

# Consumption of non-nutritive sweeteners and nutritional status in 10-16 year old students [Consumo de edulcorantes no nutritivos y estado nutricional de escolares de 10-16 años]

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**Introduction.** The impact of non-nutritive sweeteners (NNS) on energy intake and body weight is not clear although they provide no energy compared to sucrose. **Objective.** To establish if there are differences in the consumption of NNS as per the nutritional status and its association with overweight. **Population, Material and Methods.** Cross-sectional study including 571 male and female students aged 10-16 years old from the cities of Viña del Mar and Santiago de Chile who were administered an adapted food survey using pictures of NNS-containing products; nutritional status was assessed and students with overweight and obesity were categorized as a the overweight group. **Results.** Of all surveyed students, 96.6% consume NNS on a daily basis. The comparison between the total NNS intake by nutritional status showed that male students in the overweight group consume more sucralose ( $p < 0.05$ ) and saccharin ( $p < 0.01$ ), while the comparison of NNS intake per kilogram of body weight showed that NNS consumption was higher in the overweight group ( $p < 0.05$ ). Among female students, the normal weight group showed a higher consumption of acesulfame K per kilogram of body weight than the overweight group ( $p < 0.05$ ). No association was observed in the studied sample between the overall NNS intake and obesity. **Conclusion.** Of all surveyed students, 96.6% consume NNS on a daily basis, and no association was found between NNS consumption and overweight.

Non-nutritive sweeteners

Nutritional status

Overweight

Students

acesulfame

aspartame

nonnutritive sweetener

saccharin

sucralose

cyclamate sodium

nonnutritive sweetener

adolescent

article

body height

body weight

caloric intake

child

childhood obesity

Chile

comparative study

controlled study

cross-sectional study

female

health survey

human

major clinical study

male

nutritional status

student

underweight

Article

child nutrition

correlational study

disease association

food intake

nutritional assessment

school child

student

weight gain

dietary intake

normal human

obesity

Overweight

Adolescent

Child

Cross-Sectional Studies

Female

Humans

Male

Non-Nutritive Sweeteners

Nutritional Status

Obesity

Overweight

Students