

Adding Chocolate to Milk Doesn't Take Away Its Nine Essential Nutrients

All milk contains a unique combination of nutrients important for growth and development. Milk is the #1 food source of three of the four nutrients of concern identified by the 2010 Dietary Guidelines for Americans: calcium, vitamin D and potassium. And flavored milk contributes only 3% of added sugars in the diets of children 2-18 years.

5 Reasons Why Flavored Milk Matters

1 KIDS LOVE THE TASTE!

Milk provides nutrients essential for good health and kids drink more when it's flavored.

2 NINE ESSENTIAL NUTRIENTS!

Flavored milk contains the same nine essential nutrients as white milk - calcium, potassium, phosphorus, protein, vitamins A, D and B₁₂, riboflavin and niacin (niacin equivalents) – and is a healthful alternative to soft drinks.

3 HELPS KIDS ACHIEVE 3 SERVINGS!

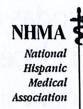
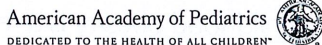
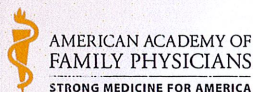
Drinking low-fat or fat-free white or flavored milk helps kids get the 3 daily servings* of milk and milk products recommended by the *Dietary Guidelines for Americans*.

4 BETTER DIET QUALITY!

Children who drink flavored milk meet more of their nutrient needs; do not consume more added sugar or total fat; and are not heavier than non-milk drinkers.

5 TOP CHOICE IN SCHOOLS!

Low-fat chocolate milk is the most popular milk choice in schools and kids drink less milk (and get fewer nutrients) if it's taken away.



www.nationaldairycouncil.org/childnutrition

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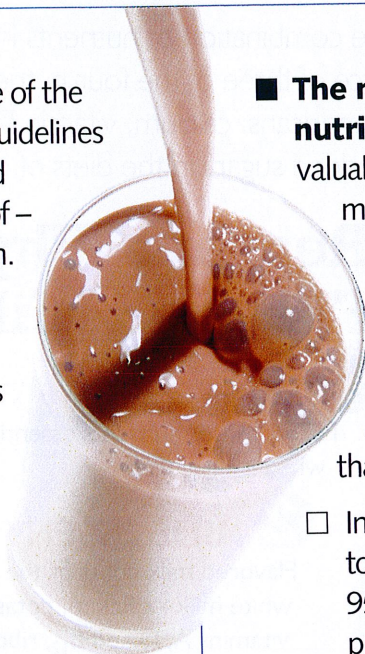
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2. Johnson RK, Frary C, Wang MQ. The nutritional consequences of flavored milk consumption by school-aged children and adolescents in the United States. *J Am Diet Assoc.* 2002; 102: 853-856.
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7. American Academy of Pediatrics, Committee on School Health. Soft drinks in schools. *Pediatrics.* 2005; 113: 152-154.
8. U.S. Department of Health and Human Services and U.S. Department of Agriculture. *Dietary Guidelines for Americans, 2010*. 7th Edition, Washington DC: U.S. Government Printing Office, December 2010.
9. Greer FR, Krebs NF and the Committee on Nutrition. Optimizing bone health and calcium intakes of infants, children and adolescents. *Pediatrics.* 2006; 117: 578-585.
10. Murphy MM, Douglas JS, Johnson RK, et al. Drinking flavored or plain milk is positively associated with nutrient intake and is not associated with adverse effects on weight status in U.S. children and adolescents. *J Am Diet Assoc.* 2008; 108: 631-639.
11. Johnson RK, Appel LJ, Brands M, et al. Dietary Sugars Intake and Cardiovascular Health. A Scientific Statement From the American Heart Association. *Circulation.* 2009; 120: 1011-1020.
12. 2010-2011 Annual School Channel Survey, Prime Consulting Group, May 2011.
13. Patterson J, Saidel M. The Removal of Flavored Milk in Schools Results in a Reduction in Total Milk Purchases in All Grades, K-12. *J Am Diet Assoc.* 2009; 109: A97.

*DAILY RECOMMENDATIONS – The 2010 Dietary Guidelines for Americans recommends 3 daily servings of low-fat or fat-free milk and milk products for those 9 years and older, 2.5 for those 4-8 years, and 2 for those 2-3 years.

JUST THE FACTS: FLAVORED MILK

- Milk is the #1 food source of three of the four nutrients the 2010 Dietary Guidelines for Americans say both adults and children need to consume more of – vitamin D, calcium and potassium.
- It's important to offer a variety of choices to ensure kids have more opportunities to get the nutrients found in milk, versus choosing drinks with no nutritional value.
 - Milk, including flavored milk, is packed with nine essential nutrients that are important for kids' growth and development.
 - A study showed eliminating flavored milk from elementary schools resulted in a dramatic drop in milk consumption (35%).
 - Whenever you decrease the intake of ANY nutrient-dense food, you must think about the negative consequences of taking away vital nutrients from children that help fill important nutrient gaps.
 - Research shows that flavored milk, which delivers nine essential nutrients, contributes just 3% of added sugars to kids' diets versus sodas and fruit drinks, which account for close to half of the added sugar and deliver much less, if any nutritional value.
 - There are far better ways to trim calories and added sugars from school meals than removing flavored milk, which makes so many key contributions to a child's diet.



- **The nation's leading health and nutrition organizations** recognize the valuable role that milk, including flavored milk, can play in meeting daily nutrient needs.
 - The industry is proud to offer great-tasting, kid-approved flavored milk that's lower in fat, contains less added sugar and has fewer calories than ever before.
 - In fact, the majority of milk in schools today is already low-fat or fat-free, and 95 percent of flavored milk in schools is projected to be at or below 150 calories for the 2011-12 school year.
 - On average, the flavored milk offered in schools today contains just 39 calories more than white milk.
 - And, dairy companies have worked with schools to reduce the amount of added sugar by an average of 30% in the last five years alone.
- Studies show that school-aged children who drink flavored milk actually drink more milk overall, have better quality diets, do not have higher intakes of added sugar or total fat, and are just as likely to be at a healthy weight compared to kids who do not consume flavored milk.
- Childhood obesity is a real serious problem, one that cannot be solved by removing a single food, but only by understanding the greater need to provide kids with healthy, balanced meals and opportunities for daily physical activity.

STUDIES AND REFERENCES REGARDING FLAVORED MILK

1 West Virginia University's Heath Research Center evaluated *Jamie Oliver's Food Revolution* efforts at Central City Elementary School. Average milk consumption rates were compared for two months before and after introduction of the Food Revolution menus, which included the removal of flavored milk.

- Milk consumption declined 25% daily and lunch participation declined from 75% to 66% on average.
- Overall, findings suggested new menus were not well-accepted and negatively impacted milk consumption and meal participation despite some identified benefits.

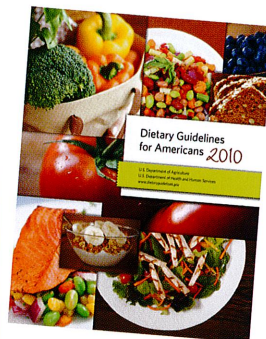
<http://www.hsc.wvu.edu/som/hrc/ECOCWV/PDF/OliverReportFinal.pdf>

2 Milk Matters is a public health education campaign by the *National Institutes of Health, Eunice Kennedy Shriver, National Institute of Child Health & Human Development (NICHD)* to promote calcium consumption among tweens and teens, especially during the ages of 11 to 15, a time of critical bone growth.

- In materials developed for parents, teachers, health professionals, and children and teens, the *Milk Matters* campaign recognizes flavored milk as a calcium-rich food source for increasing calcium consumption in young people when they need it most.



<http://www.nichd.nih.gov/milk/milk.cfm>



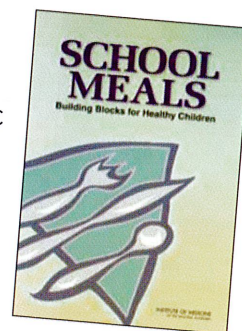
3 2010 Dietary Guidelines for Americans – Fat-free chocolate milk is listed as an example of a nutrient-dense food that contains some added sugars and the Dietary Guidelines did not explicitly include flavored

milk in its definition of sugar-sweetened beverages (Sugar-sweetened beverages – liquids that are sweetened with various forms of sugars that add calories. These beverages include, but are not limited to, soda, fruit ades and fruit drinks, and sports and energy drinks). Calories from solid fats and added sugars are best used to increase the palatability of nutrient-dense foods.

<http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

4 Although there aren't specific standards for flavored milk in the new proposed meal pattern, the *Institute of Medicine (IOM)* was contracted by the USDA to review the literature and make recommendations for the school feeding programs and separate recommendations for Competitive Foods.

- In the IOM School Meals report, the standards recommendation was "the milk must be fat-free (plain or flavored) or plain low-fat."



<http://www.iom.edu/~media/Files/Report%20Files/2009/School-Meals/School%20Meals%202009%2020Report%20Brief.pdf>

Continued ►

STUDIES AND REFERENCES REGARDING FLAVORED MILK

Continued

- 5 The **American Academy of Pediatrics**, in a policy statement discouraging soft drinks in schools and in its report on optimizing children's and adolescents' bone health and calcium intakes, encourages consumption of nutritious beverages including low-fat or fat-free flavored milk with modest amounts of added sweeteners.

<http://aappolicy.aappublications.org/cgi/reprint/pediatrics;117/2/578.pdf>

<http://aappolicy.aappublications.org/cgi/content/full/pediatrics;113/1/152>



- 6 In a 2004 study conducted by the **Center for Food and Nutrition Policy**, Virginia Tech, Alexandria, VA, associations between beverage choices and total calcium intake in children and adolescents were examined. Optimizing calcium intake along with the proper balance with other key nutrients for bone health is particularly critical for pre-adolescent and adolescent girls.

- The authors concluded that policies should be considered to help adolescent girls increase calcium intake, including making low-fat flavored milks available.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/14963050>

Article: <http://www.jacn.org/cgi/reprint/23/1/18>

For additional resources, check out:

- National Dairy Council – <http://www.nationaldairycouncil.org/milkinschools>
- MilkPEP – <http://www.milkdelivers.org>
- School Nutrition Association – <http://www.traytalk.org>

Why Flavored Milk is Important for Student Nutrition

ONE OF THE MOST NUTRIENT-RICH BEVERAGES AVAILABLE IN SCHOOLS

There's a nutrient powerhouse in a variety of flavors that today's kids love. That beverage is milk, delivering 9 essential nutrients, including some that are lacking in children's diets today. Lowfat milk is an **excellent source of calcium, vitamin D, riboflavin and phosphorus**, and a good source of protein, potassium, vitamin A, vitamin B12 and niacin. With flavored milk you get all that nutrition plus the taste-appeal kids go for again and again.



KIDS ARE MISSING IMPORTANT NUTRIENTS

There is a nutrient gap in America, because many of our families are filling up on empty calories instead of essential nutrients. In fact, more than 9 out of 10 Americans aren't getting the essential nutrients they need. The nutrients in milk can help fill that gap. **Milk is a top source of calcium, vitamin D, potassium and phosphorus** in the American diet.¹ And flavored milk offers the same nine essential nutrients as white milk. But with water, juices and nutrient-void sodas on the shelves,

kids might not be drinking as much milk as you think. In fact, recent research suggests that **only kids ages 1-3 are actually meeting their recommended daily servings.**² Plus:

- * 9 out of 10 teen girls and 7 out of 10 teen boys don't get the calcium they need³
- * 7 out of 10 teen girls fall short in vitamin D intake⁴
- * 97% of Americans don't get the potassium they need³

An 8-ounce serving of milk, flavored or not, gives kids as much...

* Vitamin A
as two hard
boiled eggs

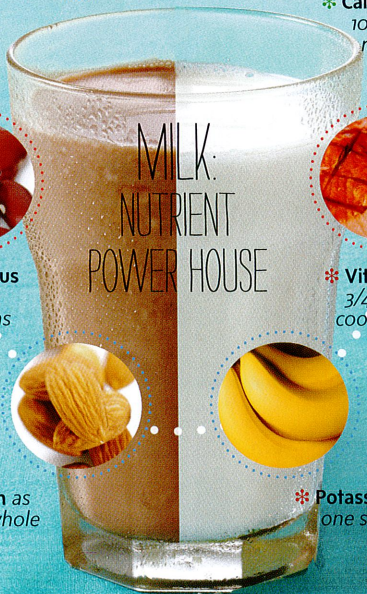
* Calcium as
10 cups of
raw spinach

* Phosphorus
as 1 cup of
kidney beans

* Vitamin D as
3/4 ounce of
cooked salmon

* Riboflavin as
1/3 cup of whole
almonds

* Potassium as
one small banana



*USDA National Nutrient Database for Standard Reference, Release 23. Nutrients included are either a good/excellent source in one 8-ounce serving of lowfat milk and lowfat flavored milk, and/or nutrients lacking in America's diets.

FLAVORS HELP PREVENT THE SWITCH

As children move into adolescence their milk intake often decreases while their soft drink consumption doubles. Flavored milk is a good strategy for preventing the change.



1. Fulgoni VL, et al. *FASEB J.* 2010;24:325.1. 2. Kranz S, et al. *J Pediatr.* 2007;151:646-646.
3. Moshfegh A, et al. U.S. Department of Agriculture, Agricultural Research Service. 2005.
4. Bailey RL, et al. *J of Nutr.* 2010;140: 817-822.

Flavored Milk Combines Taste and Nutrition

FOR NUTRITION, OTHER BEVERAGES DON'T EVEN COME CLOSE*



*Serving Size = 8 Fluid Oz. Provides 10% or more of the Daily Value per serving. USDA Nutrient Database for Standard Reference, Release 23. Nutrients considered included: Calcium, protein, vitamin C, iron, potassium, vitamin A, vitamin D, riboflavin, niacin, vitamin B12 and phosphorus.

STUDENTS FAVOR FLAVORED MILK

Lowfat flavored milk helps students make a nutritious beverage choice. Data show that students choose flavored milk 70% of the time. One recent industry study showed **that when schools removed or limited flavored milk options, milk consumption dropped a dramatic 35%, on average.** The findings suggest that the resulting drop in milk consumption equates to a substantial loss in nutrients that can't be replaced by another beverage. It requires three to four food items to match milk's nutrient contribution and adds back more calories and fat than were being reduced.⁵



THE EXPERTS' OPINION

The nation's leading health and nutrition organizations and the Dietary Guidelines for Americans recognize the valuable role that milk, including flavored milk, can play in meeting daily nutrient needs. In addition, **they recognize the small amount of added sugars in flavored milk is an acceptable trade-off for the nutrients provided.**

5. 2009 Study "The Impact on Student Milk Consumption and Nutrient Intakes from Eliminating Flavored Milk in Schools," funded by the Milk Processor Education Program (MilkPEP) and presented at the School Nutrition Association Annual National Conference 2010. 6. NHANES (2003-2006), Ages 2-18 years. 7. Murphy MM, et al. J Am Diet Assoc. 2008;108: 631-639. 8. Johnson RK, et al. J Am Diet Assoc. 2002;102:853-856. 9. Harris Interactive Survey, January 2010.

THE REAL STORY ON SUGARS

Flavored milk contributes just 3% of added sugars to kids' diets. Sodas and fruit drinks, on the other hand, account for close to half of the added sugar, delivering much less, if any nutrition in the process.⁶ And best of all? Studies show that children who drink flavored milk meet more of their nutrient needs and do not consume more added sugars or fat than non-milk drinkers.^{7,8}

Surprisingly, if kids skip a serving of milk at school,

they're **not** likely to replace it at home. A recent survey conducted among 1,505 moms of kids between the ages of 1-18 found that only 29% reported serving milk to their children at dinner.⁹



To **download a PDF of this flyer**, and see the research that supports flavored milk as an important source of nutrition in a student's diet, visit milkdelivers.org/resources.

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MilkPEP®
Milk Processor Education Program

THEY'RE CALLED **ESSENTIAL** FOR A REASON.



- ① Calcium
- ② Vitamin D
- ③ Phosphorus
- ④ Riboflavin
- ⑤ Protein
- ⑥ Vitamin B-12
- ⑦ Potassium
- ⑧ Vitamin A
- ⑨ Niacin

Calcium 300 mg, 30% DV

Helps build and maintain strong bones and teeth. It helps reduce the risk of stress fractures and osteoporosis later in life. Plays a role in promoting normal blood pressure.

Vitamin D 100 IU, 25% DV

Helps absorb calcium for healthy bones.

Phosphorus 245 mg, 20% DV

Works with calcium and vitamin D to help keep bones strong.

Riboflavin 0.46 mg, 20% DV

Helps convert food into energy. Plays a vital role in the development of the central nervous system.

Protein 8 g, 16% DV

Helps build and maintain lean muscle. Contains all the essential amino acids (the building blocks for protein).

Vitamin B-12 1.2 mcg, 13% DV

Helps build red blood cells and helps maintain the central nervous system.

Potassium 370 mg, 11% DV

Helps regulate the balance of fluids in the body and plays a role in maintaining a normal blood pressure.

Vitamin A 490 IU, 10% DV

Important for good vision, healthy skin, and a healthy immune system.

Niacin 2 mg, 10% DV*

Helps the body's enzymes function normally by converting nutrients into energy.

**Milk's nine essential nutrients can help kids and
teens grow healthy and strong.**

% Daily Values are based on a 2,000 calorie diet.

*As niacin equivalents

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MilkPEP
Milk Processor Education Program

RETHINK YOUR DRINK.

For **NUTRITION**, other beverages don't even come close.



% Daily Value	
Calcium	30
Vitamin D	25
Phosphorus	20
Riboflavin	20
Protein	16
Vitamin B-12	13
Potassium	11
Vitamin A	10
Niacin	10
Vitamin C	4

Sugar **12 g**

Calories 85

Serving Size = 8 ounces



% Daily Value	
Calcium	30
Vitamin D	25
Phosphorus	20
Riboflavin	20
Protein	16
Vitamin B-12	13
Potassium	11
Vitamin A	10
Niacin	10
Vitamin C	4

Sugar **24 g**

(Includes 2.8 tsp added sugar)

Calories 135

Serving Size = 8 ounces

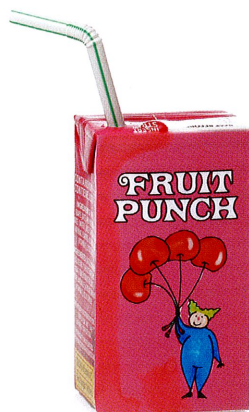


% Daily Value	
Calcium	2
Vitamin D	0
Phosphorus	4
Riboflavin	6
Protein	2
Vitamin B-12	0
Potassium	12
Vitamin A	0
Niacin	2
Vitamin C	140

Sugar **21 g**

Calories 120

Serving Size = 8 ounces



% Daily Value	
Calcium	2
Vitamin D	0
Phosphorus	0
Riboflavin	2
Protein	0
Vitamin B-12	0
Potassium	2
Vitamin A	0
Niacin	0
Vitamin C	2

Sugar **28 g**

(Includes 6.7 tsp added sugar)

Calories 120

Serving Size = 8 ounces



% Daily Value	
Calcium	0
Vitamin D	0
Phosphorus	10
Riboflavin	0
Protein	0
Vitamin B-12	0
Potassium	2
Vitamin A	0
Niacin	0
Vitamin C	0

Sugar **32 g**

(Includes 7.6 tsp added sugar)

Calories 130

Serving Size = 12 ounces



% Daily Value	
Calcium	0
Vitamin D	0
Phosphorus	0
Riboflavin	0
Protein	0
Vitamin B-12	0
Potassium	0
Vitamin A	0
Niacin	0
Vitamin C	0

Sugar **0 g**

Calories 0

Serving Size = 8 ounces



% Daily Value	
Calcium	0
Vitamin D	0
Phosphorus	0
Riboflavin	0
Protein	0
Vitamin B-12	80
Potassium	2
Vitamin A	0
Niacin	30
Vitamin C	2

Sugar **22 g**

(Includes 5.3 tsp added sugar)

Calories 120

Serving Size = 12 ounces



% Daily Value	
Calcium	0
Vitamin D	0
Phosphorus	4
Riboflavin	0
Protein	0
Vitamin B-12	0
Potassium	0
Vitamin A	0
Niacin	0
Vitamin C	0

Sugar **33 g**

(Includes 7.9 tsp added sugar)

Calories 140

Serving Size = 12 ounces



% Daily Value	
Calcium	0
Vitamin D	0
Phosphorus	4
Riboflavin	0
Protein	0
Vitamin B-12	0
Potassium	0
Vitamin A	0
Niacin	0
Vitamin C	0

Sugar **0 g**

Calories 0

Serving Size = 12 ounces