

INTERVAL TRAINING WITH ACTIVE RECOVERY AND THE PHYSICAL CAPACITY OF RECREATIONAL MALE RUNNERS

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Abstract

Introduction. So far there have been few studies on the effect of interval training with active recovery aimed at increasing aerobic power on the physical capacity of long-distance runners. Unlike standard interval training, this particular type of interval training does not include passive rest periods but combines high-intensity training with low-intensity recovery periods. The aims of the study were to determine the effect of aerobic power training implemented in the form of interval training with active recovery on the physical capacity of amateur long-distance runners as well as to compare their results against those of a group of runners who trained in a traditional manner and only performed continuous training. **Material and methods.** The study involved 12 recreational male long-distance runners, who were randomly divided into two groups, consisting of 6 persons each. Control group C performed continuous training 3 times a week (for 90 minutes, with approximately 65-85% VO₂max). Experimental group E participated in one training session similar to the one implemented in group C and additionally performed interval training with active recovery twice a week. The interval training included a 20-minute warm-up and repeated running sprints of maximum intensity lasting 3 minutes (800-1,000 m). Between sprints, there was a 12-minute bout of running with an intensity of approximately 60-70% VO₂max. The time of each repetition was measured, and the first one was treated as a benchmark in a given training unit. If the duration of a subsequent repetition was 5% shorter than that of the initial repetition, the subjects underwent a 15-minute cool-down period. A progressive treadmill test was carried out before and after the 7-week training period. The results were analysed using non-parametric statistical tests. **Results.** VO₂max increased significantly both in group E ($p < 0.05$; $d = 0.86$) and C ($p < 0.05$; $d = 0.71$), and there was an improvement in effort economy at submaximal intensity. Although the differences were not significant, a much greater change in the post-exercise concentrations of lactate and H⁺ ions was found in group E. **Conclusions.** The study showed that interval training with active recovery increased VO₂max in amateur runners with higher initial physical capacity and stimulated adaptation to metabolic acidosis more than continuous training.

Key words: amateur runners, training, continuous method, interval training with active recovery, physical capacity