

THE EFFECTS OF A 10-WEEK STEP AEROBICS TRAINING ON VO₂max, ISOMETRIC STRENGTH AND BODY COMPOSITION OF YOUNG WOMEN

Abstract. Health status is partly determined by physical fitness level. Physical fitness can be developed through different physical activities under condition that regularity and intensity are maintained on optimal level. One of such physical activities is step aerobics - one of the most popular collective fitness forms offered in fitness clubs. The objective of this study was to evaluate the influence of step aerobics training on VO₂max, isometric strength and body composition of young female students.

Female students aged 19–21 of University of Physical Education and Sport in Gdańsk were subjects in this study. VO₂max, isometric strength of elbow flexors and knee extensors, as well as body composition, were measured week before and week after a ten-week step aerobics training. For statistical analysis, basic descriptive statistics and student's t-test were applied for dependent variables.

After ten weeks of training there were no statistically significant changes in body composition, probably due to lack of calorie intake control. Significant changes were observed in isometric strength of elbow flexors but no changes in isometric strength of knee extensors. There was a compensation in isometric strength noted between left and right leg after ten weeks of training, where left leg was weaker than the right leg before training. Significant changes were noted in VO₂max values, which increased from 42.04 ml/kg/min⁻¹ to 45.71 ml/kg/min⁻¹.

Step aerobics training can sufficiently increase VO₂max in young females and has a potential in developing strength of upper extremities. When body composition is the main purpose, diet should be taken under consideration.