

Consumption of sugars and comparisons of nutrient intakes and major sugars-containing foods among Canadian adults using the Canadian Community Health Survey 2015 Data

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Introduction: Global dietary guidelines recommend reducing free sugars intake, which may affect Canadians' choices of sugars-containing foods, including those that are nutrient-dense and good sources of fibre, calcium and/or vitamin D.

Objectives: The aim was to assess the intakes of macronutrients, micronutrients and sugars-containing food categories across the spectrum of sugars consumption in Canadian adults.

Methods: The first day 24-hour recall from the nationally representative 2015 Canadian Community Health Survey (CCHS)-Nutrition Public Use Microdata File for adults ≥ 19 years ($n=11,817$) was analyzed. The intakes of added sugars and free sugars were estimated using the previously published 10-step algorithm by Louie et al. 2015. Intakes of macronutrients, micronutrients and food categories were compared across quintiles of total sugars intake [by %E (energy)] using ANOVA with post-hoc Bonferroni adjustment for multiple comparisons, adjusted for misreporting status and covariates. Sample weights and bootstrapping were applied to ensure national representation.

Results: Canadian adults consumed on average 86.9g/d (18.8%E) from total sugars, 47.5g/d (9.9%E) from free sugars. The mean intakes for the 1st (Q1), 3rd (Q3), and 5th (Q5) quintiles of total sugars were 7.9 %E, 19.0 %E and 33.0 %E, respectively. In the fully adjusted model, Q3 had higher fibre, calcium, vitamin D, vitamin A, vitamin C and potassium intakes than Q1 ($p < 0.001$), reflecting higher fruit, milk and yogurt ($p < 0.001$) consumption. Compared to Q5, Q3 had higher intakes of folate, vitamin B₁₂, iron, phosphorus, and zinc.

Conclusions: Canadians with moderate intakes of total sugars tended to have higher fibre and overall better micronutrient intake compared to those with very low or very high intakes of total sugars.

Significance: These data are important to be considered by dietitians and policy makers when providing dietary guidance to the public.

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