

Effects of an Eccentric Training Protocol on Speed Performance in Chilean Adolescents

- Angulo-Gómez E.^a
- Hernández-González J.^b
- Portes-Junior M.^c
- Hernández-Mosqueira C.^d
- Hermosilla-Palma F.^e

Abstract

Introduction: The specialized literature has described the benefits of strength training on running speed. In the same way, stimulation of training based on eccentric contractions has been shown to be effective in improving this quality. Objective: To determine the effects of a training protocol based on the stretch-shortening cycle (SSC) and another on eccentric contractions (Nordic curl) on the running speed in 20 meters in adolescents from the Ñuble Region, Chile. Methodology: 42 school subjects were divided into experimental group (n = 22) and control group (n = 20). The training was developed for 6 weeks, with a frequency of 2 sessions/week, going from a volume of 8 to 32 repetitions of Nordic curl per session for the experimental group. The speed performance was evaluated in 20 meters. With photocells, the T Student's was applied to compare the pre- and post-intervention results, and the effect size (ES) was calculated. Results: Statistically significant differences were found ($p < 0.05$) from the intervention in the experimental group (pre= 3,43 s. vs post= 3,15 s.), and a large ES (1,04). Conclusion: It is concluded that the eccentric training based on the application of Nordic Curl improves the performance of the running speed. © 2022 Universidad Nacional. All rights reserved.

Author keywords

Exercise; Muscle contraction; Velocity