

# Variations of body composition, physical activity and caloric intake in schoolchildren during national holidays

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**Abstract:** Scientific literature has described that a significant body weight increase in schoolchildren occurs during some holiday periods (summer, winter, and thanksgiving holidays), harming their health. In this regard, it is thought that this phenomenon is mainly due to changes in eating habits and the variation in levels of physical activity; however, this approach has not yet been explored during national holidays (NAH) in Chile. **Purpose:** To determine any changes in body composition, physical activity and caloric intake during NAH. **Methods:** A total of 46 schoolchildren (24 boys, age  $10.5 \pm 0.5$ ; BMI  $21.7 \pm 4.7$ ) participated. Measurements were performed 2 days before and after the NAH (9 days). Weight was measured and fat percentage was established using the Slaughter formula. Levels of physical activity were measured with accelerometers, validating 3 weekdays and 1 weekend; caloric intake was established through a 24-h recall. **Results:** Weight, percentage of fat and caloric intake increased significantly (250 g, 2.2 % and 733.3 kcal, respectively;  $p < 0.05$ ); however, none of the variables of physical activity showed significant changes. **Conclusion:** The change in caloric intake seems to be the main cause of weight and fat gain during the NAH. © 2015, Springer International Publishing Switzerland.

Body weight

Diet

Fat mass

Physical activity

fat

accelerometer

Article

body composition

body fat

body mass

body weight

caloric intake

child

Chile

eating habit

energy expenditure

fat mass

female

habit

human

leisure

male

physical activity

school child

waist circumference

body composition

caloric intake

exercise

feeding behavior

leisure

physiology

weight gain

Body Composition

Body Weight

Child

Energy Intake

Exercise

Feeding Behavior

Female

Holidays

Humans

Male

Weight Gain