Effects of plyometric training on maximal-intensity exercise and endurance in male and female soccer players

Ramírez-Campillo R.

Vergara-Pedreros M.

Henríquez-Olguín C.

Martínez-Salazar C.

Alvarez C.

Nakamura F.Y.

De La Fuente C.I.

Caniuqueo A.

Alonso-Martinez A.M.

Izquierdo M.

In a randomised controlled trial design, effects of 6 weeks of plyometric training on maximal-intensity exercise and endurance performance were compared in male and female soccer players. Young (age 21.1 ± 2.7 years) players with similar training load and competitive background were assigned to training (women, n = 19; men, n = 21) and control (women, n = 19; men, n = 21) groups. Players were evaluated for lower- and upper-body maximal-intensity exercise, 30 m sprint, change of direction speed and endurance performance before and after 6 weeks of training. After intervention, the control groups did not change, whereas both training groups improved jumps (effect size (ES) = 0.35?1.76), throwing (ES = 0.62?0.78), sprint (ES = 0.86?1.44), change of direction speed (ES = 0.46?0.85) and endurance performance (ES = 0.42?0.62). There were no differences in performance improvements between the plyometric training groups. Both plyometric groups improved more in all performance tests than the controls. The results suggest that adaptations to plyometric training do not differ between men and women.

muscle action

Muscle strength

sports

strength training

women

adaptation

competitive behavior

controlled study

endurance

exercise

female

human

male

muscle strength

physiology

plyometrics

procedures

randomized controlled trial

sex difference

soccer

young adult

Adaptation, Physiological

Competitive Behavior

Exercise

Female

Humans

Male

Muscle Strength

Physical Endurance

Plyometric Exercise

Sex Factors

Soccer

Young Adult