



## Immediate Effect of Core Stability Exercises on lower limb function of children Footballers

### Oral Presentation

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### Abstract

**Introduction:** Football is one of the most popular sports that has many injuries. The weakness of these muscles can lead to poor performance and thus increase injuries. On the other hand, this area as a bridge between the lower and upper limbs with its proper function can improve performance and performance. Given the importance of core stability exercise and also the high prevalence of lower limb injuries as a result of reduced stability in the central region, the aim of the present study was to investigate the immediate effect of core stability exercise on lower limb function in children Footballers.

**Methods:** The statistical population of the present study included 30 children's athletes who purposefully entered the study and were divided into two groups of 15 control and experimental group. The experimental group performed core stability exercises in one session along with their exercises and the control group only previous exercises. The performance of individuals was assessed using the Y balance test, vertical jump (sargent), three-legged distance, one-leg jump time at a distance of six meters and balance system error scoring system test. Dependent t-test was used to evaluate the difference in performance between athletes in the two groups.

**Results:** The results of the present study showed that central stability exercises had a significant effect on improving lower limb function in athletes ( $P \leq 0.05$ ).

**Conclusion:** The results of the present study showed that core stability training had an immediate effect on the performance of children footballers. Therefore, it is useful for coaches and athletes to perform central stability training in addition to their training to improve their performance.

### Keywords

core stability; performance; Footballer

### Reference:

1. Count, F. B. (2006). 2.5 million people active in football. FIFA Communications Division, Information Services, 31, 2007 .
2. Safari S, N. N., Ansari N, Sarafzadeh J, MansoorSohani S. (2012). Comparison of core stability between male soccer players with and without hip adductors strain(persian) .
3. Borghuis, A. J., Lemmink, K. A., & Hof, A. L. (2011). Core muscle response times and postural reactions in soccer players and nonplayers. *Medicine & Science in Sports & Exercise*, 43(1), 108114 .
4. Read, P. J., Oliver, J. L., De Ste Croix, M., Myer, G. D., & Lloyd, R. S. (2018). A prospective investigation to evaluate risk factors for lower extremity injury risk in male youth soccer players. *Scandinavian Journal of Medicine & Science in Sports*, 28(3), 1244-1251 .