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Beverage consumption in school-aged children (5–12y) in Ireland

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Recent studies have shown that 16% of school-aged children in Ireland are classified as overweight or obese[(1)] and sugar sweetened beverage (SSB) consumption has been associated with overweight/obesity in children[(2)]. Based on the evidence of free sugars being a risk factor for dental caries and obesity, it is recommended that individuals reduce their intake of free sugars to <10% total energy (including that from SSBs and other sugar-containing beverages)[(3)]. Consequently, food based dietary guidelines (FBDG) recommend water and milk as the preferred beverages for consumption. The aim of this study was to examine the types of beverages consumed by school-aged children in Ireland and to determine the contribution of beverages to intakes of energy, carbohydrate and sugars.

Analyses were based on the National Children's Food Survey II (NCFS II) (2017–18). A 4-day weighed food record was used to collect food and beverage intake data from 600 children (5–12y). Nutrient intakes were estimated using Nutritics© based on UK and Irish food composition data. Mean daily intakes (MDI) of beverages were calculated using SPSS V26 and the contribution of beverages to energy, carbohydrate, total and free sugar intakes were calculated by the mean proportion method[(4)].

Beverages were consumed by 100% of children with 95% consuming water as a beverage, 58% consuming milk as a beverage, 67% consuming soft drinks (no added sugar: 40%, added sugar:47%), 41% consuming fruit juice, 12% consuming smoothies, 19% consuming sweetened milk drinks (e.g. hot chocolate/milkshakes), 19% consuming tea and 1% consuming coffee. The MDI of beverages in the total population was 794g/d comprised of 450g of water, 91g of milk, 160g of soft drinks (no added sugar:110g, added sugar: 50g), 38g of fruit juice, 11g of smoothies, 16g of sweetened milk drinks, 28g of tea and 1g of coffee. Beverages contributed 7% of energy intake (3% from milk as a beverage, 1% from 'fruit juices & smoothies' 1% from soft drinks and <1% from sweetened milk drinks). Beverages contributed 8% of carbohydrate intake (3% from 'fruit juices & smoothies', 2% from milk as a beverage, 2% from soft drinks and 1% from sweetened milk drinks) and 19% of total sugar intake (6% from 'fruit juices & smoothies', 6% from milk as a beverage, 5% from soft drinks and 2% from sweetened milk drinks,). Beverages contributed 24% of free sugar intakes (12% from soft drinks, 10% from 'fruit juices & smoothies' and 2% from sweetened milk drinks).

This study has shown that water and milk are commonly consumed by school-aged children in line with FBDG however children are also consuming 'fruit juices & smoothies' and soft drinks with added sugar which contribute significant proportions of free sugar intake in this population group.

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