

FOR IMMEDIATE RELEASE**CONTACT:**

Patti Davis
Director of Communications
& Member Services
AOSSM
Tel: (847)292-4900
Email:patti@aossm.org

NEWS YOU CAN USE FROM *THE AMERICAN JOURNAL OF SPORTS MEDICINE* (MAY)

Following are highlights from the May 2007 issue of the *American Journal of Sports Medicine*, the monthly peer-reviewed journal of the American Orthopaedic Society for Sports Medicine (Vol. 35, No. 5):

- **Don't Wait, Operate!** Rotator cuff repairs should be performed before surrounding muscles deteriorate for optimal surgical outcome
- **Up in the Air:** Menstrual cycle, hormones may not explain higher rate of ACL tears among female athletes in jump-landing study
- **Less May be More:** After less invasive hip surgery, older athletes return to sporting activity at a higher rate than younger athletes
- **For Love or Money:** Team physicians face special ethical challenges in treating athletes

Poorer Preoperative Muscle Quality Negatively Affects Outcome of Rotator Cuff Repair

Rotator cuff surgery typically leads to decreased shoulder pain and improved function. A new study indicates the quality of muscle surrounding the rotator cuff may be a predictor of surgical outcome in patients who have cuff surgery. Using both assessment scores and strength measurements, researchers found a strongly negative correlation between muscle quality and outcome results. Repair of the rotator cuff did not lead to improvement or reversal of the degeneration of the muscles, and a failed repair resulted in significantly more atrophy. The researchers concluded that rotator cuff repair should be performed before the cuff musculature deteriorates further in order to optimize outcomes.

"Our study suggests there may be a 'point of no return' at which time the muscles undergo irreversible change," says lead author James N. Gladstone, MD, of the Department of Orthopaedic Surgery, Mount Sinai Medical Center, New York, NY. "A clearer understanding of these factors would allow for better preoperative counseling and decision-making as to the most appropriate treatment plan."

(Co-authors' institutions: Mount Sinai Medical Center, NY, NY; The Ohio State University, Columbus, OH; University of Calgary, Alberta, Canada)

Menstrual Cycle, Use of Oral Contraceptives May Not Play a Role in ACL Injury Rates in Female Athletes After All

Anterior cruciate ligament (ACL) injury occurs at a much higher rate in women than in men. New research suggests that menstrual cycle phase and use of oral contraceptives – two frequently-mentioned correlates for ACL tears in female athletes – may not, in fact, explain the higher rate of ACL injury in women versus men. Scientists had female and male athletes perform three high-risk jumping and landing tasks and measured the impact on their knee and hip joints. They collected data during each phase of the women's menstrual cycles and on their use of oral contraceptives. Males served as control subjects.

The jumping and landing activities showed no biomechanical differences that could be related to menstrual cycle. "The results show that hormone cycling in women does not appear to affect either the knee joint or hip joint during jumping and landing," writes lead author Ajit M. W. Chaudhari, PhD, of the

Ohio State Sports Medicine Center, Columbus, OH. “Moreover, the use of an oral contraceptive does not appear to affect joint loading.” Factors such as fatigue, differences in neuromuscular coordination, or ligament properties may better explain why females suffer more ACL injuries than males.

(Co-authors’ institutions: Cincinnati Sportsmedicine Research and Education Foundation, OH; Stanford University, Palo Alto, CA; Veteran’s Administration Palo Alto Health Care System, Palo Alto, CA; Cincinnati Children’s Hospital, OH; University of Cincinnati College of Medicine, OH.)

Older Patients More Active in Sports Than Younger Patients After Less-Invasive Hip Surgery

Patients who engage in sports before hip replacement wonder if they will be able to play sports (or even the same sports) at the same level of activity after their surgery. Hip resurfacing arthroplasty (HRA), a less invasive procedure than total hip replacement, has recently gained in popularity especially among younger, active patients. The technique involves removing only the cartilage surface of the hip and then reshaping the ball and socket, thus preserving the surrounding bony structures of the hip. Sparing the majority of bone is most attractive to young, active patients who are likely to outlive their first replacement, eventually needing a new one.

Researchers at the Joint Center, Schulthess Clinic, Zurich, Switzerland, surveyed 112 patients to determine their sporting activities at an average of two years after undergoing HRA. Twenty-seven women and 85 men (mean age 53 years) completed questionnaires on the types and extent of sports they played before and after surgery. After HRA, the oldest patients (mean age 60 years) participated in more different sports with a higher weekly frequency and longer session length than younger patients (mean age 46 years). These older patients reported that they engaged in the same sports after surgery as before surgery, had less pain, and had a better overall feeling during and after sports. Most patients surveyed returned to sports within six months after HRA, and men and women returned to activity at the same rate.

“The present study reports for the first time on the detailed sports activity and activity extent after hip resurfacing arthroplasty,” the authors write. “Patients treated with HRA have a high activity level and are engaged in many different sport disciplines 2 years after surgery.” Further study is needed to determine if the resurfaced hip will withstand the wear and tear of this high activity level, the authors say.

Team Physicians and Ethics: Challenges in the Treatment of Athletes

The customary ethical norms of the doctor-patient relationship, such as patient autonomy and confidentiality, are often challenged when the doctor is a team physician and the patient is an athlete. The doctor-patient dyad becomes the doctor-patient-team triad, where a team’s priorities can conflict (or sometimes replace) those of the patient-athlete. There is no widely accepted code of ethics for sports medicine that adequately addresses these issues.

An article by Warren R. Dunn, MD, MPH, of the Vanderbilt Sports Medicine Center, Nashville, TN, and coauthors, reviews such issues as third-party influences, informed consent, competition in vying for a team medical contract, patient confidentiality, and drugs in sports. Team physicians face implicit or explicit pressure from multiple sources, such as management, coaches, and agents, to improve an athlete’s performance in the short term rather than preserve the long-term health of the patient-athlete.

“Many ethical issues are unique to sports medicine because of the unusual clinical environment of caring for athletes within the context of a team whose primary goal is to win,” the authors write. “The tension that can arise when trying to balance medical means with nonmedical ends can be challenging. The sports medicine physician must carefully examine continually changing ethical standards and direct the care of the athlete accordingly.”

(Co-authors' institutions: Center for Health Services Research and The Center for Biomedical Ethics and Society, both at Vanderbilt University Medical Center, Nashville, TN; KSF Orthopaedic Center, Houston, TX.)

#

The American Journal of Sports Medicine is the monthly peer-reviewed scientific journal of the American Orthopaedic Society for Sports Medicine (AOSSM). The Society works closely with many sports medicine specialists and clinicians to improve the identification, treatment, rehabilitation, and prevention of sports injuries. Please visit **www.sportsmed.org**.

To contact the authors of the above studies published in the May issue of *AJSM*, call AOSSM Director of Communications and Member Services Patti Davis at 847/292-4900 or email **patti@aossm.org**.