

## The Effects of Kicking Leg Preference on the Bilateral Balance Ability Asymmetries in Collegian Football Players

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**Abstract :** The primary aim of the present study was to identify the bilateral balance asymmetries when comparing the dominant (DL) vs. the non-dominant leg (NDL) in the collegian soccer players. The secondary aim was to compare the inter-limb asymmetry index (ASI) when differentiating by kicking preference (right-dominant vs. left-dominant). 34 right-dominant leg (RightDL) (age:21.12±1.85, height:174.50±5.18, weight:69.42±6.86) and 23 left-dominant leg (LeftDL), (age:21.70±2.03, height:176.2±6.27, weight:68.73±5.96) collegian football players were tested for bilateral static and dynamic balance. Balance ability was assessed by measuring centre of pressure deviation on a single leg. Single leg static and dynamic balance scores and inter-limb asymmetry index (ASI) were determined. Student t tests were used for the comparison of dominant and nondominant leg balance scores and RightDL and LeftDL football players' inter-limb asymmetry index of the balance scores. The results showed that there were significant differences in the dynamic balance scores in favour of the nondominant leg, (DL:738±211 vs. NDL:606±226,  $p < 0.01$ ). Also, it has been seen that LeftDL players have significantly higher inter-limb asymmetry index when compared with rightDL players for both static (rightDL:-7.07±94.91 vs. leftDL:-183.19±354.05,  $p < 0.01$ ) and dynamic (rightDL: 1.73±49.65 vs. leftDL:27.08±23.34,  $p < 0.05$ ) balance scores. In conclusion, bilateral dynamic balance asymmetries may be affected using single leg predominantly in the mobilization workouts. Because of having higher inter-limb asymmetry index, left-dominant leg players may be screened and trained to minimize balance asymmetry.

**Keywords :** bilateral balance, asymmetries, dominant leg, leg preference

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