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Postural Control: A Sample Entropy Approach to One-Legged Stance TAYLOR MCMILLAN, Univ of Northern Colorado, SCHOOL OF SPORT AND EXERCISE SCIENCE, UNC COLLABORATION — We became interested in knowing whether any notable differences could be discerned, during one-legged stance, between an individual's dominant and non-dominant foot via the sample entropy algorithm. Sample Entropy is a method by which one can gauge the complexity of system evolving with time. There were 5 participants for this study, all of whom had a dominant right foot. We used this algorithm to measure the complexity of the force and jerk generated by an individual during unipedal stance. Preliminary results suggest that sample entropy can resolve a difference in the dynamics of each leg while attempting to maintain balance.

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