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## A COMPREHENSIVE EXERCISE PROGRAM IMPROVES FOOT ALIGNMENT IN CHILDREN WITH FLEXIBLE FLAT FOOT

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*Received 28.02.2024, Accepted for printing 04.08.2024***ABSTRACT**

*A flat foot is one of the most common skeletal disorders that affect the function of the foot.*

*The aim of this study was to compare the effect of two types of corrective exercise programs with a comprehensive and localized approach in correcting flat foot deformities in adolescents.*

*The statistical population consisted of adolescent male students in Mashhad. Using cluster sampling, 75 students aged 11 to 12 years, who had simultaneously flat feet, crossed knees, and internal rotation of the knee was purposefully selected. They were randomly divided into three experimental groups: local exercises (n=25), comprehensive (n=25), and control (n=25). The severity of flat feet was measured by the navicular bone loss test (pre-test). The experimental groups performed local and comprehensive correction programs for 6 weeks.*

*The results showed that local corrective exercises and comprehensive corrective exercises have a significant effect on correcting flat foot deformities. There was also a significant difference between the effect of local and comprehensive exercises in correcting flat foot deformities and the effect of comprehensive exercises was greater.*

*It is concluded that for the treatment of plantar fasciitis, both local corrective exercises and comprehensive corrective exercises can be used as effective training methods and comprehensive corrective exercises have an advantage over local corrective exercises.*

**KEYWORDS:** *flat-foot, corrective exercises, comprehensive corrective movements, local corrective movements.***INTRODUCTION**

One of the basic human needs for daily activities is having healthy upper and lower limbs. In comparison to other parts of the human body, the foot shows more structural changes [Wong C *et al.*, 2012]. Some of the consequences of abnormalities in the foot arch are related to the functions of these arches, and since the functions of these arches include creating more movement in the foot, as well as absorbing and distributing the impact forces that enter the body from the foot, these arches do

not allow all incoming forces to enter the body [Peng Y *et al.*, 2021]. Having a natural foot arch allows for proper weight distribution on the feet and transferring it to the ground. Additionally, other benefits of having a natural foot arch include natural walking and running, and supporting the soft tissues of the foot in the presence of these arches. Given the high importance of the longitudinal arch, it is essential to take good care of it.

The internal arch of the foot and its function in

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