

# Isokinetic, functional and proprioceptive assessment of soccer players two years after surgical reconstruction of the anterior cruciate ligament of the knee

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Injuries to the anterior cruciate ligament (ACL) of the knee are common in sport and are treated routinely in the world of sports medicine. In order to resume competitive sport in safety, it is important to know the actual level of performance achieved by the operated leg some time after the ligament repair. OBJECTIVES: The objective of this work was to evaluate the recovery of the operated leg in Tunisian sportsmen two years after surgery by using isokinetic testing (60 degrees  $s^{-1}$ ), the one-leg hop distance test (i.e. a functional activity that one often finds in sport) and proprioceptive assessment. A secondary objective was to detect any possible correlations between the various outcomes. MATERIALS AND METHOD: The ACL group was composed of 26 top-level Tunisian footballers having undergone ACL ligament repair. Two years after surgery, the following assessments were performed: an isokinetic test with an angular velocity of 60 degrees  $s^{-1}$ , a proprioceptive assessment in both active and passive modes and the functional one-leg hop distance test. RESULTS: Our investigations confirmed a muscle deficit of 16% in the hamstring muscles of the injured leg. In both active and passive modes, normal proprioception is observed at a flexion of 60 degrees and in total extension but not in a mid-way position. The performance level of the operated leg (in terms of distance) had an average symmetry value of 93.40+/-2.7%. CONCLUSION: Playing football appears to influence the isokinetic strength profile in sportsmen after ACL repair. The repair procedure leads to bilateral proprioceptive disruption at 15 degrees of knee flexion, on average.

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