

TITLE: Relationship between sport participation after revision anterior cruciate ligament reconstruction and 2-year patient-reported outcome measures

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STUDENT SUBMISSION: Yes

TOPIC/TARGET AUDIENCE: Medical Practitioners; Injury Epidemiologists; Orthopedic Surgeons; Athletic Trainers; School Administrators

ABSTRACT: Background: Anterior cruciate ligament (ACL) revision patients continually report lower functional outcome scores post-operatively than primary ACL patients. It is unclear how these outcomes are associated with physical activity following physician clearance. Purpose: To determine whether sports participation following surgery was associated with two-year patient-reported outcomes measures (PROMs) related to sports function, activity level, and knee symptom scores. Methods: At baseline, 1205 patients undergoing revision ACL reconstruction enrolled in a multi-site study. Baseline data included: demographics, surgical characteristics, previous knee treatments and PROMs (baseline and two-years post-operative). Multivariate regression models evaluated the association of each two-year PROM and sport participation (multiple sports, single sport, and no sports), controlling for known covariates. Results: Patients not participating in sports after revision surgery had lower median PROMs at baseline and two-years compared to sport participation groups. Patients with no sport participation were 2.0 to 5.7 times more likely than multiple-sport participants and 1.8 to 3.8 times more likely than single sport participants to report significantly lower PROMs. Conclusion: Sport participation at two-years was significantly associated with higher scores across PROMs. Regardless of baseline activity, surgeons should continue to expect that patients returning to physical activity following revision will report better functional outcomes.

OBJECTIVE(S): Analyze the relationship between sports participation following ACL revision surgery and two-year patient report outcome measures. Describe the risk factors for lower reported patient-reported outcomes with no sport participation compared to single and multiple sport participation. Describe trends in multiple patient-reported outcome measures by self-reported physical activity status in ACL revision population
