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Supporting the Reduction of the Directions Number of the Star Excursion Balance Test as a Dynamic Balance Test

Poster Presentation

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Abstract

Introduction: The Star Excursion Balance Test (SEBT) is one of the most widely used dynamic balance tests. The protocol of this test is very time-consuming. According to the number of 6 training sessions and three main sessions for each leg and taking into account the rest times between rounds and movements, it takes about 45 minutes. This study was aimed to investigate the reduction of SEBT directions to the experimental directions for wasting time.

Methods: This study was applied type and in terms of descriptive-correlation method. Twenty-four undergraduate students ($23.25-\pm1.25$ years) were performed the eight-way directions nine times, with six repetitions of that practice and the last three trials as a test. Then the correlation of the total score (for the dominant and non-dominant leg) with the balance score of every single direction, all pairs of directions, the mean of the three directions, and the mean of the four directions were calculated.

Results: The results showed that there was a significant correlation between the total score and the majority of states- (P-=-0.0005), while the correlation between the total score with single direction and the mean pair of directions was not significant in the dominant and non-dominant legs; also, there was a significant difference in the anterior, posterior medial, and posterior-lateral side were observed (P-=-0.0005).

Conclusion: Therefore, the results of this study supported the reduction of the direction to the three directions of anterior, posterior medial, and posterior lateral. Therefore, researchers can suggest using three directions to save time in the test.

Keywords

The Star Excursion Balance Test; Balance Directions; static balance; dynamic balance

Reference:

1.Tahmasebi S, Ezati R. (2017). [Designing and making a star balance system and determine the validity and reliability]. Journal of Research in sport Rehabilitation. 5(9):85-94. (Persian)

2.Rahnama N, Foroghifar R, Amini H. (2016). [The effect of balance exercises in the morning and afternoon on the static and dynamic balance of the elderly]. Journal of Sport Management and Motor Behavior, 11(21), 15-24. (Persian)

3.Almeida GPL, Monteiro IO, Marizeiro DF, Maia LB, de Paula Lima PO. (2017).Y balance test has no correlation with the stability index of the Biodex balance system. Musculoskelet Sci Pract. 27:1-6.

4.Linek P, Sikora D, Wolny T, Saulicz E. (2017). Reliability and number of trials of Y Balance Test in adolescent athletes. Musculoskelet Sci Pract.31:72–75.