

Results for female ACL graft repair methods differ among younger athletes, say researchers

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Female athletes are two to eight more times likely to injure their ACL than males, however utilizing one graft repair treatment method in females may be more beneficial than another, according to researchers presenting their work today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Annual Meeting in San Diego.

Young females have been shown in previous literature to have a higher risk for [graft](#) failure with very little known about why this occurs. "Our study compared clinical outcomes in young females who had ACL reconstruction using bone-patellar tendon-bone (BTB) and quadrupled hamstring (HS) autografts. Higher rates of re-tears in our [patients](#) were seen in our youngest patients using HS autografts," said senior author, Kevin B. Freedman, MD from the Rothman Institute in Philadelphia, PA.

Freedman and his colleagues reviewed 256 female patients between the ages of 15-25 who underwent primary ACL reconstruction using either the BTB or HS autograft between January 2012 and May 2015. Patients with a prior history of ACL injury to either knee were excluded. The results illustrated that graft re-tear occurred in 6.9% of BTB patients and 13.6% of HS patients. Contralateral ACL tear occurred in 7.4% of BTB patients and 6.2% of HS patients. When researchers broke down the graft tears by age, those in the 15-20-year-old group had a significantly lower rate of re-tear with 6.4% in the BTB compared to 17.5% in the HS

group. This same difference was not observed in older [females](#) in the 20-25 age group

"More research needs to be performed to better understand female ACL injury and what the best methods for repair are in our youngest patients who are at highest risk of re-injury. We hope that our research will add to the literature and treatment prospects for this complex problem," said Freedman.

Provided by American Orthopaedic Society for Sports Medicine

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