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The nutritional contribution of dairy intakes to the diets of Irish adolescents: based on data from the National Teens' Food Survey II

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Dairy foods offer essential nutrients and bioactive compounds crucial for growth and development[(1)], as such they are an important component of a balanced diet. However, despite their benefits, the consumption of dairy has declined in recent years, especially among adolescents[(2–4)]. In this regard, this study aims to evaluate the nutritional contribution of dairy intakes to the diets of adolescents in Ireland.

Analyses were based on data from the nationally representative National Teens' Food Survey II (NTFS II; 2019-2020) in Ireland (www.iuna.net) ($n = 428$; 13-18yrs, 50% female). Food and beverage intake data were collected using a four-day weighed food diary. Dairy intake was classified as the intake of milk, yogurt and cheese and calcium fortified non-dairy alternatives in line with the Irish food based dietary guidelines. Whole foods that contain milk, cheese and yogurt and any relevant dairy components of composite dishes were included in the estimation of dairy intakes. Diet quality was assessed using the Diet Quality Index for Adolescents[(5)]. Descriptive statistics and covariateadjusted univariate general linear models were used to analyse dietary intakes. Trend analysis was conducted to identify patterns in nutrient intakes and anthropometric measurements across tertiles of dairy intake.

Overall, 98% of Irish adolescents consumed dairy products and the mean daily total dairy intake was 245 ± 227 g/d, with males having higher intakes per day compared to females (319 ± 272g/d vs 171 ± 152g/d respectively). The average daily servings of dairy were 1.9 servings/d, with only 4% of teenagers achieving the recommended intake of 5 servings of dairy per day. Dairy contributed to the majority of nutrients investigated and was a high contributor to intakes of micronutrients calcium (36%), vitamin B12 (31%) and iodine (49%). Higher consumers of dairy had significantly greater mean daily intakes of protein, total sugar, saturated fat, trans fat, folate, vitamin B12, calcium, iodine, magnesium, potassium, and phosphorus compared to those in the lowest tertile of dairy intake ($p < 0.001$). Higher consumers of dairy also had an overall higher diet quality compared to low consumers (48.0 versus 39.4%; $p < 0.001$). No differences were noted in body weight, body mass index, percentage body fat or waist and hip circumference across tertiles of dairy consumption.

In summary, while almost all Irish adolescents consumed dairy, only 4% achieved the recommended 5 servings of dairy per day. In those consuming higher amounts of dairy, a significantly higher diet quality was observed. While this study offers valuable insights into adolescents' intake of dairy products, its cross-sectional nature highlights the need for continued monitoring of dairy consumption patterns and nutrient intakes in this population, particularly due to the observed decline in dairy consumption noted in this age group across Europe.

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