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# **An Investigation of the Breakfast Habits and Dietary Intakes of Year 8 Auckland Children**

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## **Abstract**

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Breakfast is often referred to as the most important meal of the day. Studies have consistently shown that regular breakfast consumption makes a significant contribution to nutrient intake. Additionally, individuals who have skipped breakfast often do not make up for the missed nutrients during the remainder of the day. Results from the National Children's Nutrition Survey show that breakfast consumption varies with ethnicity and age. In particular, Pacific Island children and older children were less likely than other ethnic and age groups to have breakfast.

The overall aim of the current study was to collect detailed information on dietary intake, breakfast habits, choices, and preferences of intermediate school children. Two multi-cultural decile six intermediate schools in North Shore City, Auckland were selected to participate. A dietary assessment of over two hundred students (12-13 years of age) was completed using a dietary recall methodology. Data were also collected on breakfast habits and preferences, and anthropometric measurements made. A subset group of 52 students was randomly selected to provide detailed information on their nutrient intake. Each student within the subgroup completed two 24-hour recalls during the school week, and a food diary on a Saturday.

Findings from this research showed that both male and female students had a high level of breakfast consumption, with over half of the students reporting that this represented their daily habit. Overall, only 4% reported that they rarely or never have breakfast. The most reported reason given for skipping breakfast was not being hungry in the morning, followed by preferring to sleep in, and then lack of time. There was some evidence from this study that the daily commitments of family members (e.g., working parents) may influence breakfast eating habits. Additionally, it is likely that the availability of preferred breakfast foods at home contributed to high breakfast consumption observed in this study population.

Interestingly, breakfast consumption was not significantly associated with gender, but was however influenced by ethnicity, with Maori/Pacific Island children less likely to eat breakfast than children of other ethnic groups ( $P = 0.001$ ). Breakfast skippers had a significantly higher body mass index (BMI) compared to breakfast eaters, although further research is required to assess the association between habitual breakfast consumption and BMI.

The majority of breakfast consumers chose foods and beverages that contributed to a balanced breakfast. Of those subjects who had breakfast, over 60% consumed a cereal, with the most popular being Weet-Bix. Findings from the subgroup analysis showed that the consumption of breakfast made a significant contribution to the daily intake of nutrients such as iron, calcium, folate, riboflavin, and thiamin, for both male and female breakfast eaters.

The information gained from this study may facilitate the implementation of nutrition education and intervention programmes designed to improve eating patterns (in particular breakfast consumption) and the dietary intake of children and adolescents. Promoting and maintaining good breakfast habits in children of this age group may lead to improved breakfast consumption patterns and health as they progress through adolescence.

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## List of Abbreviations

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BMI	Body Mass Index
CHO	Carbohydrate
CNS	Child Nutrition Survey
NZ	New Zealand
NZFCDB	New Zealand Food Composition Database
NZNF	New Zealand Nutrition Foundation
MOH	Ministry of Health
MUFA	Monounsaturated Fatty Acids
PUFA	Polyunsaturated Fatty Acids
RDA	Recommended Dietary Allowances
RDI	Recommended Dietary Intakes
RTE	Ready-to-eat
SBP	School Breakfast Programme
SES	Socioeconomic status
SFA	Saturated Fatty Acids
UK	United Kingdom
US	United States
USDA	United States Department of Agriculture
WHO	World Health Organization
WRAT	Wide Range Achievement Test