

An increase in maximum oxygen uptake due to *Chlorella* ingestion

Presented at the 26th Annual Meeting of the Japanese Society of Clinical Sports Medicine

[Objectives]

We have already reported that *Chlorella* ingestion improves aerobic capacity (the 21th Annual Meeting of the Japan Society of Exercise and Sports Physiology; *J Clin Biochem Nutr.* 55[2]). The present study investigated the mechanism of the improvement in aerobic capacity.

[Methods]

Thirty-four male students were divided into *Chlorella* (17 subjects) and placebo (17 subjects) groups. Each subject ingested 30 tablets daily for 4 weeks. Both before and after 4-week ingestion, aerobic capacity was determined, and blood samples were collected. A survey of diet was also conducted through a questionnaire and interview by a registered dietitian before the start of ingestion.

[Results]

The results showed an increase in maximum oxygen uptake and a decrease in serum vitamin B₂ levels in the *Chlorella* group. The survey of diet revealed large individual variations in intake of nutrients even among students living in the same dormitory.

On the basis of these results, *Chlorella* ingestion might enhance aerobic energy metabolism to increase vitamin B₂ consumption, resulting in decreased blood vitamin B₂ levels (Figs. 1 and 2). In addition, *Chlorella*, a general nutritional supplement, was shown to have the potential to be helpful for nutritional support, considering that considerable individual variations in nutrient intake may exist among people.

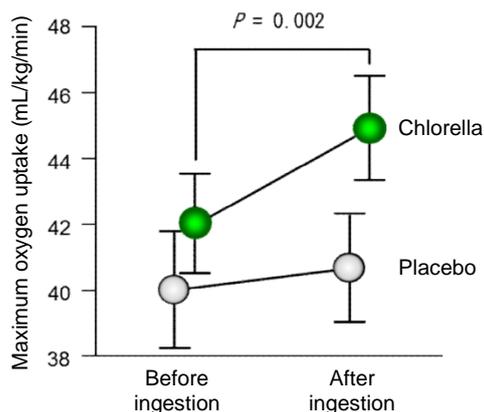


Fig. 1 Changes in maximum oxygen uptake (aerobic capacity)

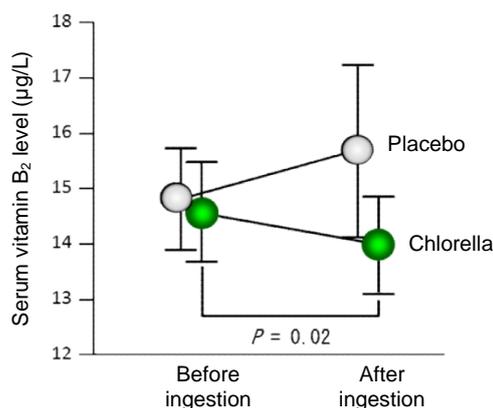


Fig. 2 Changes in serum vitamin B₂ levels

<<Details>>

Academic meeting:	The 26th Annual Meeting of the Japanese Society of Clinical Sports Medicine in 2015
Title:	Changes in Maximum Oxygen Uptake due to Ingestion of a <i>Chlorella</i> -Derived General Supplement, Dietary Habits, and Serum Vitamin B ₂ Levels
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