

Sports Medicine

UPDATE

SEPTEMBER/OCTOBER 2012



**Research
Mentoring
Grant Available**

**Apply for
Traveling
Fellowship**

**Sports Medicine
Fellowship Match
in Full Swing**

EYE INJURIES



AOSSM



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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 website at www.sportsmed.org.

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Christopher D. Harner, MD

EDUCATION IS THE LIFE BLOOD FOR THE ORTHOPAEDIC SPORTS MEDICINE PROFESSION, and AOSSM continues to provide a broad array of accredited CME programs to support the professions' expanding needs. While the Society's 2012 Annual Meeting, which was profiled in the July/August *Sports Medicine Update*, is our educational crown jewel, AOSSM continues to produce a steady stream of other educational programs for its members.

On August 10–12, the Society held the 6th AOSSM & AAOS Review Course for Subspecialty Certification in Orthopaedic Sports Medicine in Chicago, chaired by George Paletta, MD, and Michael Stuart, MD. Since it was first offered, the course has established a sterling reputation for its comprehensive program, renowned faculty, innovative approach, and value. This year was no exception and included the AOSSM self-assessment exam, imaging-arthroscopy correlation sessions modeled after the ABOS imaging questions, and online access to all of the program sessions after the meeting.

Just two weeks later, the Society and the NHL Team Physicians Society, with support from the National Hockey League and the NHL Players Association, sponsored our tri-annual hockey course in Toronto, Canada, titled *Keep Your Edge: Hockey Sports Medicine in 2012*. The co-chairs, Benjamin Shaffer, MD, and Michael Stuart, MD, put together a program and faculty who drew a record attendance, featured Gary Bettman, the Commissioner of the NHL, and included a night at the Hockey Hall of Fame. The meeting underscores AOSSM's collaborative approach in bringing the latest scientific knowledge to clinicians.

While meetings have been the mainstay of AOSSM's educational program, the Society continues to develop new options for fulfilling members' interests and needs. The Self-Assessment Exam has been popular not just for subspecialty certification but also for fulfilling members' ABOS Maintenance of Certification

requirements. In August, the Society received word from the ABOS that our first Performance Improvement (PI-CME) module on patellofemoral pain was approved for MOC Part IV. In the upcoming months the Society will be working with the ABOS to integrate the program as a way of providing members with an option for fulfilling their MOC Part IV requirements. The Society is indebted to William Grana, MD, for developing the PIM and launching the Society's work on this new and critical educational endeavor.

Finally, as the Society and AANA enter their fifth year of the Orthopaedic Sports Medicine and Arthroscopy Match, I am pleased that 92 accredited fellowship programs are again participating in the match, affording residents more than 217 positions from which to consider and rank for fellowship training. The ongoing strength of the Match underscores the commitment of the sports medicine community to work together in providing a strong and stable environment for fellowship training.

As president, I'm proud of the Society's ability to continue developing fresh, innovative programs that support the profession, and as an educator I am especially pleased with AOSSM's continued emphasis on quality education.





BLUNT EYE INJURIES

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Despite advances in protective eye wear, traumatic eye injury remains the second most common cause of visual impairment, behind only cataracts. Each year, nearly 15 percent of the 2.5 million eye injuries in the United States occur during sporting activities.¹ Of these injuries, 42,000 are severe enough to warrant an emergency department visit, and approximately 13,500 result in legal blindness.²

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While many of these injuries involve recreational athletes, an estimated one in 18 college athletes suffers an eye injury each year.³ Athletes who are particularly vulnerable to injury are those participating in sports that involve hard and/or fast-moving projectiles (e.g., squash, baseball), sticks (e.g., hockey, lacrosse), close contact (e.g., basketball, football, wrestling), and intentional injury (e.g., martial arts, boxing). Among athletes 5–14 years of age, ocular injury most commonly occurs in baseball; in those 15–64 years of age, basketball is the leading cause of eye injury in sports.⁴

Because of the ubiquity of eye injury among all types of athletes, knowledge of fundamentals of evaluation and acute treatment of blunt eye injury is mandatory for team physicians. The purpose of this review is to provide a framework for assessing and treating blunt eye injuries.

Anatomy

Understanding of basic anatomy is paramount for proper evaluation of injury to the orbital region. The orbital region encompasses the globe and its surrounding structures including the eyelids, orbital bones, periorbital fat, extraocular muscles, and adjacent neurovascular structures. The orbital bones, which form a four-sided housing for the eye, and periorbital

fat provide structural support and static protection while the eyelids dynamically protect against injury to the eye. Arising from the orbit and inserting on the globe, extraocular muscles allow for ocular mobility. A complete listing of extraocular muscles, their innervations and functions are listed in Table I.

The outer coat of the globe consists of the sclera and cornea, a transparent area on the anterior portion of the eye wall, and can be conceptually divided into two segments. The anterior segment consists of: (a) cornea, (b) iris, controls the amount of light passing into the eye, (c) ciliary body, produces of aqueous fluid, (d) lens.⁵ The structures of the anterior segment are responsible for modifying the light/image that is presented to retina. The posterior segment consists of the vitreous humor, retina, choroid, and optic nerve. The retina, which is nourished by the highly vascularized choroid, is the richly innervated, complex network of photoreceptors responsible for image transduction and transmission. The ganglion fibers of the retina coalesce to form the optic nerve (cranial nerve II) and exit the globe at the optic disk. The macula, the center of the retina, is the area of highest density of photoreceptors and therefore finest visual acuity.

Evaluation

The physical examination of an athlete with an acute eye injury begins with a focused history which includes the object causing the injury and the force and direction of impact. Most eye injuries in sports occur secondary to blunt, penetrating, or radiating trauma. A direct blow to the globe from an object smaller than the eye or orbital opening leads to a rapid increase in anterior-posterior compression and dilation of the middle of the globe. This injury damages the internal ocular structures. A direct blow with an object larger in size than the orbital opening tends to fracture the floor or medial wall of the orbit and has a high incidence of occult internal ocular injury.⁴

Several subjective complaints are associated with more severe injury: visual loss, severe eye pain, floaters, and/or flashes are suggestive of significant injury within the globe and warrant emergent referral to an ophthalmologist. Superior orbital fissure syndrome is a condition that results if the superior orbital fissure is fractured and produces diplopia, exophthalmos, paralysis of extraocular motions, and eyelid ptosis. This constellation of symptoms combined with blindness is termed “orbital apex syndrome” and requires urgent surgical intervention.



Table I. Extraocular Muscles

MUSCLE	INNERVATION	FUNCTION
Superior rectus	Cranial nerve III	Elevates, adducts, medially rotates
Inferior rectus	Cranial nerve III	Depresses, adducts, laterally rotates
Medial rectus	Cranial nerve III	Adducts
Inferior oblique	Cranial nerve III	Abducts, laterally rotates, elevates medially rotated eye
Superior oblique	Cranial nerve IV	Abducts, medially rotates, depresses medially rotated eye
Lateral rectus	Cranial nerve VI	Abducts

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Globe ruptures can be a particularly devastating injury and should be identified and treated promptly. If a globe rupture is suspected, a protective eye shield should be placed, empiric antibiotics administered, and emergent referral initiated.^{4,5} For each day of delay in surgical correction, there is a 1.16 fold increase in the possibility of having a worse visual prognosis.⁶ At presentation, a visual acuity worse than 6/60 predicts a bad clinical outcome and poor long-term visual acuity: over one third will eventually require enucleation.⁷ While detailed examination, including slit lamp evaluation, is impractical for most sideline physicians, there are several key ocular functions that can be readily assessed:

- **External evaluation** — The orbital region should be examined externally for signs of trauma such as orbital bruising, swelling, proptosis, and bony step-offs (Figure 1). If swollen, the eyelids should be opened gently to avoid placing pressure on the globe.⁸ A penlight can be used to evaluate the anterior chamber for a foreign body, hyphema, abrasion, or laceration.



Figure 1. Infraorbital ecchymosis often results from orbital “blow-out” fracture.

- **Extra-ocular motility** — The examiner moves his/her finger to examine the subject’s ability to move the eye in each of the six cardinal fields of gaze: left, up and left, up and right, right, down and right, down and left.⁵ Limited elevation of gaze is suggestive of an orbital wall fracture with potential nerve and/or extraocular muscle entrapment.⁴



- **Pupil examination** — Pupils should be evaluated for size. Anisocoria (unequal pupil size) is present in 20 percent of the population but should not exceed 1 mm and should react normally to light. In direct light, normal accommodation should cause the pupils to constrict promptly. Abnormal pupil response is assessed by the swinging flashlight test to determine if an afferent or efferent injury is present. If the pupil constricts consensually but not to direct light, i.e., “Marcus Gunn pupil,” an afferent injury is present (highly suggestive of traumatic optic nerve injury). If the pupil does not respond to either consensual or direct light, an efferent injury is present (third cranial nerve, sphincter muscle of pupil).^{4,8}
- **Visual acuity** — Best corrected visual acuity is best assessed using a Snellen eye chart (pocket version held 14 inches

from eyes). Alternately, visual acuity can be evaluated by having the athlete count fingers or read any available small print. Each eye should be tested individually. The examiner should be aware of any corrective lenses that may be used by the athlete at the time of the exam.

- **Confrontation visual fields** — Confrontational visual fields should be tested for each eye individually. In this exam, the examiner wiggles one or two of his/her fingers from the periphery to the center of the subject’s visual field in a defined sequence (i.e., up, down, left, right). Any side-to-side difference could signal a retinal detachment.⁵

Common Eye Injuries

Corneal Abrasion

Though anatomical structures, such as eyelids and bony orbits, serve as protective barriers, the outermost layer of the eye,

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most importantly the cornea, is susceptible to blunt and penetrating injury (most commonly fingernail to eye). Corneal abrasions are among the most common sports-related eye injuries. The cornea, both avascular and transparent, serves as a barrier, filters light, and refracts light to the retina⁹ and any scarring from deep abrasions and/or recurrent corneal erosions may result in significantly impaired vision.⁹ Fortunately, most corneal abrasions usually heal within a week without sequelae.

Once diagnosis is made, often by cobalt blue filtered light-assisted identification of topically-applied fluorescein dye within the abrasion, treatments are directed toward preventing infection and alleviating symptoms, including photophobia, pain, headache, and excessive tearing. Topical antibiotic ointments, such as bacitracin, erythromycin, and gentamicin, are often prescribed for non-contact wearers; anti-Pseudomonal coverage with commercially available fluoroquinolone eye drops (besifloxacin, ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin, or ofloxacin) and cessation of contact lens use are necessary for the treatment of corneal abrasions in contact lens wearers.⁹ Topical anti-inflammatory medications may provide some benefit, but topical anesthetics, mydriatics (agents that dilate the pupil), and eye patches have not been demonstrated to confer any treatment advantage for corneal abrasions.⁹ Patients should be re-evaluated daily until the abrasion has completely healed. Referral to an ophthalmologist should be considered in the presence of significant trauma, deep abrasions, recurrent corneal erosions, lack of improvement or worsening symptoms after 3 days, any lack of clarity to the abrasion, and/or contact wearers who do not improve shortly after removal of the contact lens.^{9,10}

Hyphema

Hyphema describes the accumulation of blood within the anterior chamber of the eye. Hyphemas often are produced from blunt trauma to the anterior globe¹¹



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Figure 2. CT images are the gold standard for detecting orbital wall fractures. While coronal images are traditionally used three-dimensional reconstruction views can be extremely helpful in defining the fracture.

and resultant stretching and even tearing of anterior chamber structures, such as ciliary body, iris root, and/or margin of the pupil.¹² While traumatic cataracts, choroidal rupture, secondary glaucoma, and retinal detachment have all been associated with hyphema,¹¹ corneal blood-staining and optic nerve damage from elevated intraocular pressure are the major risks following this injury.⁵ Hyphemas are graded 1–4 according to the amount of blood layering in the anterior chamber. Increasing grade is correlated with increased blood accumulation and therefore risk of elevated intraocular pressure and optic nerve injury.

Treatment of hyphema focuses on measures to decrease intraocular pressure by limiting bleeding and preventing secondary hemorrhage. Secondary hemorrhage usually occurs within days 2 to 5 after the initial injury and is often more severe than the original bleed.¹¹ Head elevation, limitation of activities, and placing an eye patch over the affected eye to limit rapid eye movements are appropriate measures prior to emergent ophthalmic consultation.¹¹ Antifibrinolytic agents, such as aminocaproic acid, and topical cycloplegics and steroids may be administered, but anticoagulants, aspirin, and non-steroidal anti-inflammatory medications should be avoided.

Antifibrinolytic agents delay absorption of the blood clot until healing of the injured vessel occurs. These agents have been proven to reduce the rate of secondary hemorrhage, even though the duration of the hyphema is often prolonged.¹³ Because those with sickle cell trait and disease carry a potentially higher risk of optic nerve damage from sickling of red cells and increased intraocular pressure, African-Americans unaware of their sickle cell status should be urgently screened for the disease.¹⁴

Retinal Detachment

Retinal detachment represents the separation of the photoreceptors

from the underlying retinal pigment epithelium. Traumatic events can lead to breaks within the retina that allow for leakage of vitreous and/or hemorrhagic fluid into the potential space between the photoreceptors and the retinal pigmented epithelium.¹⁵ The accumulation of fluid within this space leads to progressive retinal detachment. Prolonged retinal detachment can lead to photoreceptor degeneration and irreversible vision loss.¹⁶

Prompt recognition of retinal breaks and detachment is essential to limit photoreceptor degeneration, especially to the macula. While retinal breaks are usually heralded by the presence of floaters, unilateral sensation of flashing light, and curtains moving into the visual field,¹⁶ loss of vision and/or visual acuity often signify retinal detachment. If traumatic retinal break or detachment is suspected, emergent referral to an ophthalmologist is warranted to prevent further compromise of vision. Retinal breaks can often be surgically managed by creating a scar between the retina and choroid using laser therapy or cryotherapy. Retinal detachments are surgically repaired and breaks sealed often within five days of injury. Surgical urgency depends upon symptom duration, extent of detachment, and visual acuity,¹⁷ and ultimate outcome depends on extent of macular involvement.¹⁵

Orbital Fracture

Orbital fractures are classified into two types, orbital rim fractures and orbital wall fractures.¹⁸ While orbital rim fractures usually result from direct trauma, orbital wall or “blow-out” fractures secondarily manifest from blunt trauma to the globe. Indeed, blow-out fractures occur when the globe is bluntly impacted; instead of rupturing, the globe absorbs the force, intraocular pressure increases, and force transfers to the orbital wall and causes fractures of its relatively weak posteromedial floor and/or medial wall.¹⁹ Due to the intimate relationship of the structures to the orbital wall, (a) the extraocular muscles

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can be injured and/or entrapped within the fracture and result in diplopia (double vision) and/or (b) orbital structures can herniate into the underlying maxillary sinus and lead to enophthalmos (sunken-appearing eye).¹⁹ Symptoms may include severe pain, decreased vision, and/or altered sensation in the infraorbital region due to injury to the V2 (infraorbital) branch of the trigeminal nerve.

Though computerized tomography, especially of the direct coronal images²⁰ is the gold standard for diagnosis. Physical examination helps guide surgical management (Figure 2).¹⁹ Surgical intervention using implants and/or bone grafting is generally reserved for those demonstrating diplopia (often due to entrapment of the inferior rectus), noticeable enophthalmos, and/or large, unstable fractures.²¹ To limit potential complications, such as orbital abscess, antibiotics are prophylactically administered and surgery is often delayed until resolution of edema; this delay allows for safe anatomic reduction and fixation of

fractures.¹⁸ Despite surgical intervention, between 37 and 53 percent have persistent diplopia, usually with upper field gaze.^{18,22}

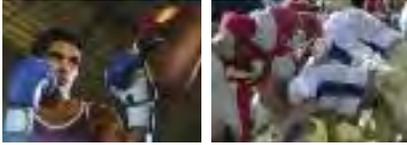
Prevention

Despite the high prevalence of eye injuries among athletes, Prevent Blindness America estimated that greater than 90 percent of eye injuries can be prevented by the use of protective eye wear. Two sports, ice hockey and women's lacrosse, which have instituted rules requiring use of protective eye wear have a significantly decreased incidence of eye injury among their athletes.^{23,24} Therefore, the National Eye Institute of the United States Department of Health and Human Services made increased use of protective eye wear in recreational activities a "Healthy People 2010" objective. Additionally, several organizations, including American Academy of Pediatrics, American Academy of Ophthalmology, American Optometric Association, and the United States Department of Health and Human Services have issued position statements that strongly advocate the use

of protective eye-wear in risk prone sports. Eye protection is especially important for functionally one-eyed athletes (best corrected visual acuity in weaker eye, 20/400): these athletes must wear eye protection and should not participate in high risk sports such as boxing or full contact martial arts.²⁵

However, not all available eye wear is protective. The National Eye Institute maintains that those athletes using "street wear" (i.e., corrective eye wear and/or sun glasses) are at higher risk of sustaining an eye injury than those without eye protection. Therefore, parents and athletes participating in sports that pose risk for eye injury should ensure that any purchased eye wear meet the standards of the sport as certified by the American Society for Testing Materials, American National Standards Institute, and/or National Operating Committee on Standards for Athletic Equipment. Generally, polycarbonate and/or Trivex lenses offer substantial protection against most projectiles encountered in sport.

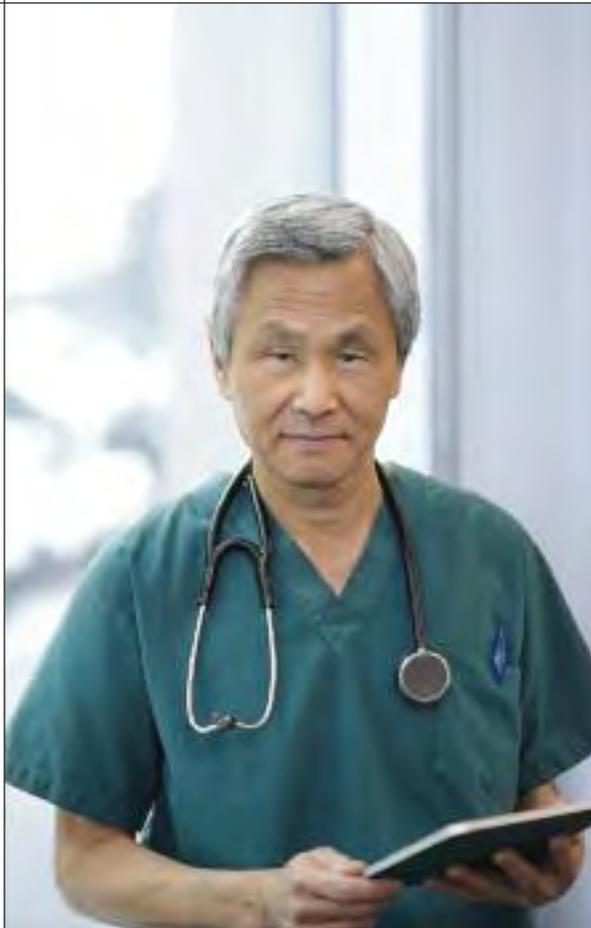




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RESEARCH NEWS



Research Mentoring Program Launches

AOSSM recently initiated a research mentoring program that brings together individuals who have shown scientific promise at an early stage of their careers with senior clinician-scientists who have highly successful research programs. The primary goal of this program is to help younger members obtain grant funding from a large national organization such as the NIH. The program is designed for those who do not have a natural mentor at their own institution and who do not have an ongoing mentoring relationship. The official mentorship relationship will have a term of two years. It is hoped, however, that the individuals find the experience sufficiently enriching that they will continue longer-term contact, support, or collaboration.

Applications will be reviewed by the Research Committee and up to five pairs will be selected for participation in the program. Application materials can be located at www.sportsmed.org/researchgrants. If you have any questions, please contact Bart Mann, PhD, AOSSM Research Director at bart@aossm.org.



This program is made possible through a generous grant from ConMed Linvatec.

Pitchers Still Needed for Study

AOSSM members are collaborating in a national multi-center project involving youth baseball pitchers between the ages of 9- and 18-years-old. Already, more than 1,00 young pitchers have been assessed with a goal of enrolling 2,000 subjects. The studies recently received approval through a private, central Institutional Review Board (Western IRB) that will provide IRB review for anyone who does not have their own review board. You can now rapidly join the group without administrative hassle. More information and additional free resources to help promote the study to your patients is available. Visit www.sportsmed.org/Youth-Baseball-Studies. Please contact Director of Research, Bart Mann at bart@aossm.org, if you would like to get involved or if you have any questions.



UPCOMING RESEARCH DEADLINES

AOSSM provides more than \$250,000 worth of research money to orthopaedic sports medicine specialists each year. Deadlines for awards are approaching fast:

Research Awards

November 1

Young Investigator Grant

December 1

Kirkley Grant

December 1

For more information and details visit www.sportsmed.org/researchawards and www.sportsmed.org/researchgrants.

Get Involved and Help STOP Sports Injuries

The late summer days of August and September brew with the excitement of a new academic year as well as the beginning of a new athletic season. The return of our favorite fall sports also marks one of the busier periods for youth sports injuries. When considering the young athletes in your community, we encourage you to continue using STOP Sports Injuries materials to help drive home the sports safety message — whether in football, soccer, volleyball, cross country, cheerleading, or one of the other many fall sports. All of our safety materials are easily accessible at www.stopsportsinjuries.org under Sports Injury Prevention.



Special Thanks to Dr. Axe

We extend our gratitude to Dr. Michael Axe from First State Orthopaedics for generously contributing \$2,500 of his 2012 AOSSM Mr. Sports Medicine Award toward the STOP Sports Injuries Campaign. Dr. Axe continues to support sports safety activities in his Wilmington, Delaware, community, including hosting the local Youth in Sports television program, designed to provide a forum for young athletes in the area.

Tweeting About Safer Youth Sports

The Campaign's #SportsSafety chats, a new social media piece launched during April's Youth Sports Safety Month, provide a forum for health professionals, coaches, parents, and athletes to discuss hot issues affecting youth sports — and provide resources for addressing these issues. The tweet chat series will continue September 5 at 7 p.m. CST as we offer perspectives on the athletic trainer's role in youth sports injury prevention. Follow the campaign at www.twitter.com/SportsSafety or e-mail Joe Siebels at joe@aossm.org for information on upcoming chats, or to learn more about this exciting initiative.

**#SportsSafety**

September 5, 7 PM CST

Role of Athletic Trainers in Youth Sports Injury Prevention

OUTREACH UPDATES

Webinar Tackles Concussions

A special webinar presentation on August 9, in collaboration with The Positive Coaching Alliance, Midwest Orthopaedics at Rush, and the Illinois Athletic Trainers Association (IATA), offered parents and coaches a free opportunity to learn more about concussions and injury prevention in young athletes. Topics included problems and impact from concussions in young athletes, as well as treatment and prevention strategies. Visit www.stopsportsinjuries.org for the link to view the webinar in case you missed it.

Harry Potter Helps Bring Attention to Sports Safety

On July 27 at Fifth Third Bank Ballpark in Geneva, Illinois, STOP Sports Injuries collaborating group Fox Valley Orthopedics held a Harry Potter-themed treasure hunt to encourage kids to be smart on the field and avoid sports injuries. Young athletes were guided through the stadium, receiving numerous sports injury prevention tips throughout the evening.



Campaign on Display at Kaiser Permanente Symposium

The campaign will be featured at the 2012 Kaiser Permanente Medical Group's James O. Johnston Orthopaedic (JOJ) Symposium on September 21 in San Francisco. In addition to a booth to distribute materials to nearly 300 orthopaedic physicians in attendance, Council of Champions member, Tommy John, will serve as the keynote speaker to discuss his experiences and passion for youth sports injury prevention. STOP Advisory Committee member, Dr. Rob Burger, will also present a session on the campaign focusing on the history of the campaign and ways for healthcare professionals to utilize it in their practices.

Help Us Reach Our Goals

As the campaign continues to grow, our need for support is higher than ever. While we move to secure resources for the campaign, your knowledge and connection in the orthopaedic sports medicine community is vital to our continued success.

Any information we receive on your relationships with potential corporate sponsors or patients with a desire to support our cause, might allow us to continue to develop additional programs and initiatives.

Let us know who you know! E-mail Campaign Director Mike Konstant at mike@stopsportsinjuries.org to discuss potential opportunities. As always, your own financial contributions are appreciated. Donate to the campaign today at www.stopsportsinjuries.org/support-us/donate.aspx.



Thank You for Your Support

The campaign's success is thanks in part to financial support of our Champion level sponsors:



We additionally thank AOSM members and others who have graciously contributed to help develop new programs and projects for the campaign.



Online Voting Will Be Available Soon for the 2012–2013 Nominating Committee

The election of the 2012–2013 AOSSM Nominating Committee will begin in mid-September and be online. Watch for an e-mail from AOSSM with an e-ballot link. To ensure voting is anonymous and secure, you will receive a second e-mail after you vote asking to confirm the ballot. Your vote will not count until you affirm the ballot in the second e-mail.

Robert Stanton, MD will serve as Chair of the 2012–2013 Nominating Committee. The five nominees for the four Nominating Committee positions are:

- Christopher Kaeding, MD
- Mininder Kocher, MD
- David McAllister, MD
- Brett Owens, MD
- John Tokish, MD

Watch for the e-mail, vote for four and be sure to confirm your vote!

2013 AOSSM MEMBERSHIP DUES

2013 AOSSM membership dues notices were sent out the first week of August via e-mail. Due to the increasing cost of postage, the Society has decided to send out dues notices via e-mail only. Remember that dues are to be paid within 30 days of receiving your notice. Please contact the Society 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 Czech, Manager, Member Services at Debbie@oassm.org.



AOSSM Introduces New Abstract Submission System

AOSSM is partnering with Coe-Truman Technologies to integrate its online abstract submission and invitation system (OASIS) into the abstract submission process. Each year, AOSSM receives hundreds of research abstracts for the Annual Meeting and Specialty Day. Evaluating these abstracts and selecting the final podium presentations is truly a labor of love for the physician volunteers serving on the Program Committee.

Abstract submission and evaluation has come a long way from the first AOSSM Annual Meeting. Abstracts are now submitted online rather than being mailed to the Society office. This year, the abstract submission process is more robust, reliable, and user-friendly. The evaluation of those abstracts is based on a standardized grading system and is designed to more easily assist the Program Committee make their final selections of key research presentations.

Coe-Truman Technologies recognized the need for a product specifically supporting the abstract and education management process for professional associations. They developed OASIS in 1992 for the American Society of Neuroradiology. Today, more than 200 meetings per year rely on OASIS for abstract submission.

The step-by-step submission process includes standard abstract submission information: title, authors, topics, keywords, and the abstract with images and tables. During the submission process, abstract submitters have access to their abstract for updates and edits.

Once abstracts are selected as final podium presentations, AOSSM can export those abstracts from OASIS into the AOSSM Online Library.

Individuals will be able to utilize this new system for their Annual Meeting abstract submissions in October.

Tips for the Orthopaedic Fellowship Match Webinar Taking Place

Here is your opportunity to learn about the orthopaedic fellowship match process. Mark your calendar for the AAOS “Tips for the Orthopaedic Fellowship Match” free webinar that will be held on Monday, September 24, 2012, at 8:15 p.m. ET. The information covered includes match statistics for a better understanding of the match process, a perspective from fellowship program directors and applicants, and how to navigate the match process.

The faculty, which includes members of the AAOS Board of Specialty Societies (BOS) Fellowship Match Oversight Committee, Fellowship Directors, current fellows who have gone through the match process, and a representative from the San Francisco Matching Program (SF Match), will provide valuable information and statistics so you can manage your fellowship match process and make it less stressful. You will be able to submit questions via e-mail during the webinar.

Visit www.aaos.org for more information.



NAMES IN THE NEWS

Congratulations to AOSSM President, **Christopher Harner, MD**, on being named the head team physician of the Pittsburgh Penguins. He will be joined by AOSSM member, Dharmesh Vyas, MD, assistant team physician, as the lead medical team overseeing the Penguins’ care. The doctors will travel to all of the team’s road games, in addition to the traditional coverage provided at home games.

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In Motion is now available to be personalized with your practice name and logo. For just \$300, you will receive four personalized issues (Spring, Summer, Fall, and Winter)

and the high and low resolution PDFs to send to patients’ inboxes, post on your website, or print out and place in your waiting room. For more information, contact Lisa Weisenberger, Director of Communications at lisa@aossm.org.



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

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

SMU/*In Motion* Adding Videos

Do you have videos related to patient information or would you be willing to shoot one related to a hot sports medicine topic? If so, please contact Lisa Weisenberger at lisa@aossm.org.

Board Review Course Now Available for Online Purchase

Learn from some of today's leading subspecialty experts in the online version of the Board Review course. You'll have access to more than 19 hours of intensive review of operative and non-operative diagnosis and treatment options for sports-related orthopaedic and medical conditions. To purchase, visit the website and click on "online meetings."

Did you miss the AOSSM 2012 Annual Meeting? Go online.

Why take notes at a meeting when you can review the presentation online? AOSSM records presentations at Specialty Day and the Annual Meeting. You can purchase an annual subscription or single meeting access. Online Meetings are a great way to review presentations or share new research with colleagues and fellows. For more information visit www.sportsmed.org/onlinemeetings.

Need a Review? Purchase 2012 Self Assessment Today

Looking for a great review of sports medicine? The 2012 Self Assessment contains 125 new questions designed to guide your review of diagnosing, treating, and rehabilitating common orthopaedic sports medicine injuries and conditions. Each question contains commentary and references to support your learning. Complete the exam and earn 12 AMA PRA Category 1™ credits. Self Assessment can count toward your ABOS MOC Part 2 requirement, too.

Earn CME Through Current Concepts in *AJSM*

Where can you find the most up-to-date information on critical clinical topics in sports medicine? Current Concepts, the journal-based CME activity, is available each month in *AJSM*. Reflect and evaluate research-based information you can use in your practice while you earn AMA PRA Category 1™ credit. For more information visit www.ajsm.org.

**Athletic Health Handbook
On Sale Now for Nearly 10% Off**

Are you looking for a quick, easy reference on topics you frequently face in your everyday practice or sporting event?

AOSSM has the tool for you — the *Athletic Health Handbook: A Key Resource for the Team Physician, Athletic Trainer and Physical Therapist*. This unique 3-ring handbook provides the team physician, athletic trainer, and physical therapist with up-to-date Team Physician Corner articles and consensus statements from *Sports Medicine Update*, all in one location, for quick and easy referencing. Handbook purchasers also receive an added bonus of downloadable, annual updates with all of the latest information.

»» AOSSM Members receive one copy of the Athletic Health Handbook for just \$10! Additional copies and non-member price is now \$35! Visit the online store at www.sportsmed.org to order today!

**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.



Join the Traveling Fellowship Family and Host a Surgeon



The Traveling Fellowship Committee is currently seeking volunteers to host the Traveling Fellows for next year's North American tour. The Traveling Fellowship Program serves as a vital link between the Society and its counterparts in Europe, Asia Pacific, and Latin America. Tours between AOSSM and Europe or the Asia Pacific occur every other year. Tours between the Society and Latin America, take place every three years. Nearly 200 individuals have participated in the program, which most report have had a positive impact on their careers and personal lives.

Each year, the Society hosts three young and promising orthopaedic sports medicine specialists and one senior surgeon who acts as Godparent. These four Traveling Fellows usually tour six sports medicine centers in North America and attend the AOSSM Annual Meeting during their 3 and a half week stay.

Individual hosts are responsible for the costs of lodging, meals, local transportation, entertainment, and associated costs of the fellows. Hosts ensure that the fellows are met at the airport when they arrive and arrangements are made for taking them to the airport for departure. The typical visit blends time spent in scientific endeavors, a tour of the host facility, observation in the operating room, social functions, and recreation. Hosts are encouraged to use their creativity to plan a unique and exciting experience. For example, hosts have taken the fellows on special tours of historic sites, gone to sporting events, and arranged

shopping trips and outdoor activities unique to their locations. It is also important that hosts add downtime into the busy schedules — two to three hours per day is suggested.

The Traveling Fellowship Committee also encourages members to “group host,” with several institutions in one area sharing the hosting duties and costs, thus adding to the diversity of the tour.

Next year's tour will host fellows from Europe. The tour will tentatively take place from June 19 to July 10, ending with the AOSSM meeting in Chicago, Illinois, from July 11 to July 14, 2013. There will be one free day during the middle of this tour to allow the fellows to rest.

If you are interested in hosting the Traveling Fellows in 2013, please fill out the form on the following page or online at www.sportsmed.org/travelingfellowship and e-mail or fax it to Debbie Czech by November 30, 2012. Applications received after the deadline will not be accepted. Please be sure to indicate which three or four day period from June 19 to July 10 when you will be unable to host the fellows.

Please attach a sample itinerary detailing how you would blend time spent in scientific endeavors, a tour of the host facility, tours of other sports medicine facilities and research facilities in the area, social functions, sightseeing, and recreation. This information will help the committee with host selection and planning.

AOSSM Traveling Fellowship Tour Goes to Asia Pacific in 2013

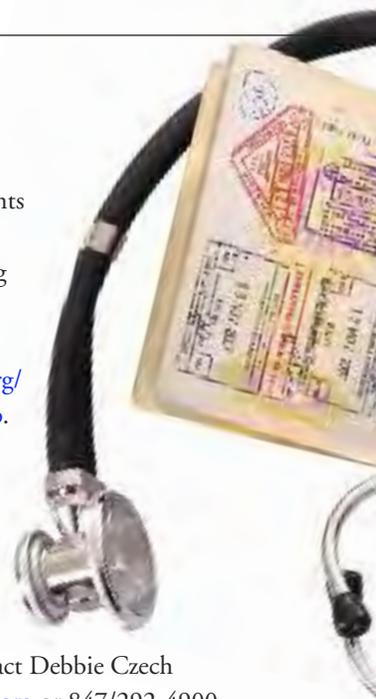
Applications are now being accepted for the 2013 AOSSM/AOSSM (APKASS) Traveling Fellowship Tour.

Dr. Allen Anderson from Tennessee Orthopaedic Alliance has been selected to be the Godfather for the AOSSM/APKASS Traveling Fellowship tour. Dr. Anderson was a former traveling fellow in 1989 traveling to the Asia Pacific region. He has also been on the AOSSM Board of Directors and the Medical Publishing Board of Trustees. The tour will tentatively take place for four weeks starting around May 21 at the 2013 JOA Congress in Hiroshima, Japan, and ending around June 18. Tentative

stops are Hiroshima and Kobe, Japan; Beijing and Shanghai, China; Hong Kong; Kuala Lumpur, Malaysia; and Singapore.

Applicants must be orthopaedic surgeons currently practicing in North America, who are 45 years of age or under, board certified, and are either AOSSM members or have completed accredited sports medicine fellowships. Applicants must be interested in fostering a meaningful exchange of scientific information, stimulating research, and developing friendships with sports medicine colleagues. If this describes you, then the traveling fellowship is for you.

The requirements and application to become a Traveling Fellow can be downloaded at www.sportsmed.org/travelingfellowship. All applications must be received by the Society no later than October 31, 2012. For information, contact Debbie Czech at Debbie@aossm.org or 847/292-4900.



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





WASHINGTON UPDATE

Orthopaedic Updates from Washington

By Jamie Gregorian, Esq., AAOS Senior Manager, Specialty Society Affairs and Research Advocacy

As Congress speeds toward a five-week recess that will include both the Republican and Democratic National Conventions, there is still a flurry of activity in both the legislative and regulatory arenas. Most observers have noted the unlikelihood of major legislation passing before the November elections, but there are still several deadlines that Congress will have to tend to, not the least of which is the September 30 end to the fiscal year.

In July, the House of Representatives passed the 33rd version of an Affordable Care Act repeal bill. As noted by MedPage Today, “[t]he 244-185 vote, largely along party lines [in the Republican-controlled House], was thought to be mainly for the purposes of making a political statement, since the bill was expected to be dead on arrival in the Democratic-controlled Senate. President Obama also has said he would veto the measure.”

Also in late July, as expected, President Obama “signed the Food and Drug Administration Safety and Innovation Act, which reauthorizes user fees that the FDA collects from the drug and medical-device industries.” The bill included the Prescription Drug User Fee Act (PDUFA), and the Medical Device User Fee Act (MDUFA).

Prior to leaving town for the August recess, House and Senate leaders unveiled a stopgap measure to fund the government for six months beyond the September 30 fiscal year end. This would avert a shutdown

—something neither party wants heading into an election—and keep the federal government operating through March. The deal would keep the government funded at the same levels of last year’s debt ceiling law. The agreement would fund the government for six months when the current fiscal year ends on September 30, setting agency spending for the year at \$1.047 trillion, as agreed to in last summer’s debt deal. It is just above this year’s level of \$1.043 trillion. Observers long recognized that there was little chance of a long-term budget deal prior to the September 30 end to the fiscal year.

Also before recess, Senate Minority Leader Mitch McConnell (R-KY) filed an amendment to a cybersecurity bill to fully repeal the Affordable Care Act, the third time he has introduced a repeal amendment since the Supreme Court upheld the law. Senate Majority Leader Harry Reid later called such a request “ridiculous,” and did not bring the amendment up for a vote. Minority Leader McConnell also asked for a vote on full repeal of the health law when the Senate returns to session after the August recess, challenging Senate Democrats to go on the record if they still support it. Senate Majority Leader Harry Reid objected, saying Republicans “continue to want to fight battles that are already over.”

The next PPACA battles are expected to be waged on exchanges. On August 2, the Internal Revenue Service (IRS)

announced that federal health exchanges can provide premium tax subsidies, a decision that drew significant protest from critics of the law. Opponents of PPACA argue that the statute specifically provides tax credits to purchase insurance only through exchanges established by the states, not the federal government.

Moderate Rep. Steve LaTourette (R-OH), who shook Washington with a surprise announcement that he was retiring in frustration, said that a bipartisan House group will try to launch a lame-duck effort to reform Medicare, part of what he called a “big deal” to reduce the federal deficit by trillions of dollars. The reform effort will be modeled after the Simpson-Bowles Commission. The commission, named for co-chairs Alan Simpson and Erskine Bowles is a Presidential Commission created in 2010 by President Obama to identify “policies to improve the fiscal situation in the medium term and to achieve fiscal sustainability over the long run.”

In state government news, Massachusetts lawmakers gave final approval to a bill designed to save up to \$200 billion in health care costs over the next 15 years. Legislative leaders say the bill will help guarantee the future of the state’s landmark health care law and make Massachusetts the first state to set a goal limiting the future growth of health care costs. The bill also encourages the creation of accountable care organizations.





ORTHOPAEDIC SPORTS MEDICINE **AND** ARTHROSCOPY MATCH

AANA and AOSSM are pleased to announce the following sports medicine/arthroscopy fellowship programs are participating in the Orthopaedic Sports Medicine and Arthroscopy Match for 2013. The Match, administered through the San Francisco Matching Program (www.sfmach.org), provides an orderly, equitable selection process for applicants and fellowship programs. For the most current match information, please visit www.sportsmed.org/fellowships.

**3B Orthopaedic at Penn/
Penn Hospital of the University
of Penn Health System**
Arthur R. Bartolozzi, MD
Philadelphia, PA

Allegheny General Hospital Program
Sam Akhavan, MD
Pittsburgh, PA

**American Sports Medicine Institute
(St. Vincent's) Program**
Jeffrey R. Dugas, MD
Birmingham, AL

**Andrews Research and Education
Institute Program**
James R. Andrews, MD
Gulf Breeze, FL

ASMI/Lemak Sports Medicine Program
Lawrence J. Lemak, MD
Birmingham, AL

Aspen Sports Medicine Foundation Program
N. Lindsay Harris, Jr., MD
Aspen, CO

**Atlanta Sports Medicine
& Cartilage Reconstruction
Fellowship Program**
Scott D. Gillogly, MD
Atlanta, GA

**Banner Good Samaritan
Medical Center Program**
Anikar Chhabra
Phoenix, AZ

**Barton/Lake Tahoe Sports Medicine
Fellowship Program**
Keith R. Swanson, MD
Zephyr Cove, NV

Baylor College of Medicine Program
David M. Green, MD
Houston, TX

**Beacon Orthopaedics & Sports Medicine
Fellowship Program**
Timothy E. Kremchek, MD
Sharonville, OH

Boston University Medical Center Program
Thomas A. Einhorn, MD
Boston, MA

**Brigham & Women's Hospital,
Harvard Medical School Program**
Scott D. Martin, MD
Chestnut Hill, MA

Brown University Program
Paul D. Fadale, MD
Providence, RI

Children's Hospital (Boston) Program
Lyle J. Micheli, MD
Boston, MA

**Cincinnati Sports Medicine
& Orthopaedic Center Program**
Frank R. Noyes, MD
Cincinnati, OH

Cleveland Clinic Sports Medicine Program
Mark S. Schickendantz, MD
Cleveland, OH

Congress Medical Associates Program
Gregory J. Adamson, MD
Pasadena, CA

Detroit Medical Center Program
Stephen E. Lemos, MD, PhD
Warren, MI

**Doctors' Hospital (Baptist Health
of South Florida) Program**
F. Harlan Selesnick, MD
Coral Gables, FL

Duke University Hospital Program
Dean C. Taylor, MD
Durham, NC

**Emory University Orthopaedic Sports
Medicine Fellowship Program**
Spero G. Karas, MD
Atlanta, GA

**Fairview Southdale Hospital/
MOSMI Program**
Christopher M. Larson, MD
Minneapolis, MN

Henry Ford Hospital Program
Patricia A. Kolowich, MD
Detroit, MI

Hospital for Special Surgery Program
Scott A. Rodeo, MD
New York, NY

Hughston Foundation Program
Champ L. Baker, Jr., MD
Columbus, GA

**Indiana University School
of Medicine Program**
Arthur C. Rettig, MD
Indianapolis, IN

**Jackson Memorial Hospital/
Jackson Health Systems Program**
Bryson P. Lesniak, MD
Miami, FL

**Kaiser Permanente
Orange County Program**
Brent R. Davis, MD
Irvine, CA



Kaiser Permanente San Diego Program

Edmond Pai Young, MD
El Cajon, CA

Kerlan-Jobe Orthopaedic Clinic Program

Neal S. ElAttrache, MD
Los Angeles, CA

Lenox Hill Hospital Program

Barton Nisonson, MD
New York, NY

**Massachusetts General Hospital/
Harvard Medical School Program**

Thomas J. Gill IV, MD
Boston, MA

Mayo Clinic, College of Medicine Program

Michael J. Stuart, MD
Rochester, MN

**Mercy Hospital Anderson/University of
Cincinnati College of Medicine Program**

Denver T. Stanfield, MD
Cincinnati, OH

Methodist Hospital (Houston) Program

David M. Lintner, MD
Houston, TX

**Mississippi Sports Medicine
& Orthopaedic Center Program**

Larry D. Field, MD
Jackson, MS

New England Baptist Hospital Program

Mark E. Steiner, MD
Boston, MA

**New Mexico Orthopaedic Associates
Program**

Samuel K. Tabet, MD
Albuquerque, NM

**Northwestern University–McGaw Medical
Center Fellowship Program**

Michael A. Terry, MD
Chicago, IL

NYU Hospital for Joint Diseases Program

Orrin H. Sherman, MD
New York, NY

Ochsner Clinic Foundation Program

Deryk G. Jones, MD
Jefferson, LA

Ohio State University Hospital Program

Christopher C. Kaeding, MD
Columbus, OH

**OrthoCarolina Sports Medicine,
Shoulder & Elbow Program**

James E. Fleischli, MD
Charlotte, NC

OrthoIndy Program

Jack Farr II, MD
Greenwood, IN

Orthopaedic Research of Virginia Program

John F. Meyers, MD
Richmond, VA

**Penn State Milton S. Hershey Medical
Center Program**

Wayne J. Sebastianelli, MD
State College, PA

Rush University Medical Center Program

Bernard R. Bach, Jr., MD
Chicago, IL

**San Diego Arthroscopy
& Sports Medicine Program**

James P. Tasto, MD
San Diego, CA

**Santa Monica Orthopaedic
& Sports Medicine Group Program**

Bert R. Mandelbaum, MD
Santa Monica, CA

SOAR Sports Medicine Fellowship Program

Michael F. Dillingham, MD
Redwood City, CA

**Southern California Orthopaedic Institute
Program**

Richard D. Ferkel, MD
Van Nuys, CA

Sports Clinic Laguna Hills Program

Wesley M. Nottage, MD
Laguna Hills, CA

**Stanford Orthopaedic Sports Medicine
Fellowship Program**

Marc R. Safran, MD
Redwood City, CA

Steadman Hawkins Clinic–Denver Program

Theodore F. Schlegel, MD
Greenwood Village, CO

**Steadman Hawkins Clinic of the Carolinas
Program**

Richard J. Hawkins, MD, FRCSC
Greenville, SC

**Steadman Philippon Research Institute
Program**

J. Richard Steadman, MD
Vail, CO

Taos Orthopaedic Institute Program

James H. Lubowitz, MD
Taos, NM

**The Orthopaedic Foundation
for Active Lifestyles Sports Medicine
Fellowship**

Kevin D. Plancher, MD
Cos Cob, CT

Thomas Jefferson University Program

Michael G. Ciccotti, MD
Philadelphia, PA

TRIA Orthopaedic Center Program

Gary B. Fetzter, MD
Bloomington, MN

UCLA Medical Center Program

David R. McAllister, MD
Los Angeles, CA

**UHZ Sports Medicine Institute Program
(HealthSouth Doctors Hospital)**

John W. Uribe, MD
Coral Gables, FL

Union Memorial Hospital Program

Richard Y. Hinton, MD, MPH, MEd, PT
Baltimore, MD

University at Buffalo Program

Leslie J. Bisson, MD
Buffalo, NY

University of California (Davis) Program

Richard A. Marder, MD
Sacramento, CA

**University of California San Francisco
Program**

Christina R. Allen, MD
San Francisco, CA

University of Chicago Program

Sherwin S. W. Ho, MD, BA
Chicago, IL

**University of Colorado Health Science
Center Program**

Eric C. McCarty, MD
Boulder, CO

University of Connecticut Program

Robert A. Arciero, MD
Farmington, CT

**University of Illinois at Chicago–
Center for Athletic Medicine Program**

Preston M. Wolin, MD
Chicago, IL

**University of Iowa Hospitals
& Clinics Program**

Brian R. Wolf, MD, MS
Iowa City, IA

**University of Kentucky Sports Medicine
Program**

Scott D. Mair, MD
Lexington, KY

University of Massachusetts Program

Brian D. Busconi, MD
Worcester, MA

University of Michigan Program

Bruce S. Miller, MD, MS
Ann Arbor, MI

University of Missouri

James P. Stannard, MD
Columbia, MO

**University of Missouri at Kansas City
Program**

Jon E. Browne, MD
Leawood, KS

University of New Mexico Program

Daniel C. Wascher, MD
Albuquerque, NM

**University of Pittsburgh/UPMC Medical
Education Program**

Christopher D. Harner, MD
Pittsburgh, PA

**University of Rochester Medical Center
Program**

Michael D. Maloney, MD
Rochester, NY

University of South Florida Program

Charles C. Nofsinger, MD
Tampa, FL

**University of Tennessee–Campbell Clinic
Program**

Frederick M. Azar, MD
Memphis, TN

**University of Texas Health Science Center
at San Antonio Program**

Jesse C. DeLee, MD
San Antonio, TX

University of Utah Program

Robert T. Burks, MD
Salt Lake City, UT

**University of Virginia Health Systems
Program**

David R. Diduch, MD
Charlottesville, VA

**University of Wisconsin Hospital
& Clinics Program**

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Madison, WI

USC Sports Medicine Fellowship Program

James E. Tibone, MD
Los Angeles, CA

Vanderbilt University Program

John E. Kuhn, MD
Nashville, TN

Wake Forest University School of Medicine

David F. Martin, MD
Winston Salem, NC

Washington University Program

Matthew J. Matava, MD
Chesterfield, MO

**West Coast Sports Medicine Foundation
Program**

Keith S. Feder, MD
Manhattan Beach, CA

William Beaumont Hospital Program

Kyle Anderson, MD
Royal Oak, MI



Upcoming Meetings & Courses

For more information and to register, visit www.sportsmed.org/meetings.

Advanced Team Physician Course

New Orleans, Louisiana | December 6–9, 2012

AOSSM 2013 Specialty Day

Chicago, Illinois | March 23, 2013

Sports Medicine and the NFL: The Playbook for 2013

Boston, Massachusetts | May 9–11, 2013

AOSSM 2013 Annual Meeting

Chicago, Illinois | July 11–14, 2013





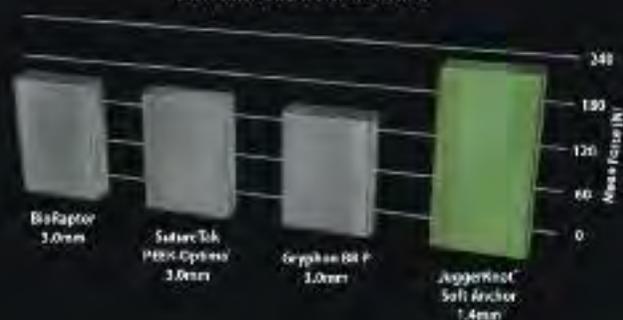
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1. Barber FA, Herber MA, Beavis RC, and Orio TB: "Suture Anchor Materials, Eyelets, and Designs: Update 2008." *Arthroscopy* Vol. 24, No. 8 pp 839-867, 2008.

2. Barber FA, Herber MA, Hapco C, Rasley JH, Barber CA, Dynam JA, Hmack SA: "Suture Anchor Update 2010." *Arthroscopy* 2010; In Press.

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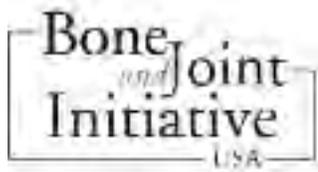
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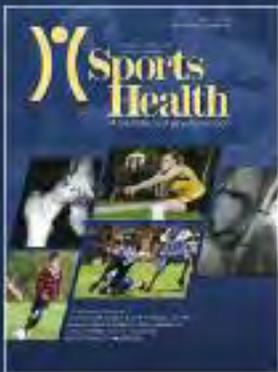
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