

## High Percentage of Fat Calorie Intake may Result in Overweight Cyclists, Not Total Amount of Calorie Intake

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### ABSTRACT

Obesity has become a worldwide epidemic, representing a major health care challenge in the 21st century. There were numerous studies conducted to find a most effective intervention for reducing percentage of body fat. Among those interventions, exercise training has been proven to be a very effective strategy by enhancing the capacity to burn more body fat (fat oxidation capacity). However, there are the number of trained people with high % body fat even though they maintain high level of physical activity. **PURPOSE:** To compare various physiological variables including fat oxidation and diet patterns between normal and overweight trained cyclists. **METHODS:** Twelve well-trained amateur male cyclists aged  $41.25 \pm 1.65$  yrs were assigned to either normal group (NO) and overweight group (OW) based on % body fat by hydrostatic measurement ( $19.56 \pm 1.08$  vs.  $25.23 \pm 1.34$  % body fat) (each N=6). Respiratory exchange ratio (RER), blood pressure, blood lactate concentration, and heart rate were measured during the maximal test using a cycle ergometer. Dietary patterns were analyzed by three days diet log using computer software (DietPower). Independent t-test and two-way ANOVA with repeated measures were used to analyze data. **RESULTS:** There were no differences between NO and OW for age, height, weight, and body mass index. In addition, there were no differences between NO and OW for all cardiopulmonary fitness variables at rest and during maximal effort ergometer test. However, this study found that percentages of fat intake of OW was significantly higher compared to one of NO (OW:  $41.67 \pm 2.95$  %; NO:  $27.00 \pm 2.25$  %,  $p < 0.05$ ). **CONCLUSION:** The findings of our study indicate that a greater body fat in some endurance-trained athletes would not be explained by cardiovascular, metabolic parameters and/or total caloric intake, but may be explained by high percentage of caloric intake from the fat.

