

大学正課体育実技の教育効果に関する研究

(1) 大学新入学生の呼吸循環機能, および体育実技の呼吸循環機能の
向上におよぼす効果について

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Studies on the Educational Effects of Required Physical Activity Courses at the University of Tokyo

Cardiorespiratory functions of versity freshmen and the effect of required
physical activity in versity curriculum on those functions

by

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The purpose of this study was to measure the maximum oxygen intake and oxygen debt of versity freshmen and to analyse the effect of required physical education program in versity curriculum on these functions.

Fourteen students were tested three times—first at immediately after the matriculation, second at the end of first semester, third at the end of second semester that is the end of first year.

The maximum oxygen intake was measured by collection of expired air during one minute before exhaustion of treadmill running. After the exhaustion, expired air was also collected for 30 minutes continuously at sitting position, and from that air the oxygen debt was calculated.

The conclusions are as follows:

1. The maximum oxygen intake per body weight of versity freshmen at immediately after the matriculation is 48.3 ml/kg·min and that value is something less than that of Japanese adolescent of same age. That reason is supposed they were lacking in physical activity for preparation of entrance examination of university.

2. The maximum oxygen intake and oxygen debt of these subjects are increased after participating to required physical education program in versity curriculum for eight successive weeks. The improvement of those function is better in the students who participated to physical training class than in those who participated to sport class.

3. Although they showed considerable improvement of cardiorespiratory functions during first semester, no improvement was observed during second semester. [Proceedings of Department of Physical Education, College of General Education, University of Tokyo, No. 6, 1~5, 1971]

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