

### EMBARGOED FOR RELEASE UNTIL SATURDAY, MARCH 15, 2014

# More Osteoarthritis Noted Later in Life in Kids who Have ACL Reconstruction

**NEW ORLEANS, LA** – Researchers presented results today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day in New Orleans that adolescents who have an Anterior Cruciate Ligament (ACL) reconstruction are more likely to demonstrate osteoarthritic changes later in life.

"Long-term follow-ups after the surgical treatment of ACL injuries in kids are rare and this is one of the few studies that has been able to track individuals," said Olle Mansson, MD, lead author of the study from NU-Hospital Group in Uddevalla, Sweden.

The study assessed 32 patients, aged 12-16 years old, 10-20 years after their initial ACL reconstruction that used bone-patellar bone-tendon or hamstring tendon autograft. Twenty-nine patients underwent clinical, radiographical and health-related quality of life assessments after 10-20 years (mean 175 months). The results revealed significant osteoarthritic changes on the reconstructed knee (65%) compared to the non-involved knee (14%). Quality of life and other health related scores were the same or comparable to those seen in healthy controls.

"Early reconstruction of ACLs is often the trend for young more skeletally mature athletes to restore knee stability and prevent progressive meniscal and/or articular cartilage damage. Often these procedures do allow individuals to return to the playing field and continue an active lifestyle. However, it is still important to evaluate long-term effects such as osteoarthritis when considering surgeries for these pediatric patients," said Mansson.

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#### Young Athletes with Knee Pain May Turn to Meniscus Transplant New Data Shows Positive Results for Meniscal Allograft Transplantation (MAT) Surgery

**NEW ORLEANS, LA** – Patients undergoing meniscal allograft transplantation (MAT) surgery require an additional operation approximately 32% of the time, but overall see a 95% success rate after an average five-year follow-up, according to new research released today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day.

"Our research shows a positive mid to long-term outcome for patients who require MAT surgery," commented lead author Dr. Frank McCormick from Holy Cross Orthopedic Institute in Fort Lauderdale Florida, and Rush University Medical Center in Chicago. "While 64 patients out of the 172 we followed needed additional surgery, the overall survival of transplanted grafts suggests we can confidently recommend this procedure moving forward."

The study took place from January 2003 to April 2011, with patients receiving the same surgical technique as well as the same 4-6 week rehab. Follow-up surgeries included removal of tissue, equipment, and in some cases a revision of the original surgery.

"A healthy meniscus is critical to a fully functioning knee, and so also key to leading an active lifestyle," noted McCormick. "Our latest data shows that patients with damaged knees can certainly recover and return to form with the right kinds of treatment."

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# Socioeconomic Factors May Contribute To Delay In Pediatric ACL Reconstructions *Private vs. public insurance plans also make a difference say researchers*

**NEW ORLEANS, LA** – Research presented today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day in New Orleans highlights evidence that insurance type, household income and age at injury are significant, independent predictors of the rate which Anterior Cruciate Ligament (ACL) surgeries occurred in kids. Researchers also noted that a delay in pediatric ACL surgery of more than five months correlated with increased severity of other knee injuries in the future.

"In our study, ACL surgery occurred more rapidly among pediatric and adolescent subjects who were more affluent, covered by commercial insurance and who were older when first seen. It was also interesting to note that ethnicity, gender and obesity did not show a significant correlation to time of treatment," said Justin T. Newman, MD, lead author of the study and Orthopaedic Surgery Chief Resident from the University of Colorado School of Medicine. "According to most recent research, treating pediatric ACL injuries in a more timely manner leads to better outcomes and a quicker return to sports," noted Newman.

Researchers identified 272 individuals who underwent primary ACL reconstruction at a single, large volume tertiary-level pediatric hospital between 2005 and 2012. Demographic, clinical and socioeconomic variables were retrospectively collected from all patients less than 19 years old at time of injury. Socioeconomic variables included household income and insurance type. Household income was based on median income associated with each of the subject's home zip codes. Insurance type was classified as commercial, government issued or uninsured.

Patients in the study who had a commercial insurance plan underwent ACL surgery at a rate that was 63% faster than patients with Medicaid, government assisted insurance plans or no insurance. In addition, differences in the time to ACL surgery were significantly different, with commercial plan individuals obtaining surgery in 1.5 months compared to 3 months for non-commercial. Patients whose household income was greater than the 75<sup>th</sup> percentile underwent surgery at an average of 1.2 months, compared to 2.2 months.

"Insurance type may delay the time from injury to surgery and consequently this delay in surgery could result in an increased chance of knee injuries requiring additional treatment. However, it is also important to note that often times the delay to have surgery is driven by the patient and family members rather than orthopaedic evidence and research," said Newman.

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#### ACL Tears are Not the End for College Football Players

New Data Shows Positive Trends for Players Returning

**NEW ORLEANS, LA** – High-level college football players frequently return to the field after an ACL reconstruction, according to research presented today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day. The study added to earlier research by exploring specific factors that affected return to play, including player standing on rosters and year in school.

"Our data shows that about 82% of Division 1 NCAA football players return after ACL surgery, with that percentage reaching up to 94% when we focus on players who were starters before being injured," commented lead author Dr. Jimmy Hoshang Daruwalla from the Emory University Department of Orthopaedics in Atlanta. "Athletes who rarely saw playing time returned about 73% of the time, while those who saw at least some playing time returned at a rate of about 88%."

The study used data from 13 institutions in major Division 1 FBS conferences, including the Southeastern Conference (SEC), Atlantic Coast Conference (ACC) and Pacific 12 (Pac-12). A total of 184 athletes participated, with 151 of the general group returning to play. Sophomores and juniors returned approximately 90% of the time, with scholarship players returning approximately 87.6% of the time.

"Our research shows that returning from a major knee injury and surgery is definitely possible. Furthermore, we've found that the more motivated and skilled players are more likely to achieve this goal," noted Daruwalla. "Sports medicine specialists will be able to use this data to help counsel players and tailor treatments for these collegiate athletes."

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# Shoulder Revision Repair Surgery Not As Successful Two Years Later, Say Researchers

**NEW ORLEANS, LA** – Long-term outcomes of revision arthroscopic rotator cuff repair surgery is not as successful as in a first-time surgery, according to researchers from the Orthopaedic Research Institute in Sydney, Australia, who are presenting their work today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day.

"According to our results, patients with revision arthroscopic rotator cuff surgery had gained short term (six months post operatively) functional and clinical improvements. However, these gains pretty much disappeared by two years following surgery," said lead researcher, Aminudin Mohamed Shamsudin, MD, M.Medicine (Ortho) from the Orthopaedic Research Institute in Sydney, Australia.

Shamsudin and his team analyzed and followed-up with 360 arthroscopic rotator cuff surgery patients where they compared the functional and clinical outcomes of 310 primary cases with that of 50 revision cases. The revision group patients were older with a mean age of 63 while the primary group patients had a mean age of 60. The primary group also had a larger rotator cuff tear on average. Two years after surgery the primary group reported less pain at rest, during sleep and with overhead activity compared to the revision group. At two years, the primary group also had better forward flexion, abduction, internal rotation and strength compared to the revision group. The re-tear rate for the primary rotator cuff repair was 16 percent at six months and 21 percent at two years. The re-tear rate for the revision rotator cuff repair was 28 percent at six months and 40 percent at two years. The increase in re-tear rate in the revision group at two years was associated with increased pain, impaired overhead function and less overall satisfaction with shoulder function.

"Further studies are needed to identify ways to improve long-term outcomes following revision arthroscopic rotator cuff surgery. However, our results do highlight the long-term success of primary rotator cuff surgery and may help patients understand the realistic expectation of the outcomes of revision arthroscopic rotator cuff surgeries," said Shamsudin.

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#### Tommy John Surgery A Good Solution for MLB Pitchers

**NEW ORLEANS, LA** – New data suggests ulnar collateral (UCL) reconstruction, better known as Tommy John Surgery, allows major league pitchers to return to the mound at high rates, and with a positive impact on some performance parameters. The research, presented at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day, examined 179 major league pitchers from 1986 to 2012.

"Our research showed 83% of MLB pitchers undergoing this elbow surgery returned to pitching, with most returning after an average of 20.5 months," noted author Dr. Anil K. Gupta from Rush University Medical Center in Chicago. "Not only that, but more than 97% of the pitchers studied, at least returned to the minor leagues – impressive results for a major surgical reconstruction that requires an extensive recovery period."

The study also demonstrated some positive performance indicators, including a drop in average earned run average (ERA) from 5.7 pre-surgery to 4.2 post-, as well as a decline in pitching losses from 4.4 per year to 3.1.

"We do caution looking too much into the improved stats for pitchers," commented Gupta. "We did still find pitchers had fewer innings pitched and total wins after surgery, and we do not want to suggest Tommy John surgery is an option for improved performance. More needs to be done to learn about this surgery at all levels of baseball, including the high school and collegiate level, as well as how it changes a pitcher's role and style."

The team's research also showed MLB pitchers returning averaged a 3.9 year career length following surgery.

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