

Six Weeks of Hip-focused Exercises Improve Knee Function Following Anterior Cruciate  
Ligament Reconstruction

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Abstract

Background: Weakness in hip muscles has been identified as a contributor to faulty lower extremity mechanics.

Aim: The purpose of this study was to examine the effects of hip-focused exercise and correlation between knee function and isokinetic peak torques of lower muscle in anterior cruciate ligament reconstruction (ACLR) knees.

Method: Thirteen recreationally active male were included in the study. The hip-focused exercises were continually performed three times a week, for six weeks period. Isokinetic muscle strength were measured bilaterally on the hip abductor, hip adductors, knee extensors and knee flexors at the velocity of 60 degree/second. The International Knee Documentation Committee (IKDC) was used to evaluate knee function.

Results: Isokinetic peak torques were significantly increase likewise the IKDC score. However, no correlation existed between lower muscle strength and IKDC score after the exercise.

Conclusion: Hip-focused exercise improve not only lower muscle strength but also subjective IKDC score in individuals following ACLR

Keywords: Anterior cruciate ligament reconstruction, Hip muscle exercise, Isokinetic test