AAOS 2010 Annual Meeting Preview
March 9-13, New Orleans

If you’re looking for breaking news on the devastation in Haiti and lessons learned from orthopaedic surgeons on the ground; platelet rich plasma (PRP), professional and youth sports injuries; advances in biologic implants and gene therapy; or the increase in trauma, open fracture and amputation from ATV use, please join the American Academy of Orthopaedic Surgeons at its 2010 annual meeting at the Ernest N. Morial Convention Center in New Orleans, Louisiana, Tuesday through Saturday, March 9 – 13. The world’s largest meeting of orthopaedic surgeons, researchers and allied health professionals will meet to share the latest information on orthopaedic treatments, advancements and research.

Note: all information is EMBARGOED until day and time of presentation

Each of these topics will include media briefings on-site in New Orleans. AAOS is also releasing timely clinical and highlight news as outlined below. All media briefings will take place in room 206 at the Morial Convention Center (900 Convention Center Boulevard, New Orleans, La.).

In addition to the media briefing topics (full schedule and listings at the end of this document), AAOS is releasing timely clinical news and will spotlight the following topics:

- Total hip replacements in pregnant women – could you be putting your child at risk?
- Dynamic balance training and the good news for osteoarthritis patients after total knee replacement
- Narcotic use and impact on patient satisfaction after total knee replacement
- The debate on bisphosphonates: a closer look at the effects of treatment on hip fractures
- Return to driving and work post-orthopedic injury...and so much more!
Other **hot topics** include:

- **Hormonal influence** and glenohumeral laxity in female athletes
- Long term population-based results of **total hip replacements in younger patients**
- Incidence of **ankle sprains** in the US

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

Links to study abstracts are included under each listing and we have provided highlights of select briefings below:

**ATVs and Trauma: Participation and Injuries on the Rise**  
**Moderator:** Kevin Shea, MD  
**Panelists:** Gregg Wendell Schellack, DO, Jeffrey R. Sawyer, MD, Annalise N. Larson, MD

In 2008, nearly 28 percent of all ATV-related injuries were to children under the age of 16 years old. In addition, there has been an alarming increase in the number of amputations and even death from the use of all terrain vehicles (ATVs). Though popular among children and adults of all ages, serious consideration needs to be given to the design and safety of these vehicles and education among families and general riders regarding safe use. The increase in ATV-related injuries also places greater demand on the health care system in terms of hospitalization time and charges.

- ATV Multi-Rider Indicate Greater Risks of Amputation, Open Fracture and Trauma  

- Trends in Increased ATV-Related Spine Injuries in Children in the United States  

- Motorcross Morbidity, Economic Cost and Injury among Children  

**Platelet Rich Plasma is a Hot Topic and Widely Demanded Procedure: Does it Work?**  
**Moderator:** Rocco Monto, MD  
**Panelists:** Stephen C. Weber, MD, Taco Gosens, MD
Platelet rich plasma or PRP has become a treatment increasingly in demand for musculoskeletal injuries. Despite its high cost, its appeal has increased among amateur and professional athletes alike. PRP has been hotly debated in the medical profession and media but does it really work? In studies conducted throughout the world, orthopaedic surgeons are showing the benefits of this procedure for tendonitis, rotator cuff repair, tennis elbow and osteoarthritis, among other conditions.

- PRP Effectively Treats Chronic Achilles Tendonosis

- Platelet-Rich Fibrin Matrix in Arthroscopic Rotator Cuff Repair: Prospective Randomized Trial

- PRP More Effective than Corticosteroid Injections in Patients With Tennis Elbow

- PRP Intra-Articular Injections Demonstrate More and Longer Efficacy than Viscosupplementation as Treatment for Early Osteoarthritis

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**Professional Sports Injuries: Protecting Athletes and Extending Careers through Operative & Non-Operative Care**

**Moderator:** Darren L. Johnson, MD  
**Panelists:** Ian R. Byram, MD, Robert Brophy, MD, Joseph K. Weistroffer, MD

Equally important to an athlete's superior skills is his or her health. Lack of preseason strength and conditioning can be a predictor of potential injury. New studies look at these benchmarks in shoulder stabilization and other studies explore the efficacy of non-operative vs. operative procedures for disc herniation in an effort to treat injuries and extend the length of careers of professional baseball and football players.

- Preseason Shoulder Strength Measurements Can Predict Injury in Professional Baseball Pitchers

- Effect of Shoulder Stabilization on Career Length in NFL Athletes: A Case Control Study

- National Football League Linemen with Disc Herniation Have Superior Outcomes with Disectomy
• Outcomes Following Nonoperative and Operative Treatment for Cervical Disc Herniations in NFL Players

**Beyond Biologics, Gene Therapy, and New Frontiers in Orthopaedic Care: What the New Decade will Bring**

**Moderator:** Tom Einhorn, MD

**Panelists:** Young Lae Moon, MD, Scott Boden, MD, Scott Rodeo, MD and Johnny Huard, PhD

Orthopaedic surgeons and researchers are pushing the limits in biologics, but are stem cells, gene therapy or tissue engineering really working? Injection of bone marrow plasma for repair of rotator cuff tear and the use of biologics in healing have been shown to improve functional outcome. Several studies have looked at the advances in care and treatment, safety and efficacy of these techniques, and the use of gene therapy and tissue engineering on the orthopaedic landscape.

• Efficacy of Autologous Bone Marrow Plasma Injection after Arthroscopic Repair of Rotator Cuff Tear

**BREAKING CLINICAL NEWS:**

The following is timely clinical news presented on-site. Other topics include: youth sport injuries and a close look at elbow and ACL-related conditions; ankle sprain on the increase and advances in spinal surgeries. Links to abstracts are included below and available for all other studies pending interest.

**Incidence of Ankle Sprains in the United States**

**Presenter:** Brian Waterman, MD

In the largest incidence study to date, researchers reviewed an estimated 3,140,132 reports of ankle sprains and found that second decade of life and black race are associated with higher risks of ankle sprain. Males between 15 and 24 years old had higher rates of ankle sprains than females, whereas females over 30 years old had higher rates than males. Half of all ankle sprains occur from athletic activity such as basketball or football.


**Dynamic Balance on the Rise: Good News for Osteoarthritis Patients after Total Knee Replacement**

**Presenter:** Leonid Arieh Kandel, MD

Study results indicate a major improvement in dynamic balance among old patients undergoing TKR due to osteoarthritis and improved quality of life and general function. Eighty-two patients with the mean age of 73 participated in this prospective study.

Narcotic Use and Satisfaction after Total Knee Replacement
Presenter: John A. Karbassi, MD
Total knee replacement has been an effective surgery to reduce pain and increase function and mobility in advanced osteoarthritis sufferers. In this study patients that use narcotics pre-TKR are more likely to continue post-surgery, are more likely to report pain afterwards and more likely to be dissatisfied with the surgery results. Since TKR is a procedure with typically high satisfaction rates, these findings have implications for patient selection, counseling and pharmacologic management of osteoarthritis. Data on 6,364 patients who underwent this surgery from 2000-2005 was analyzed retrospectively.

The Effects on Long-Term Bisphosphonates: a Closer Look at Effects of Treatment on Bone Quality
Presenter: Anthony Ding, BS and Brian Gladnick
For the last decade, postmenopausal women have been advised to take long-term bisphosphonates to maintain bone health and prevent further loss from the onset of osteoporosis. Recent reports indicate an atypical hip fracture associated with use, creating a potential complication for women who are on this protocol. Researchers in this study of 112 postmenopausal women conclude the effects of bisphosphonates may be exaggerated in this population and that further research is warranted to understand the mechanisms and risk factors associated with these findings.

Impact of Metal Ion Levels in Women in Reproductive Years Who Have Undergone Hip Arthroplasty
Presenter: Joshua J. Jacobs, MD
There has been a resurgence of interest and use of metal-on-metal (MOM) bearing surfaces in hip arthroplasty. Concerns still remain regarding the metal ion levels in blood and urine and how these levels adversely affect the fetus or pregnant female patients with metal-on-metal bearing surfaces. A small study of three patients with MOM hip arthroplasty and seven without shows that chromium and cobalt serum levels were higher in women with implants in comparison to the control maternal and offspring levels. Researchers conclude that the affect of ions on maternal and fetal subjects are unknown and that MOM arthroplasty in females of child bearing age should proceed with caution.

OTHER HIGHLIGHT NEWS:

✓ Hormonal Influences and Glenohumeral Laxity in Female Athletes
Presenter: Aimee S. Klapach, MD
In this pilot study to assess the questions of gender, hormonal influence, and both generalized and glenohumeral laxity, the level of hormones showed a positive trend with generalized laxity among 41 collegiate female swimmers. Presence of shoulder laxity was correlated with general laxity.
http://www3.aaos.org/education/anmeet/anmt2010/podium/podium.cfm?Pevent=051

✓ Acute Achilles Tendon Rupture: Comparing Surgical and Nonsurgical Treatments
Presenter: Katarina Nilsson Helander, MD
Researchers compared 97 patients with Achilles tendon ruptures treated with or without surgery using similar protocols. Study results showed no difference in outcomes but did indicate the importance of early mobilization regardless of treatment type.

✓ Knee Forces During Downhill Skiing after Total Knee Arthroplasty
Presenter: Clifford W. Colwell, Jr., MD
The forces generated during recreational skiing vary with activity and level of difficulty: snowplowing and straight skiing generated lower forces than level walking; stopping and skating generated forces comparable to stair climbing. This study provided quantitative results to assist the surgeon in advising patients regarding postoperative exercise. One patient was studied for two years postoperatively.
http://www3.aaos.org/education/anmeet/anmt2010/podium/podium.cfm?Pevent=262

✓ Patient Satisfaction after Total Knee Replacement
David Christopher Ayers, MD
Total knee replacement is a highly successful surgery to reduce pain relief and increase function in patients with advanced arthritis. In this study of 7,715 TKR patients, 95% were satisfied with their outcome. This data assists surgeons to counsel patients prior to TKR and develop strategies to increase satisfaction, particularly among those patients who are at risk for dissatisfaction including those of younger age, female gender and post-traumatic arthritis.

Updates on Hip Fractures

• Long Term Population-Based Results of Total Hip Replacements in Younger Patients
Presenter: Keijo Makela, MD
Researchers studied the results of 4,032 total hip replacements performed for primary osteoarthritis in patients under 55. Findings show that both cementless stems and cementless cups have better resistance to aseptic loosening than cemented implants in long term follow up in younger patients.
• **Resurfacing Hip Replacement: Outcome at 8 Years and Analysis Of 12,093 Primary Procedures**  
  *Stephen Graves, MD*  
  This study of over 12,000 procedures reports the eight-year outcomes of resurfacing hip replacements and identifies a number of factors important in reducing revision rates. The author notes that outcome is very dependent on patient and prosthesis selected.


The AAOS Media Briefing Schedule is highlighted below. Additional information and related abstracts are provided upon request to Robin Waxenberg, 212/489-8006, robin@robwax.com

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<th>Wednesday, March 10(^{th})</th>
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| **8:30 am - 9:00 am**  
  *Pediatric Trauma: Increase in ATV and Motocross Sports* | **8:30 am - 9:00 am**  
  *Evidence-Based Medicine* |  |
| **9:15 am - 9:45 am**  
  *Getting Professional Athletes Back in the Game* |  |  |
| **10:00 am - 10:30 am**  
  *Wounded Warriors and Battlefield Orthopaedics* | **10:15 am - 10:45 am**  
  *Orthopaedic Industry Relationships* |  |
| **10:45 am - 11:15 am**  
  *Beyond Biologics, Gene Therapy and Stem Cells: What the New Decade May Bring* |  |  |
| **1:00 pm - 1:30 pm**  
  *Platelet Rich Plasma Debate: Fact vs. Fiction* |  |  |

**About AAOS**
With more than 36,000 members, the American Academy of Orthopaedic Surgeons, (www.aaos.org) or (www.orthoinfo.org) is the premier not-for-profit organization that provides education programs for orthopaedic surgeons and allied health professionals, champions the interests of patients, and advances the highest quality of musculoskeletal health. Orthopaedic surgeons and the Academy are the authoritative sources of information for patients and the general public on musculoskeletal conditions, treatments and related issues. An advocate for improved care, the Academy is participating in the Bone and Joint Decade (www.usbjd.org) - the global initiative in the years 2002-2011 - to raise awareness of musculoskeletal health, stimulate research and improve people's quality of life. The Academy's 2010 Annual Meeting is being held March 9-13, 2010 at the Morial Convention Center in New Orleans.