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Effects of Plyometric and Directional Training on Physical Fitness Parameters in Youth Soccer Players.

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Abstract

PURPOSE: To investigate whether the combination of a **soccer training** session, **plyometric training**, and change-of-direction (COD) exercises would enhance **soccer** ability to a greater extent than **training** on its own in **youth soccer players**.

METHODS: Thirty-one **youth players** participated in this study (age: 12 [0.8] y). **Players** were randomly separated into 2 groups: a control group (CG, n = 14) and an intervention group that performed extra **plyometric training** and COD exercises (intervention group, n = 17). The duration of the **training** program was 6 wk. **Players'** performances in sprint (10 and 30 m), countermovement jump, squat jump, long jump, multiple 5-bound, T-test, and Yo-Yo Intermittent Endurance Test 1 were measured before and after the **training** program.

RESULTS: **Players'** performance in acceleration, T-test, and long jump improved in both groups (P = .03, P = .002, and P = .001, respectively). Squat-jump performance increased in the intervention group (15.2%, P = .003) and slightly decreased in the control group (P = .003). The performances of the 2 groups differed significantly in squat jump and long jump (P = .003 and P = .038, respectively).

CONCLUSIONS: This study indicates that a short-term combined program of **plyometric training** and COD exercises can improve jumping ability, acceleration, and endurance **parameters** in **youth soccer players**. The small **training** effect could be explained when taking into account the level of the participants, the duration of the program, and the low volume of COD exercises used.

KEYWORDS: change of direction; football; jumping exercise; power