

Original Article

# Effect of nutrition education on the body composition and energy and nutrient intake in university athletes

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## ABSTRACT

### **【Aim】**

Recently education-focused nutritional support for the physical development of sports athletes has been shown to be effective. However, the effects of nutrition education on teammates of the same sports club receiving/not receiving nutrition education have not yet been investigated. The purpose of this study was to investigate the effects of the presence/absence of nutrition education on the diet, lifestyle, body composition, and conditioning of teammates in a university basketball club.

### **【Methods】**

The subjects were 41 male university basketball players, of whom 22 received nutrition education (NE group) in the preseason, while the remaining 19 did not get any nutrition education (NO group). We then compared the body composition, diet, and conditioning of the teammates.

### **【Results】**

In both the NE and NO groups, the body fat mass and visceral fat level were significantly reduced. In contrast, a significant increase of the muscle mass was only observed in the NE group. The NE group showed significantly increased intakes of protein, protein per unit body weight (g/kg), calcium, vitamin C, and green vegetables. In addition, our study showed the possibility that the muscle mass increases in subjects who increase their intake of grains.

### **【Conclusion】**

Our results suggest that nutrition education leads to improvements in the intake of energy, nutrients, and food groups in university athletes and the possibility that these improvements effect a positive change in the body composition of the athletes, such as increased muscle mass.

**Keywords:** nutrition education, university athlete, body composition, amount of nutrient intake