

# Effects of Proprioceptive Exercises and Plyometric Exercises for Flatfoot Associated with Pain

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## Abstract

*Introduction:* Flatfoot is a common foot deformity, causing the medial longitudinal section of the foot to come closer to or touches the ground. A decrease in the medial longitudinal arch results in flatfoot.

*Methods:* A total of 20 young adults, both male and female with flatfoot has been recruited for the study. Screening tests were carried out, based on inclusion and exclusion criteria the participants were divided into proprioceptive exercises group (n = 10) and plyometric exercises group (n = 10) groups. These groups receive training for 4 days a week for 4 weeks with 3 sets of 10 reps. The standing stork test is used to assess the proprioception and Numerical pain rating scale is used to assess the pain.

*Result:* The post-test mean $\pm$ SD values of proprioceptive exercises with ultrasound on pain and proprioception were found to be (1.60 $\pm$ 0.70) and (22.30 $\pm$ 1.88) which is higher than the post-test mean $\pm$ SD values of plyometric exercises of pain and proprioception (6.30 $\pm$ 0.67) and (14.40 $\pm$ 2.07). The p-value of <0.0001 shows that the findings are statistically significant.

*Conclusion:* The study concludes that proprioceptive exercises group shows a promising effect in reducing the pain and increasing the proprioception than the plyometric exercises group in participants with flatfoot.