

## The Study of Impact Continuous and High-Intensity Interval Training on Some of Spirometry Indices Following in Young Non-Athletic Men

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**Abstract :** The purpose of the present study was to investigate the impact of continuous (CT) and high-intensity interval training (HIIT). High-intensity interval training (HIIT) is a form of interval training, a cardiovascular exercise strategy that alternates short periods of intense anaerobic exercise with periods of lower intensity recovery, ending before reaching peak fatigue. The method is not limited to aerobic exercise and often includes weightlifting for short periods. Although there is no universal standard for the duration of a HIIT session, these intense workouts typically last less than 30 minutes because they utilize anaerobic energy systems, which are typically used for short, rapid bursts. Times vary based on a participant's current fitness level. Additionally, traditional HIIT is designed to be no more than 20 seconds of high intensity and no more than 10 seconds of low intensity. This system delivers anaerobic energy. The intensity of HIIT also depends on the duration of the session. With acute endurance activity, the respiratory system is involved in parallel with the cardiovascular and muscular systems up to 6 times during rest. In this experimental study, 30 subjects with an average age of 18-22 years participated in 2 experimental and control groups. Spirometric indices measured included: VC (Vital Capacity), FVC (Force Vital Capacity) FEV1 (Force Expiratory Volume 1 Seconds). Spirometer indices decreased following acute aerobic exercise (impact of continuous (CT) and high-intensity interval training (HIIT)). However, the decrease was not significant at the 5 percentile level. VC.  $p=0.756$ , FVC.  $p=0.675$ , FEV1.  $p=0.457$ . After intense aerobic exercise, inflammation in the respiratory tract occurs, which is called bronchospasm or exercise-induced asthma. However, this condition is temporary, and the inflammation in the respiratory tract will subside after rest. It is likely that the decrease in spirometry values after acute endurance exercise is due to inflammation of the respiratory tract, especially the trachea. Also, the relative improvement in spirometry indices after a day of rest is due to the reduction in inflammation in the respiratory tract, especially the trachea. Therefore, the reason for the decrease in spirometry values is due to the friction of the flow of air molecules in the tracheal wall, which leads to inflammation and narrowing of the duct.

**Keywords :** HIIT, spirometric, training, non-athletic

**Conference Title :** ICPESS 2025 : International Conference on Physical Education and Sport Science

**Conference Location :** Rome, Italy

**Conference Dates :** May 01-02, 2025