



## ISOKINETIC MUSCLE STRENGTH ASSOCIATED WITH DIFFERENT FIXATION TECHNIQUES IN ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION

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The purpose of this study was to investigate early isokinetic muscle strength and knee function on bone-patellar tendon-bone (BPTB) ACL reconstruction with double femoral pin fixation or interference screw technique.

A prospective study was conducted from 2008 to 2009, with 48 athletes who received femoral BPTB fixation with interference screw (n = 26) or double pin (n = 22). Clinical (IKDC objective score and hop test) and isokinetic muscle strength (peak torque (PT), PT/body weight and flexion/extension rate (F/E) in 60 and 240/s) were analyzed at 6 months of follow-up.

Analysis at baseline showed no differences between groups before surgery. During follow-up, however, there were significant differences between the two groups in some of the isokinetic muscle strength: PT/BW60/s (double pin = 200% ± 13% vs. Interference screw = 253% ± 16%\*, \*p = 0.01); f/e 60/s (double pin = 89% ± 29%\* vs. Interference screw = 74% ± 12%\*, \*p = 0.04) early return to sports ability signaled by isokinetic muscle strength is of clinical relevance as it is one of the main goals for athletes' rehabilitation.