

# The effects of neuromuscular training on the postural control of university volleyball players with functional ankle instability: A pilot study

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**Introduction:** In volleyball about 90% of players ever suffer an ankle sprain, being repetitive episodes of main complications. It is suggested that neuromuscular training could improve the functionality of the ankle and decrease the risk of a sprain. **Objective:** To determine the effects of a neuromuscular training on postural control in college volleyball players with functional ankle instability (FAI).

**Method:** Quasi-experimental research. The sample was composed of 12 college volleyball male players between 18 and 23 years old. A neuromuscular training of four weeks was carried out and it was distributed in three weekly sessions from 15 to 25 min, on non-consecutive days, totaling 12 sessions. The volume of training was regulated using a progressive periodization and focused mainly on the lower limb, performing it prior to the regular training of the volleyball players. Pre and post intervention postural control were evaluated on a force platform in conditions of open eyes (OE) and closed eyes (CE). From this evaluation, the following variables of the center of pressure (CP) were calculated: Area, mean velocity, medio-lateral (ML) velocity and anteroposterior (AP) velocity. T-student test was applied for comparisons with an alpha level of 0.05. **Results:** In OE there was a significant decrease in the ML velocity ( $p = 0.036$ ). In CE significant differences between pre and post intervention were observed in mean velocity ( $p = 0.043$ ), AP velocity ( $p = 0.019$ ) and ML velocity ( $p = 0.027$ ). **Conclusion:** A four-week training neuromuscular improved postural control on college volleyball players with IFT included in this study. © 2019 Archivos de Medicina del Deporte.

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Ankle

Joint instability

Postural balance

Sprain

Volleyball