

研究業績 英文表記

和文	
表題	男子大学生における最大酸素摂取量及び至適運動強度としての二重積屈曲点レベルとの関連性について
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英文	
Title	Estimated Maximal Oxygen Uptake among Male College Students, and its Relationship with Double Product Break Point Level as an Index of Optimum Exercise Intensity
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Abstract	<p>The purpose of this study was to determine aerobic capacity by maximal estimated oxygen uptake ($\dot{V}O_{2max}$) and elucidate the relationship between the double product break point (DPBP) and $\dot{V}O_{2max}$ among male college students in their education classes. In study 1, among 92 male students of the department of rehabilitation a significant positive correlation was found between the work rate and the pulse rate during the multistage exercise load, therefore $\dot{V}O_{2max}$ was assumed to be accurately measured. In study 2, among 68 male students of the department of sports health and welfare, DPBP was determined continuously from the systolic blood pressure and the heart rate during the ramp exercise load. The work load at DPBP was divided by body weight ($Watts@DPBP/Wt$) and then used as an optimal exercise intensity. Their $\dot{V}O_{2max}$ was also estimated in another day by the same method of study 1. In the lower $\dot{V}O_{2max}$ group the body weight was significantly higher but the $Watt@DPBP/Wt$ was significantly lower compared with the higher $\dot{V}O_{2max}$ group. In conclusion, it is valuable to measure aerobic capacity in college education classes to make the students aware of themselves and improve health literacy.</p>
keyword	college education class, physical fitness test, aerobic capacity, maximal oxygen uptake, submaximal exercise stress test

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