MEDIA ALERT:  
AAOS 2015 Annual Meeting News & Highlights  
Embargoed: March 24-28, 2015

If you’re looking for news on total joint replacement and trends among younger demographics; youth, sports; gender differences in care and recovery; driving performance after surgery among many other topics, please join the American Academy of Orthopaedic Surgeons at its 2015 annual meeting in Las Vegas at the Venetian/Sands EXPO Convention Center Tuesday through Saturday, March 24-28, 2015. The AAOS annual meeting is the world’s largest meeting of orthopaedic surgeons, researchers and allied health professionals, who will meet to share the latest information on orthopaedic treatments, advancements and research.

Registration:

- Media can register online at http://newsroom.aaos.org/media-resources/Annual-Meeting
- For media interested in covering health care policy news, a calendar of events and interview opportunities will be available onsite in the electronic press kit and in the press room.
- For a full review of studies presented on-site please visit www.aaos.org/ameducation

We have provided links to study abstracts of selected topics below. All links include study presentation dates. All individual studies are embargoed until the date of each presentation.

Please note: all posters occur Tuesday through Saturday.  
The embargo date for ALL POSTERS is 12:01 a.m. PT on Tuesday, March 24.

This is indicated respectively below (though actual presentation dates of posters may appear differently on the linked abstracts).

For further information, please contact Robin Waxenberg at 212/489-8006 or robin@robwax.com.

Factors Influencing Demand for Total Hip Arthroplasty in Patients Younger Than 65
Total hip arthroplasty in patients aged 45 to 64 nearly doubled in the U.S. from 2002 – 2011, from approximately 68,000 to 128,000. The need for THA among this age group is growing faster than in the elderly population. Factors may include population growth, hip arthritis prevalence, an active lifestyle and alternatively obesity, hospital and physician reimbursement, surgeon workforce and change in bearing materials. Researchers studied a Nationwide Inpatient Sample to identify primary THAs performed during this period. In 2011, 42.3 percent of THAs were performed in patients age 45 to 64 compared to 33.9 percent in 2002. Utilization of THA in this age group increased 89.2 percent from 2002 to 2011, from approximately 68,000 THAs in 2002 to 128,000 THAs in 2011.
http://tinyurl.com/qftn9b5, Thursday, March 26 (paper).
Racial and Ethnic Disparities in Hospital Readmission for Total Joint Arthroplasty
Researchers analyzed a Connecticut Hospital discharge data from 2008-2012 which included 51,999 adult patients 18 or older admitted for joint replacement surgery. Black and Hispanic patients were 62 and 50 percent, respectively, more likely to be readmitted to the hospital within 30 days after total joint replacement (TJR) compared to white patients. Reasons included postoperative infection; infection and inflammatory reaction due to internal joint prosthesis; hematoma and dislocation of joint. Rates were also higher among those covered by Medicaid or Medicare. After controlling for two key variables implicated in race and ethnic disparities in hospital readmission—preoperative co-morbidities and type of insurance coverage—black patients still had a 35% higher likelihood of all-cause 30 day readmission compared to white patients. The author’s ongoing research will focus on the cause of the high readmission rate, such as the patient’s connection to primary care and patient-provider communication. http://tinyurl.com/pv77uhh, Thursday, March 26 (paper).

Pediatric Automobile versus Pedestrian Accidents in an Urban Setting
Automobile versus pedestrian accidents in urban settings are among the most common causes of polytrauma and isolated long bone fractures in children and adolescents. This study identified circumstances at the scene and injury types of a consecutive series of pediatric patients struck by motor vehicles. Authors reviewed medical records of all patients presented to the St. Christopher’s Hospital for Children emergency department in Philadelphia in 2012 and believe issues including supervision, dangerous patient behaviors, proximity to schools and bus stops and season effects could be high risk factors for these injuries. A total of 100 patients (79 males and 21 females) with the average age of eight were included in the study group. Most common injuries were tibial shaft fractures, femoral shaft fractures and ankle fractures. Most common times of injury were around school dismissal and evening hours and most prevalent during June and other spring months. Accidents occurred most commonly when no parental supervision was present during peak injury times. Injury prevention efforts should focus on improved supervision at school dismissal and public transportation safety near school zones. http://tinyurl.com/m2pfjkv, Tuesday, March 24 (poster).

Biologic Augmentation of Rotator Cuff Repair with Mesenchymal Stem Cells Improves Healing and Prevents Re-Tears
An injection of a patient’s bone marrow stem cells during rotator cuff surgery significantly improved healing and tendon durability. Forty-five patients received this therapy and were compared to a control group that did not. One hundred percent of the study group had healed by six months and 87% of that group showed substantial improvement after the 10-year milestone (versus 67% and 44% of the control group respectively). http://tinyurl.com/m8omej9, Thursday, March 26 (paper).

When Is It Safe For Patients to Drive After Right Total Hip Arthroscopy? Previously, most studies recommend six weeks postoperatively before patients can return to driving safely. With recent advancements in surgical techniques and pain management, safe return to driving may have changed. Authors conducted a prospective study assessing driving performance of 38 patients in terms of brake reaction time after total hip arthroplasty (October 2013-March 2014). All patients underwent two, four and six weeks’ post-op brake reaction test. Eighty-seven percent of patients were able to reach their baseline within two weeks; 13% within four. The findings may allow doctors to encourage patients to re-evaluate their driving ability as soon as two weeks after THR. Patients should never drive if they are still taking narcotic pain medication. http://tinyurl.com/q9afmg4, March 24 (poster).
Prevalence of Abnormal Vitamin D Levels Among Division I NCAA Athletes
Researchers studied a group of 223 NCAA Division I athletes between June 2012 and August 2012, and determined that more than one third had abnormal Vitamin D levels. Athletes with dark skin tones were at much higher risk than white athletes; and males more likely to be deficient than females. Recent studies have demonstrated a direct relationship between serum 25 (OH) D levels and muscle power, force, velocity and optimal bone mass, yet the prevalence of deficiency among college athletes has not been well documented.  http://tinyurl.com/o9bw8ms, Friday, March 27 (paper).

Sex-Related Difference in Morbidity and Mortality Following Total Hip and Knee Arthroplasty
Researchers sought to determine the rates of revision, re-operation, and common medical complications following total knee (TKR) and total hip replacement (THR) differed based on sex. Using a validated administrative database in Ontario, Canada, they identified 37,881 (median age 58, 53.8% female) and 59,564 (median age 68 years; 60.5% female) who underwent THA and TKA respectively. Men are at significantly greater risk of postoperative acute myocardial infarction; following both THR and TKR; and at greater risk of infection and implant failure post-TKR. Future studies should be directed towards determining the cause of these disparities.  http://tinyurl.com/nxcyrnx, Thursday, March 26 (paper).

The Effect of Training Shoes on Running Kinematics in Older Runners
With the recent interest in minimalist shoes or barefoot running featuring forefoot strike versus heel strike, researchers examined experienced runners to see if a quick change in running pattern would occur with a change in shoe conditions. Twenty-six runners with more than 10 years of experience and over the age of 30 were tested on a treadmill at various speeds. Running barefoot resulted in a significant drop in percent heel strike at all speeds. Forty percent of men and 20% of women persisted with consistent strike patters with and without shoes. Older runners (age 30 and older) are not able to adapt as quickly to running barefoot, according to the study, and their inability to adapt the foot strike to the change in shoe type may put these runners at increased risk of injury. Older runners should be cautious when transitioning to a more minimalist type of shoe.  http://tinyurl.com/n7o6twd, Tuesday, March 24 (poster).

YOUTH BASEBALL ARM PAIN AND PRACTICES
Youth Baseball Pitchers’ Caregivers and Safe Pitching Practices: A Survey-Based Analysis
Ensuring the safety of the more than 200,000 teams of youth baseball participants is a priority of coaches, parents and medical experts. Through a 22-question survey distributed to 60 parents of youth baseball pitchers (ages 9-18), authors sought to evaluate caregiver’s’ knowledge of safe guidelines provided by USA Baseball and other leading organizations. A large portion were unaware and or uncompliant with recommendations, though those with athletes older than 13 were more aware of guidelines. Results suggest further measures need to be taken to improve education and compliance. http://tinyurl.com/klhz93e, Wednesday, March 25 (paper).

Arm Pain in Youth Baseball Players: A Survey of “Healthy” Players
Overuse injury in youth baseball players is increasing and have been correlated to pitching mechanics and pitch counts/types. A total of 203 players in New York and New Jersey completed a survey on arm pain created by athletic trainers, doctors and coaches. Twenty-three percent reported a prior overuse injury; 26% and 20% reported their arm never hurt when throwing or the day after throwing respectively; and 46% reported at least once being encouraged to keep playing despite arm pain. Those with prior injury were most likely to have arm pain while throwing, fatigue during games and practices
and felt the need to play despite pain. Overall, a majority of healthy players reported some baseline pain and many players suffer adverse psychosocial effects from this pain. 

http://tinyurl.com/q42qshv, Tuesday, March 24 (poster).

Modifiable Risk Factors in Patients with Low Back Pain (LBP)
Low back pain is a common diagnosis and results in increases in disability, sick days and medical costs to society. Authors sought to determine relative risk of LBP in patients with risk factors of nicotine dependence, obesity, alcohol abuse and depressive disorders. Researchers reviewed on a database of 26 million patients, 1.2 million of who had LBP. The incidence of LBP in the general population was 4%; 16.53% in nicotine dependent patients; 14.66% in alcohol abuse patients; 16.75% in patients with a high BMI and 19.30% in patients with depression. Authors concluded that defining the prevalence of these risk factors will help physicians more closely monitor and control patients and their pain and to ultimately minimize cost and potential disability. http://tinyurl.com/m72myn9, Wednesday, March 25 (paper).

Economic and Outcomes Analysis of Bisphosphonates Use after Distal Radius Fracture for Prevention of Hip Fracture
Authors developed a model that demonstrated the routine treatment of all women over 65 suffering distal radius fracture with bisphosphonates would result in a significant reduction in hip fracture at a cost of $2 billion annually. This translates to an estimated 94,888 lifetime of hip fractures prevented at a cost of $205,534 per fracture avoided. Confirming patient osteoporosis and fracture risk through a DEXA Scan (dual X-ray Absorptiometry) before prescribing bisphosphonates remains the most cost-effective method for treating osteoporosis and avoiding subsequent fractures. http://tinyurl.com/nfgxol3, Tuesday, March 24 (paper).

Sex Life and the Impact of Operative Intervention for Degenerative Spinal Condition
Sex life is a relevant consideration for 70% of patients enrolled in the Spine Patients Outcomes Research Trial (SPORT) study with spondylolisthesis (DS) and spinal stenosis (SS). Authors conducted a secondary analysis of the trial to determine relevance of a sex-life: total of 1,235 patients with DS and SS were included. Older, female and unmarried patients and those with coexisting joint problems or hypertension were more likely to state that a sex life did not apply to them. Compared to the non-operative group, fewer patients in the operative group reported pain. http://tinyurl.com/q8w5w6p, Tuesday, March 24 (paper).

The Health Economic Implications of Perioperative Delirium in Older Patients with Low-Energy Hip Fractures
Authors reviewed a database of patients 65 years of age or older admitted to a single orthopaedic center and who underwent treatment of a low energy hip fracture between January 2011-December 2012. A total of 242 patients with a mean age of 82 were studied with nearly 48% (116 patients) experiencing delirium during admission to the hospital. This was associated with significant incremental length of stay and episode of care costs. The study reinforces the importance of implementing cost-effective interventions to reduce incidence. http://tinyurl.com/kem98p4, Tuesday, March 24 (paper).

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