



## 347 - CROSS-SECTIONAL ASSESSMENT OF NUTRITIONAL STATUS, DIETARY INTAKE, AND PHYSICAL ACTIVITY LEVELS IN CHILDREN (6–9 YEARS) IN VALENCIA (SPAIN) USING NUTRIMETRY

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### Resumen

**Background/Objectives:** “Nutrimetry” combines accessible and easy anthropometric variables, in order to facilitate a joint interpretation of these indicators and generate a more complete diagnosis of nutritional status. This multifaceted approach provides detailed, personalized, and actionable insights into a child’s nutritional status and can help prevent and treat obesity, ultimately promoting healthier lifestyles and better long-term health outcomes for children. The aims of this research were to evaluate the current nutritional status applying nutrimetry, dietary intake and its compliance with established recommendations; and physical activity and its compliance with established recommendations.

**Methods:** This descriptive cross-sectional study was part of the Antropometría y Nutrición Infantil de Valencia (Valencian Anthropometry and Child Nutrition) or ANIVA project conducted on 2724 schoolchildren aged 6–9 years old attending primary school in the Valencian community during the 2016–2023 academic years. Nutritional status was assessed using nutrimetry, dietary intake through a questionnaire and 3-day food journal completed by the parents and physical activity with an ad hoc questionnaire. In this study, children were classified as sedentary/lightly active, moderately active, or very active. The physical activity level factor (PAL) was calculated individually for each child, considering the child’s age, the type/intensity of daily physical activity, and the duration of daily physical activity.

**Results:** The nutricode with the highest prevalence (51.3%) was healthy weight/normal stature. For the BMI for age Z-score, those in the overweight/obesity category represented 37.5% of the sample, while the thinness category included 7.6%. Intake of calories, proteins, sugar, lipids, SFA, MUFA, and cholesterol were significantly higher than recommended. The thinness groups consumed a significantly higher amount of excess calories while the overweight/obesity groups had the lowest mean excess calorie intake. Children in the thinness category presented the highest rates at both ends of the spectrum for sedentary activities.

**Conclusions/Recommendations:** Nutrimetry classifications do not appear to be solely related to caloric intake or dietary quality. The results show that a physical activity intervention would not be sufficient to improve anthropometric status. The results for the risk of thinness and overweight/obesity according to individual nutrient intake should be carefully interpreted. Lifestyle is a fundamental aspect to consider when combating malnutrition, especially at the level of dietary and physical activity habits, to combine various methods of intervention to improve nutritional status.