Abstract

introduction: The theoretical part of the thesis briefly analyzes the anatomical, kinesiological and physiological aspects of breathing, pursues the issue of examinations of lung functions and also includes a chapter which applies to incentive spirometers.

The experimental part of the work examines the impact of three-week training with trainer Coach2 on parameters of respiratory gas exchange at rest and during the exercise in healthy subjects.

methods: Both output and control tests included spirometry and spiroergometry examination. The experimental group consisted of 10 subjects, control group consisted of 9 subjects.

results: Our results show a significant influence especially on an increase in FVC, decreased respiratory rate at submaximal intensities of exercise and increased breathing rate at maximum load and also an increase in tidal volume at all load levels. Minute ventilation at maximum load increased by an average of 15.17 liters. The control group did not show any improvement.

conclusion: It appears that training with trainer Coach2 might be effective in influencing certain ventilatory parameters at rest as well as during the exercise.