# Consumption of ultra-processed food products, diet quality and nutritional status among Mexican children

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**Abstract**

Ultra-processed food consumption has increased in recent years. The evidence suggests a positive association between consumption of ultra-processed food consumption and low diet-quality and malnutrition, characterized by nutritional deficiencies and high prevalence of obesity and overweight. In México the combined prevalence of overweight and obesity in schoolchildren is 33.2%, and ultra-processed food consumption varies from 40.4% to 81.5% depending on the product. The objective of this study was to describe the association between ultra-processed food consumption, diet-quality and nutritional status in Mexican schoolchildren. We analyzed dietetic and anthropometric data from 364 children (6–12 years) of two communities in the center of México. Four 3d-recalls (three days records followed up for ten months including weekdays and weekends) were used for data collection. Consumed foods were classified according to the level of processing using the NOVA classification. Portions of each food, dietary energy, macro and micronutrients intakes were calculated in accordance with the Mexican equivalent food system, nutrition labelling of each product and software Nutrimind® 15.0. Nutritional status was evaluated according to BMI categories; diet-quality was assessed calculating a dietary score. All data were adjusted by energy. In our study, 32% of foods consumed by schoolchildren were ultra-processed, 49% were minimally processed or unprocessed. 30% of the energy intake derived from ultra-processed foods (95% CI 29.2–33.2%). Major ultra-processed foods in habitual diet were bakery, pastries (23%), sugar-sweetened beverages (dairy and non-dairy) (22%), processed meat (18%), pizzas and pastas (9%), and canned vegetables (4%). Children in the highest quartile of ultra-processed foods consumption, presented lower diet-quality than those in the lowest quartile. In this group of children, 38.0% presented combined overweight or obesity, although there were no statistically significant differences between nutritional status and ultra-processed food consumption. Regular ultra-processed food consumption is associated with a lower diet quality in healthy schoolchildren. It is necessary to implement strategies to reduce intake of these products to avoid possible risks to health in early ages.

**Conflict of Interest**

There is no conflict of interest