

Chocolate Milk is a Healthy and Nutritious Choice for Children and Youth

Chocolate milk is naturally nutrient-rich and contains the same 16 essential nutrients as white milk.

- Both white and chocolate milk include key bone-building nutrients such as calcium, phosphorus, magnesium, protein, vitamin A and vitamin D.
- Childhood and adolescence are key bone-building years where these nutrients are crucial, as 90 per cent of bone mass is built by 20 years of age.¹

Chocolate milk can help children and youth consume the recommended servings of milk and alternatives from Canada's Food Guide every day.

- Many children and youth are missing out on the essential nutrients found in milk.
- Data from the 2004 Canadian Community Health Survey showed that more than one third of children aged four to nine did not meet [Canada's Food Guide](#) minimum recommended two daily servings of milk products.²
- By the time children reached ages 10-16, 61% of boys and 83% of girls did not meet Canada's Food Guide's minimum recommended three daily servings of milk products.²
- Chocolate milk may be an option to help children and adolescents meet their minimum recommended servings of milk and alternatives and consume adequate amounts of essential nutrients like calcium.

Chocolate milk is not a major source of added sugar in children's diets.

- Not all of the sugar in chocolate milk comes from added sugar. One cup of milk (250 ml) contains 12 grams of lactose, a naturally occurring sugar. The remainder of the sugar in milk is considered added sugar. Check the label as not all brands have the same amount of added sugar.
- The conclusions from the 2009 scientific statement from the American Heart Association were that "when sugars are added to otherwise nutrient-rich foods, such as sugar-sweetened dairy products like flavoured milk and yogurts and sugar sweetened cereal, the quality of children's and adolescents' diet improves, and in the case of flavoured milks, no adverse effects on weight status were found. However, deleterious health effects may occur when sugars are consumed in large amounts."³
- A recent article in the Journal of the American Dietetic Association contained the following quote: "The data say that soda is the number one contributor of [added] sugar in children's diets, yet flavoured milks, which are often the nutritional scapegoat, don't even make the list of the top five sources."⁴

Table 1: Contribution of various foods to total added sugar intake among U.S. children and adolescents. Adapted from the National Cancer Institute.⁵

| Rank | Food Source of Added Sugar | Contribution to Total Added Sugar Intake |
|------|----------------------------|------------------------------------------|
| 1 | Soda/energy/sports drinks | 32% |
| 2 | Fruit drinks | 15% |
| 3 | Grain-based desserts | 11% |
| 4 | Dairy desserts | 8% |
| 5 | Candy | 7% |
| 6 | Ready-to-eat cereals | 6% |

Children who drink chocolate milk have higher total milk intake, better overall diet quality and are not heavier compared to non-milk drinkers.

- In a study by Johnson et al., the beverage choices of 3,888 children ages 5 to 17 from the 1994-1996 and 1998 U.S. Department of Agriculture Continuing Survey of Food Intakes by Individuals (CSFII) were assessed using 24 hour dietary recalls.⁶
 - Children who consumed flavoured milk had higher total milk intake and lower soft drink and fruit drink consumption than children who did not drink flavoured milk; however their intake of fruit juice was similar.⁶
 - Flavoured milk intake was positively associated with energy-adjusted calcium and phosphorus intakes.⁶
 - No association between flavoured milk intake and percent energy for total fat and added sugars were found.⁶
- A study by Murphy et al. used 1999 to 2002 NHANES data to compare the nutrient intakes and body mass index (BMI) of 7,557 children and adolescents using 24 hour recalls.⁷ Subjects were classified as flavoured milk drinkers (those who drink both plain and flavoured milk), exclusively plain milk drinkers or milk non-drinkers.⁷
 - Flavoured milk drinkers had significantly higher total milk intakes compared to exclusively plain milk drinkers.⁷
 - Intakes of calcium, phosphorus, magnesium, potassium and vitamin A were significantly higher among flavoured milk and plain milk drinkers compared to milk non-drinkers when adjusted for energy intake and age.⁷
 - Added sugar intakes were similar between flavoured milk drinkers and milk non-drinkers.⁷
 - BMI measures of flavoured milk and plain milk drinkers were comparable to or lower than BMI measures of milk non-drinkers.⁷

For thought-provoking reading on the value of chocolate milk, check out the following blog post by Dayle Hayes, MD, RD: [The Flavored Milk Wars: Is a Tempest in a Milk Carton Good For Kids Nutrition?](#)

References

1. Stransky M, Rysava L. Nutrition as prevention and treatment of osteoporosis. *Physiol Res* [Internet]. 2009 [cited 2011 Dec 12];58(Suppl.1):S7-S11. Available from: <http://www.hakimanteb.com/s4/article/calcium.pdf>
2. Garriguet D. Nutrition: findings from the Canadian Community Health Survey: overview of Canadians' eating habits. 2004 [cited 2011 Dec 12]. Available from: <http://publications.gc.ca/collections/Collection/Statcan/82-620-M/82-620-MIE2006002.pdf>
3. Johnson RK, Appel LJ, Brands M, Howard BV, Lefevre M, Lustig RH, et al. Dietary sugars intake and cardiovascular health: a scientific statement from the American Heart Association. *Circulation* [Internet]. 2009 [cited 2011 Dec 12];120:1011-1020. Available from: <http://circ.ahajournals.org/content/120/11/1011.full.pdf+html>
4. American Dietetic Association. The state of family nutrition and physical activity: are we making progress? 2011 [cited 2011 Dec 12]. Available from: <http://download.journals.elsevierhealth.com/pdfs/journals/0002-8223/PIIS0002822311003440.pdf>
5. National Cancer Institute. Risk factor monitoring and methods: table 4a. mean intake of added sugar & percentage contribution (kcal) of various foods among US children & adolescents, by race/ethnicity & family income, NHANES 2005-06. 2010 [cited 2011 Dec 12]. Available from: http://riskfactor.cancer.gov/diet/foodsources/added_sugars/table4a.html
6. Johnson RK, Frary C, Wang MQ. The nutritional consequences of flavored-milk consumption by school-aged children and adolescents in the United States. *J Am Diet Assoc*. 2002;102(6):853-856.
7. Murphy MM, Douglass JS, Johnson RK, Spence LA. Drinking flavored or plain milk is positively associated with nutrient intake and is not associated with adverse effects on weight status in US children and adolescents. *J Am Diet Assoc*. 2008;108(4):631-639.