeing at the Teatro de Scala and famous Milan cathedral. Other highlights included a stop at the Monza Racetrack (where we got to see part of a race), and a beautiful air tour of Lake Como.

We then moved on to Heidelberg, where a stretch limousine stocked with cold German beer awaited our arrival.

We began our Heidelberg stop with Professors Rainer Siebold and Hans Pessler enjoying a lovely dinner including some excellent German white wine and the famous white asparagus, followed by a stop at Hans Pessler's house for a Cuban cigar. During the rest of our time, we enjoyed another excellent scientific session, a fascinating surgery at the ATOS Clinic, and a tour of the Heidelberg Castle. Wish we could have stayed longer!

The fellowship tour ended with our last stop in Oslo. We were excited to meet up with all our previous hosts and the friends we met along the way. We had our final dinner with Lonnie and his wife, Shannon, as they prepared to leave the next morning. Brian and Warren's wives, Laura and Missy, arrived and joined us for the president's dinner where we met Lars Engebretsen for another fantastic evening. This was truly a once in a lifetime experience, and we are very grateful to all of the hosts for their kind and generous hospitality.

At every stop, we were enriched professionally, culturally, and socially. Our sincere thanks goes out to DJO for their continuing support of the traveling fellowship, all of our hosts during this tour, Brigitte Melchior-Dolenc (ESSKA), and Debbie Turkowski (AOSSM) for their coordination of the traveling fellowship tour, the AOSSM Traveling Fellowship Committee, and all of the others who made this wonderful experience possible. We look forward to seeing you all at future meetings and to hosting traveling fellows in the future!

DJO

To the Editors of *Sports Medicine Update,*

I read with interest the article on acute patellar dislocation (September/October 2010) and came away with the impression that surgical intervention was for many patients the treatment of choice based on the current literature. I have given a talk on patellar instability problems for some time and am familiar with the literature quoted in the discussion and believe that for the overwhelming majority of patients non-operative management is the treatment of choice and if there is a choice you can rarely go wrong with such management barring a large osteochodral fragment and injury.

The pendulum in the last 2–3 years has swung toward MPFL reconstruction and I believe will swing back as the complications and morbidity from such reconstruction become apparent with its widespread use. The paper I have found most valuable in assessing this issue by Nikku et al[1], which was actually the second of 2 papers written on the topic. The first was an initial 2-year evaluation published in 1997.[2] The second, published in 2005,[1] was written as a follow-up with the conclusion that the redislocation rate was the same for operative and non-operative management. In addition, the Palmu et al[3] study gave the same result and conclusion for children and adolescents.

I have learned there is very little new in orthopaedic management. One thing I know is that, except in very specific circumstances and for very specific indications, acute ligamentous injury can be treated non-operatively with long-term morbidity not much worse than the operative option. Jack Hughston said, "There is nothing so bad it can't be made worse by surgery."

William A. Grana MD, MPH
Professor, Department of Orthopaedic Surgery
University of Arizona, Tucson, Arizona

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1. Nikku R, Nietosvaara Y, Aalto K, Kallio PE. Operative treatment of primary patellar dislocation does not improve medium-term outcome: A 7-year follow-up report and risk analysis of 127 randomized patients. *Acta Orthop.* 2005;76(5):699-704.
2. Nikku R, Nietosvaara Y, Kallio PE, Aalto K, Michelsson JE. Operative versus closed treatment of primary dislocation of the patella. Similar 2-year results in 125 randomized patients. *Acta Orthop Scand.* 1997;68(5):419-23.
3. Palmu S, Kallio PE, Donell ST, Helenius I, Nietosvaara Y. Acute patellar dislocation in children and adolescents: a randomized clinical trial. *J Bone Joint Surg Am.* 2008;90(3):463-70.

CALL *for* VOLUNTEERS

Every year, AOSSM accepts new volunteers to serve on its standing committees. These volunteer committees form the lifeblood of AOSSM and provide guidance for Society programs and projects. Those who join committees not only heighten their experience as an AOSSM member, but form ties of fellowship with their colleagues that can last throughout their career. Because different committees work so closely with each other to help accomplish the Society's mission, participating in a committee is an excellent way to see how AOSSM develops its meetings, courses, publications, and other resources.

Although requirements and duties vary by committee, volunteers must be able to attend regular committee meetings, which are typically scheduled in conjunction with Specialty Day each spring and the AOSSM Annual Meeting each summer. With the range of Society programs and corresponding committees, there are many opportunities to share your unique perspective.

All membership categories are eligible to serve on AOSSM Committees. Term of service is a four-year-non-renewable term. Appointment of volunteers to the Society's standing committees is made by the Committee on Committees, which meets in the spring of each year. Volunteers will be notified if they have been selected by May 2011.

If you are interested in serving on an AOSSM committees, simply fill out the Volunteer Form on the facing page and fax it back to the Society office by February 1, 2011, (fax number 847/292-4905), or complete the form as posted on the AOSSM Web site at www.sportsmed.org and e-mail to Camille@aossm.org.

These committees will have vacancies in 2011 (current Chair in parentheses):

Education Committee
(Andrew J. Cosgarea, MD)
Provides educational opportunities to our membership. Develops, monitors, and implements a core curriculum of knowledge and skills appropriate for a range of stakeholders.

Enduring Education Committee
(Rick W. Wright, MD)
Provides oversight for all enduring education programs and develops new initiatives for online, multimedia, and other re-purposed material. Categorizes resources and monitors activity associated with the online library. Committee members must be familiar with the AOSSM sports medicine curriculum. Committee members promote enduring educational activities, including online meetings and the online library.

Hall of Fame
(Walton W. Curl, MD)
Develops application and guidelines for the Hall of Fame, as well as makes final selection of recipients.

Public Relations Committee
(Matthew J. Matava, MD)
Develops proactive communications strategies to promote the Society and its membership as sports medicine experts on local and national levels. Identifies and promotes newsworthy papers from *The American Journal of Sports Medicine* and *Sports Health: A Multidisciplinary Approach,* as well as from Society meetings and courses.



Disseminates educational information to the media, general public, and other health care providers.

Publications Committee
(Daniel J. Solomon, MD)
Provides editorial content as needed for *Sports Medicine Update.* Identifies new projects and solicits content as appropriate for patient and/or physician education materials. Monitors sales of publications and joint efforts to ensure effective use of Society resources.

Research Committee
(Constance R. Chu, MD)
Evaluates applications and selects recipients of Young Investigator Grants and AOSSM Research Awards. Selects the AOSSM Exchange Lecturer for the NATA Annual Meeting on the basis of that year's research award winners. Develops initiatives for AOSSM-sponsored research education.

Self-Assessment Committee
(Thomas M. DeBerardino, MD)
Develops new questions for the AOSSM Self-Assessment based on the question writing guidelines. Reviews and edits question content. This committee is involved with pilot testing the Self Assessment, and analyzing data related to question content and participant data. Committee members must understand the AOSSM curriculum and the requirements for Subspecialty Certification in Sports Medicine.

Technology Committee
(Kevin Marberry, MD)
Oversees AOSSM Web site. Reports new and developing information technologies to the AOSSM Board of Directors and membership. Promotes technology usage through education and member services. Note: Access to the Internet and ability to communicate via e-mail is necessary for full participation on this committee.

Traveling Fellowship Committee
(Eric C. McCarty, MD)
Selects Traveling Fellows and works with AOSSM President-Elect to choose a Godparent for upcoming tours. Develops and maintains relationships with ESSKA, APOA, and SLARD. Oversees Traveling Fellowship Tours, including selection of hosts and itinerary. Note: Eligibility is contingent on previous participation as a Traveling Fellow.

Thank You, AOSSM Volunteers! The Society thanks all the volunteers who have given so generously of their time in service to AOSSM committees over the years. Your commitment drives the Society's contributions to the entire orthopaedic community.

Continued on page 15

AOSSM COMMITTEE SERVICE VOLUNTEER FORM

Name _____

Practice Name/Institution _____

City _____ State _____

Age _____ Year Joined AOSSM _____

Committee(s) you are interested in serving on:

_____

_____

_____

Please use the area below to outline your interests, abilities, and experience, particularly as they relate to your committee of interest, in 200 words or less, or submit a letter with same. **Do not attach your curriculum vitae.** The Committee on Committees will use the information to assist them in their selection of committee members in May 2011. This information will be kept confidential. Return to the Society office no later than **February 1, 2011,** by mail or fax to 847/292-4905, or e-mail camille@aossm.org.

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Upcoming Meetings and Courses



Advanced Team Physician Course
Washington, D.C.
December 9–12, 2010
On-site registration available.

AOSSM Specialty Day
San Diego, California
February 19, 2011

3rd Combined Meeting of the Japanese and American Orthopaedic Societies for Sports Medicine
Maui, Hawaii
March 26–29, 2011
Advance registration closes January 7, 2011.

AOSSM 2011 Annual Meeting
San Diego, California
July 7–10, 2011

AOSSM 2011 Annual Meeting in San Diego, California

AOSSM President Robert A. Stanton, MD, and Program Chair Marlene DeMaio, MD, invite you to sail away to San Diego for the AOSSM 2011 Annual Meeting July 7–10, 2011.

Be sure and take advantage of:

- Afternoon Workshop: Live Surgical Demonstrations
- Symposium on the Disabled Athlete
- Presidential Guest Speaker Frank Deford, celebrated sportswriter and radio presence
- The Young Sports Medicine Specialists' Workshop: Game Plans for a Winning Sports Medicine Practice
- AOSSM 2011 Research Workshop: Clinical Outcomes and Trial Design in Orthopaedic Sports Medicine
- and everything that San Diego offers!

Land the $229 AOSSM preferential room rate at the Manchester Grand Hyatt by going to the AOSSM Web site, www.sportsmed.org now.

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



T. David Sisk

Awards for Research Excellence

To honor Dr. T. David Sisk's dedication to *Sports Health: A Multidisciplinary Approach* and his legacy as a leader in sports medicine, the American Orthopaedic Society for Sports Medicine (AOSSM) is pleased to announce a new series of annual awards for manuscripts submitted to *Sports Health*. The Sisk Awards for Research Excellence will be given to the best publishable paper in the following categories:

- **Best Basic Science Paper** – $2500 and plaque
- **Best Clinical Science Paper** – $2500 and plaque
- **Best International Paper** – $2500 and plaque

All papers submitted through May 1, 2011, will be considered

To submit a manuscript to Sports Health visit http://submit.sportshealthjournal.org

Additional inquiries can be sent to ewojtys@sportshealthjournal.org

Sports Health

Sports Health is a collaborative publication of the AOSSM, American Medical Society for Sports Medicine, Sports Physical Therapy Section, National Athletic Trainers' Association and the American Academy of Pediatrics.

Awards will be presented at the AOSSM 2011 Annual Meeting in San Diego, CA, July 7–10, 2011.

Call for Papers

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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

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



Sports Health

30% off the list price