

## Return to Sport Outcomes 3-7 Years After Revision ACL Reconstruction Surgery

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### Summary:

Return to sport rates after revision ACLR were similar to those following the primary surgery but are still lower than the reported rates of those who have not come to revision.

### Abstract:

#### BACKGROUND

There is limited and inconsistent data regarding return to sport outcomes following revision anterior cruciate ligament (ACL) reconstruction

#### HYPOTHESIS

Return to sport rates will be lower following revision ACL reconstruction compared to primary ACL reconstruction

#### STUDY DESIGN

Case series; Level 4 evidence

#### METHODS

The study cohort consisted of 136 eligible patients who had undergone their first revision ACL reconstruction from March 2006 to March 2010. Of these, 109 patients (80%) completed a sports activity survey at a mean 4.9 year follow up (range: 3-7yrs). Follow-up also included IKDC Subjective, Marx Activity, and KOOS-QOL scores. Additional information was obtained from the clinical record, including operative details and routine 12-month assessment.

#### RESULTS

Following revision ACL reconstruction, 46% patients returned to the pre-injury level of sport compared with 50% after the primary reconstruction. Those who returned to their same level of sport scored higher on the Marx Activity ( $p < 0.0001$ ), KOOS-QOL ( $p < 0.0001$ ) and IKDC scores ( $p = 0.009$ ). Younger patients were more likely to have returned to their same level of sport (58% vs 38%,  $p < 0.05$ ), whilst the rate of return was the same in males and females. Patients with less than 50% thickness articular cartilage lesions were also more likely to have returned to their pre-injury level (52% vs 31%,  $p < 0.05$ ) and had significantly better Marx Activity ( $p = 0.001$ ), KOOS-QOL ( $p = 0.003$ ) and IKDC scores ( $p = 0.002$ ) at follow-up. The status of the menisci at the time of revision surgery was not associated with rates of return to sport, but patients with an intact medial meniscus had significantly higher Marx Activity ( $p = 0.003$ ) and KOOS-QOL ( $p = 0.03$ ) scores at follow-up. The patient group that had returned to the same pre-injury sport also had better hop symmetry ( $p = 0.03$ ) scores at a 12-month clinical assessment.

#### CONCLUSION

Return to sport rates after revision ACLR were similar to those following the primary surgery but are still lower than the reported rates of those who have not come to revision. Greater chondral and meniscal pathology at revision surgery was associated with reduced post revision function.