

Return to Sports ACL Rehabilitation in Men vs Women: What Works and What Doesn't?

A systematic review

Anterior cruciate ligament (ACL) ruptures are usually traumatic injuries that require surgical reconstruction to heal properly. Recovery time from an ACL reconstruction (ACLR) varies based on multiple factors such as graft type, prior level of activity, and the individual. Return to activity or sport varies, and can range from 6 months, for low activity, to 12 or more months, for higher level athletes. Post-operative rehabilitation is crucial for regaining strength, function, and range of motion in order to return the patient to their desired activities at the prior level of function, as well as prevent future ACL injuries. Studies have found that female athletes are up to nine times more likely to retear their ACL after reconstruction than male athletes, even with the same postoperative protocol⁴³. Many variables may contribute to this discrepancy, with the most significant factors being differences in tissue extensibility and general hypermobility, hamstring-quadriceps (H:Q) strength ratio, neuromuscular control, joint loading mechanics, and valgus angles in the knee due to hip width^{18 40}. Although the discrepancy between male and female ACL retear rates is well documented, rehabilitation protocols still remain the same for both sexes postoperatively. This systematic review aims to filter out what has and has not been found to be effective during recovery, while determining a better process for ACLR rehabilitation, especially among females. Although ACL reconstruction surgeries are consistent between men and women, the approach to their recoveries should not be.

Key Words: ACL rehabilitation; anterior cruciate ligament; ACL physical therapy; ACL male vs female; ACL retear; reinjury; re-rupture.