

Effect of High Intensity Interval Method on Increasing Lactic Anaerobic Capacity

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Abstract

The purpose of the present study shows the effects of HIIT but with Change of Direction (COD) and increase attention to the usefulness of using high intensity interval training as a tool to improve lactic anaerobic capacity and athletic performance.

Hypothesis, High Intensity Interval Training with Equal Duration 30 sec with 120 - 150% Intensity of VO₂ max with COD and Recovery Time Between Repetitions and Sets: 30''- 45'' sec Roll Over with 60 -70% vVO₂ max / 3 min, leads to improved anaerobic lactacid capacity. The Test group participated for 8 weeks in an Intervention training is based on HIT training with 5 stations with running shifts. The training intervention in this study is composed of a training circus as follows: High Intensity Runs: 90, 45, 180 degree curves, Volume: 1000-1200 meters, Distance: 120 - 150 meters, Realization time: 30 sec, Intensity: 120 - 150% of vVO₂ max, Number of repetitions: 3 x, Series: 3 x, Break time between repetitions and sets: 30 ''- 45'' sec Roll Over with 60 -70% vVO₂ max / 3min, Training frequency and duration: 2 times a week, for 8 weeks. Result of Test Group show, improvement of realization time in the second RAST test by 20%, in 300-meter second test by 2%, in 1000-meter second test by 2%. Improvement of the distance in the Copper second test by 4.3% and improvement of VO₂ max in second Åstrand Test 6minute by 22.5%. Conclusion: High Intensity Interval Training combined with Change of Direction (COD) Drill with small volume with high intensity may be an exercise for football sports for ages 15-16 years in improving the improve lactic anaerobic capacity and athletic performance even in the middle of the championship phase.

Keywords: HIIT, Soccer Player, Change of Direction (COD), Lactic Anaerobic Capacity.