

Brief Report

# Application of the lunch box dietary method in nutritional guidance for athletes

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## ABSTRACT

The purpose of the study was to investigate the significance of the lunch box dietary method in the nutritional guidance for athletes and to evaluate the surface area ratio of staple food, main dishes, and side dishes based on the lunch box dietary method.

Lunch boxes were divided into nine categories by combination of three types of energy levels of 2500 kcal, 3500 kcal, and 4500 kcal, and three types of body weight, then, nutrients were applied to each category. A set menu was designed for each category with the amount of one third of the daily intake, and packed into the lunch-box after cooking.

In all the menus, the surface area ratio for staple food, main dishes, and side dishes was 2:1:1. The ratio of side dishes for athletes was lower than that for the general population, because the amount of main dishes was higher due to a higher protein requirement. Consequently, the surface area of side dishes was reduced by changes in the surface area proportion.

In conclusion, the lunch box dietary method is applicable to the nutritional guidance for athletes by the change to surface area ratio.

**Keywords:** lunch box dietary method, athlete, nutrition education