**Prevalence and range of pre-season clinically significant lower limb motor-performance asymmetries in an adult netball club**

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Side-to-side comparison of lower limb (LL) motor-performance is frequently made in injury prevention and rehabilitation. Specifically, researchers report side-to-side comparison of LL motor-performance is useful in first-time injury prediction and rehabilitation outcome contexts (Hewitt, Cronin, & Hume, 2012, *Strength and Conditioning Journal*, 34, 82-86). Unilateral LL injuries are common in netball, but reports on pre-season single-leg motor-performance are lacking. Characterising pre-season LL motor-performance will provide data regarding the frequency of potentially dangerous side-to-side differences (asymmetry). Therefore, the purpose of this study was to identify the prevalence and range of pre-season side-to-side LL motor-performance asymmetry in an adult netball club using established single-leg balance and hop tests. With university ethics approval, 23 adult female netball players participated (mean ± SD: age 28.7 ± 6.2 years; height 171.6 ± 7.0 cm; mass 68.2 ± 9.8 kg). All registered for pre-season training and reported being uninjured and available for selection. Test order considered skill demands and cumulative muscle fatigue: leg length (cm), barefoot eyes-closed single-leg balance (ECB; s), shod triple hop for distance (THD; cm), shod single hop for distance (SHD; cm) and shod vertical hop (VH; cm). All tests possess previously reported reliability. Leg order was right then left. Practice trials were followed by three measured trials. Normalization (% leg-length (%LL)) was performed for all hop test trials: (distance hopped ÷ leg-length) × 100. The mean of measured trials was used for analyses. A limb symmetry index (LSI; %) was calculated: (right ÷ left) × 100. Authors consistently report a side-to-side difference ≤10% is normal. An LSI <90% or >110% (i.e. >10% side-to-side difference) was, therefore, considered abnormal and clinically significant. Counts were made of players with side-to-side differences >10% and proportions (prevalence (%)) computed: (number with side-to-side differences >10% ÷ number in sample) × 100. The prevalence of side-to-side differences >10% was: ECB 91.3% (LSI range17.5-193.3%); THD 6.0% (LSI range 84.8-112.1%); SHD 6.0% (LSI range 83.3-116.4%); VH 52.2% (LSI range 72.2-160.3%). Large proportions of players had side-to-side differences >10% for the ECB and VH tests. The ECB and VH LSI ranges demonstrate very large asymmetries existed in some players. Pre-season correction of abnormal asymmetry in netball players’ ECB and VH motor performance should be considered. Correction of such asymmetries may contribute to prevention of in-season injuries. Further, the ECB and VH tests may be more useful for identifying pre-season clinically significant LL motor performance asymmetry than the THD and SHD tests.

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