

The respiratory system adaptation during physical exercise

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Abstract

During physical exercise a significant ventilation increase occurs. It is based on the increase in the forced vital capacity and on that of the respiratory ratio, and it also depends on the subject's training intensity. The respiratory parameters assessed during the physical exercise test are as follows: maximal oxygen consumption and CO₂ elimination. Based on these parameters the respiratory ratio can be calculated. According to the maximal oxygen consumption there are three stages of physical exercise, viz.: the adaptation stage, the functional steady state and the recovery period to resting state.

Key words: physical exercise, maximal oxygen consumption, ventilation, CO₂ elimination, respiratory ratio.