

Females under 25 at greater risk for ACL re-tear, say researchers

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Graft size, sex and age have a significant effect on the odds of an ACL re-tear post reconstruction with a hamstring graft, say researchers presenting their work today at the American Orthopaedic Society of Sports Medicine's Annual Meeting in Colorado Springs, CO.

"Our research noted that [female patients](#) under the [age](#) of 25 with a graft size of less than 8 mm have an increased chance of re-tearing their ACL following reconstruction. Another contributing issue to this increased re-tear rate might also be due to pre-disposing factors, including estrogen levels, anatomical differences, and decreased knee strength. More research is needed to further determine the exact causes," said lead author, Duong Nguyen, MD.

Dr. Nguyen and his team, studied a cohort of 503 athletes undergoing primary, autograft hamstring ACL [reconstruction](#). The surgeries were all performed at a single center by a single surgeon between September -December 2012 and were followed for a duration of two years. The average age of the athletes was 27 with 235 females and 268 males taking part in the study. The same surgical technique was used during all of the procedures. Patients were allowed to return to sports participation between six and 12 months post-surgery only if they were pain-free, had equal quadriceps/hamstring strength and if they had graduated from the rehabilitation program.

"Given the results of our study, we feel that surgeons should counsel their younger, female [patients](#) accordingly and consider modifying their surgical techniques to utilize larger size grafts and/or rehabilitation strategies to lessen the chance of a re-tear," said Nguyen.

Provided by American Orthopaedic Society for Sports Medicine

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