

The limb symmetry index may overestimate functional recovery after ACLR

We evaluated functional performance changes in the ACLR and contralateral limbs 1 to 5 years post-ACLR to determine the influence on the limb symmetry index (LSI)

Background

The LSI compares the performance of the ACLR limb to the contralateral limb

LSI >90% is a widely advocated benchmark for functional recovery and clearance for return to sport after ACLR

59 participants, aged (mean) 29 years at 1 and 5 years after ACLR underwent:

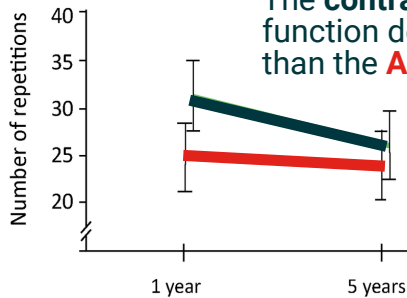


Single hop, triple crossover hop, side hop and one-leg rise tests on both limbs



In the ACLR group, linear regression (accounting for between-limb correlation) evaluated between-limb differences in change

RESULTS



The **contralateral limb** function decreased more than the **ACLR limb**



The LSI improved BUT it was driven by worsening contralateral limb function

CLINICAL IMPLICATIONS

Interpret the LSI with caution! It may overestimate improvements in function, as it assumes the contralateral limb is the “gold-standard” and immune to decline



Clinicians should consider using pre-operative or early post-operative contralateral limb function, or age-matched uninjured data as the reference standard

Read paper here



Patterson BE et al. Limb symmetry index on a functional test battery improves between 1 and 5 years after ACLR, primarily due to worsening contralateral limb function. *Physical Therapy in Sport*. 2020.