

Hip Strength Imbalances and Trunk-Pelvis Coordination During Soccer Kicking

METHODS



18 Male Soccer Players

Inside kick (Maximum effort)



Multi-Planar Isokinetic Strength

IR/ER & Ab/Ad Ratios
(180°/s & 300°/s)



1D-SPM Linear Regression

Continuous kinematic waveforms

KEY FINDINGS

STANCE LEG

Relative External Rotator Weakness

- ↳ **Premature Pelvic Rotation**
- ↳ **Compensatory High-Velocity Internal Rotation**

KICKING LEG

Relative Adductor Weakness (300°/s)

- ↳ **Contralateral Trunk Lateral Flexion**
- ↳ **Mechanical forcing of hip abduction (AOS)**

CLINICAL IMPLICATION



Altered Intersegmental Coordination

Potential increase in active deceleration demand

Theoretical alteration of shearing forces