

Effects of running technique training on game-related sprint tests in 10-year soccer players.

Corrado Lupo¹, Mattia Varalda², Antonio Tessitore³

¹ School of Exercise & Sport Sciences (SUISM), Department of Medical Sciences, University of Torino, 10142 Turin, Italy

² School of Exercise & Sport Sciences (SUISM), University of Torino, 10142 Turin, Italy

³ Department of Movement, Human and Health Sciences, University of Rome Foro Italico, 00135 Rome, Italy

The present study aimed at comparing the effects of a 12-week soccer training on sprint ability in 16 pre-pubescent (9.5 ± 0.3 yrs) soccer players. Twice a week the participants were administered the same technical and tactical training and friendly matches, whereas twice a week group 1 was trained exclusively on running techniques, and group 2 was administered multilateral workouts. Before (PRE) and after (POST) the experimental period, sprint ability was ascertained ("Chrono Time" photoelectric cell system; Globus; Codognè, Treviso, Italy) by means of four 20-m sprint tests performed twice with the best trial used for statistical analysis: linear sprint (L), linear sprint with ball possession (LB), sprint with change of direction (CoD), sprint with change of direction and with ball possession (CoDB). A Mann-Whitney U was applied to evaluate differences ($P\leq 0.05$) between groups and PRE-POST conditions. Whilst group 1 showed improvements in all sprint performances (L=3.5%, LB=5.4%, CoD=5.0%, CoDB=6.2%), group 2 showed progresses only in LB=5.8%, CoD=2.9%, CoDB=1.7%. However, differences between conditions ($p=0.046$) emerged only in group 1 for CoDB. Between groups, differences emerged for CoDB ($p=0.015$) in PRE (group 1: 7.46 ± 0.37 , group 2: 7.84 ± 0.42 ; $p=0.046$) and POST (group 1: 7.00 ± 0.47 , group 2: 7.71 ; $p=0.078$) conditions. With respect to multilateral workouts, the present findings indicate that training focused on running techniques seems to be more effective for improving pre-pubescent soccer players' sprint performances, especially for change of direction with ball possession, which is the most game-related sprint activity. However, further studies need to clarify the optimal balance between multilateral and specialized training for youth soccer players [1].

References

[1] Martin D. (2001). Multilateralità e specializzazione. Scuola dello Sport, p. 23.

Keywords

Running technique, team sport, pre-pubescence, testing