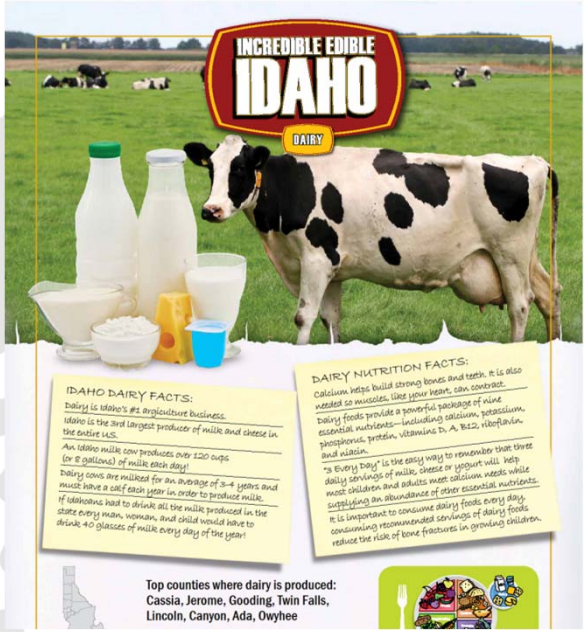
Why is Milk a Component of the Meal Pattern?



Jaclyn St. John MS, RDN, LD

Health & Wellness Manager

jstjohn@idahodairycouncil.org

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Objectives

- Recognize milk as an important component of the meal pattern
- Identify dairy's role in the 2010 Dietary Guidelines for Americans (DGA)
- Understand dairy's nutrient powerhouse

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Child Care Meal Pattern

Breakfast Select All Three Components for a Reimbursable Meal			
Food Components	***Ages 1-2***	***Ages 3-5***	***Ages 6-12***[1]
1 milk[2] fluid milk	1/2 cup	3/4 cup	1 cup
1 fruit/vegetable juice,[3] fruit and/or vegetable	1/4 cup	1/2 cup	1/2 cup
1 grains/bread[4] bread or cornbread or biscuit or roll or muffin or cold dry cereal or hot cooked cereal or pasta or noodles or grains	 1/2 slice 1/2 serving 1/4 cup 1/4 cup 1/4 cup	 1/2 slice 1/2 serving 1/3 cup 1/4 cup 1/4 cup	 1 slice 1 serving 3/4 cup 1/2 cup 1/2 cup

[1] Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.
[2] Milk served must be low-fat (1%) or non-fat (skim).
[3] Fruit or vegetable juice must be full-strength.
[4] Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.

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Child Care Meal Pattern

Lunch or Supper

Select All Four Components for a Reimbursable Meal

Food Components	*Ages 1-2*	*Ages 3-5*	*Ages 6-12*[1]
1 milk[2]			
fluid milk	1/2 cup	3/4 cup	1 cup
2 fruits/vegetables			
juice,[3] fruit and/or vegetable	1/4 cup	1/2 cup	3/4 cup
1 grains/bread[4]			
bread or	1/2 slice	1/2 slice	1 slice
cornbread or biscuit or roll or muffin or	1/2 serving	1/2 serving	1 serving
cold dry cereal or	1/4 cup	1/3 cup	3/4 cup
hot cooked cereal or	1/4 cup	1/4 cup	1/2 cup
pasta or noodles or grains	1/4 cup	1/4 cup	1/2 cup
1 meat/meat alternate			
meat or poultry or fish[5] or	1 oz.	1½oz.	2 oz.
alternate protein product or	1 oz.	1½ oz.	2 oz.
cheese or	1 oz.	1½ oz.	2 oz.
egg or	1/2	3/4	1
cooked dry beans or peas or	1/4 cup	3/8 cup	1/2 cup
peanut or other nut or seed butters or	2 Tbsp.	3 Tbsp.	4 Tbsp.
nuts and/or seeds[6] or	1/2 oz.	3/4 oz.	1 oz.
yogurt[7]	4 oz.	6 oz.	8 oz.

[1] Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.
[2] Milk served must be low-fat (1%) or non-fat (skim).
[3] Fruit or vegetable juice must be full-strength.
[4] Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.
[5] A serving consists of the edible portion of cooked lean meat or poultry or fish.
[6] Nuts and seeds may meet only one-half of the total meat/meat alternate serving and must be combined with another meat/meat alternate to fulfill the lunch or supper requirement.
[7] Yogurt may be plain or flavored, unsweetened or sweetened.

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Child Care Meal Pattern

Snack

Select Two of the Four Components for a Reimbursable Snack

Food Components	*Ages 1-2*	*Ages 3-5*	*Ages 6-12*[1]
1 milk[2] fluid milk	1/2 cup	1/2 cup	1 cup
1 fruit/vegetable juice,[3] fruit and/or vegetable	1/2 cup	1/2 cup	3/4 cup
1 grains/bread[4] bread or cornbread or biscuit or roll or muffin or cold dry cereal or hot cooked cereal or pasta or noodles or grains	 1/2 slice 1/2 serving 1/4 cup 1/4 cup 1/4 cup	 1/2 slice 1/2 serving 1/3 cup 1/4 cup 1/4 cup	 1 slice 1 serving 3/4 cup 1/2 cup 1/2 cup
1 meat/meat alternate meat or poultry or fish[5] or alternate protein product or cheese or egg[6] or cooked dry beans or peas or peanut or other nut or seed butters or nuts and/or seeds or yogurt[7]	 1/2 oz. 1/2 oz. 1/2 oz. 1/2 1/8 cup 1 Tbsp. 1/2 oz. 2 oz.	 1/2 oz. 1/2 oz. 1/2 oz. 1/2 1/8 cup 1 Tbsp. 1/2 oz. 2 oz.	 1 oz. 1 oz. 1 oz. 1/2 1/4 cup 2 Tbsp. 1 oz. 4 oz.

[1] Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.
[2] Milk served must be low-fat (1%) or non-fat (skim).
[3] Fruit or vegetable juice must be full-strength.
[4] Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.
[5] A serving consists of the edible portion of cooked lean meat or poultry or fish.
[6] One-half egg meets the required minimum amount (one ounce or less) of meat alternate.
[7] Yogurt may be plain or flavored, unsweetened or sweetened.

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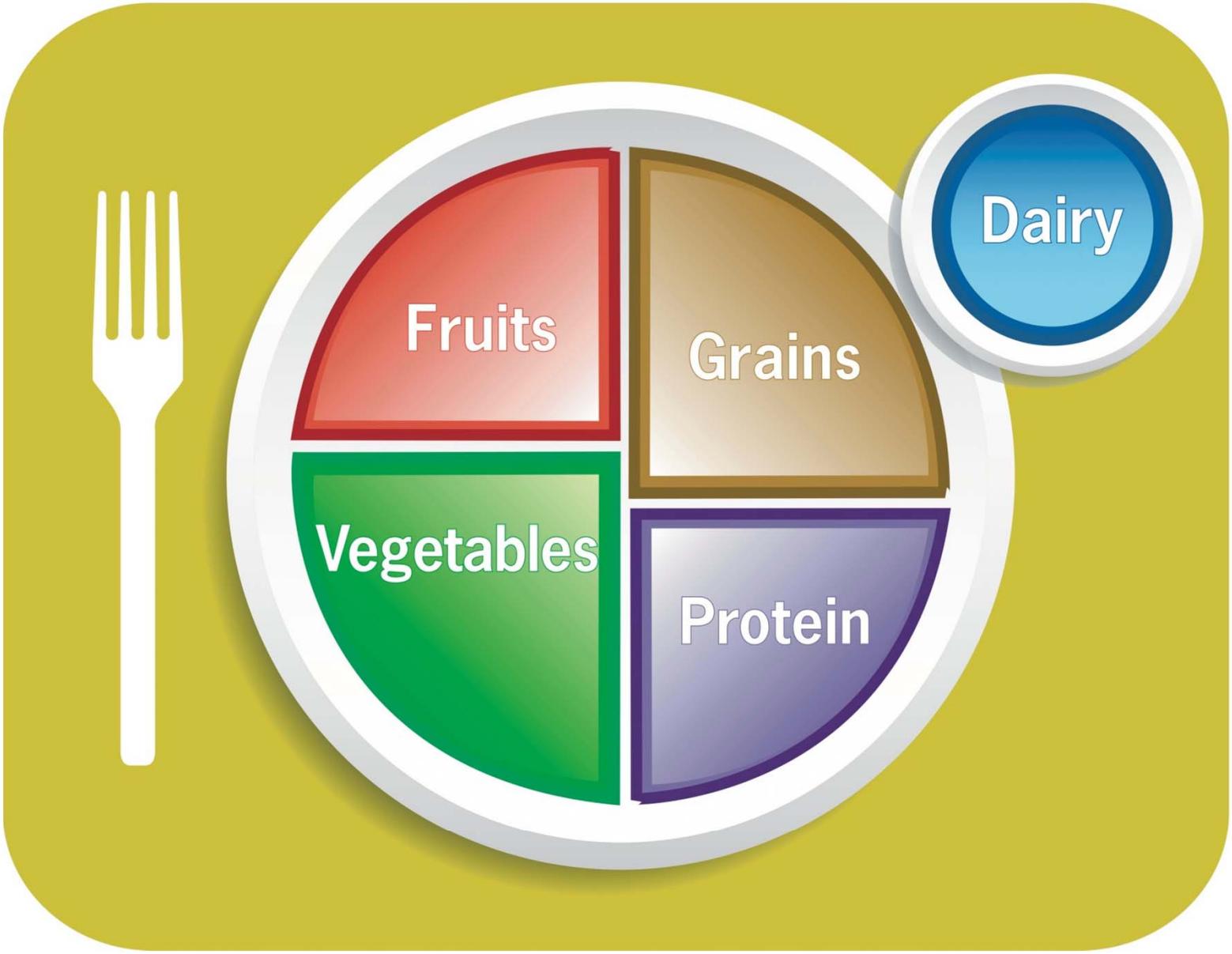

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Benefits of Good Nutrition

Supports life long health:

- **Protected against disease development**
- ***Maintain healthy BMI/ weight***
- **Grow and maintain strong bones/muscles**
- **Energy to be physically active**

Supports Academic Achievement:

- **Better attendance**
- **More alert in class**
- **Fewer behavior issues**
- **Higher test scores**
- **Higher resistance to infection**

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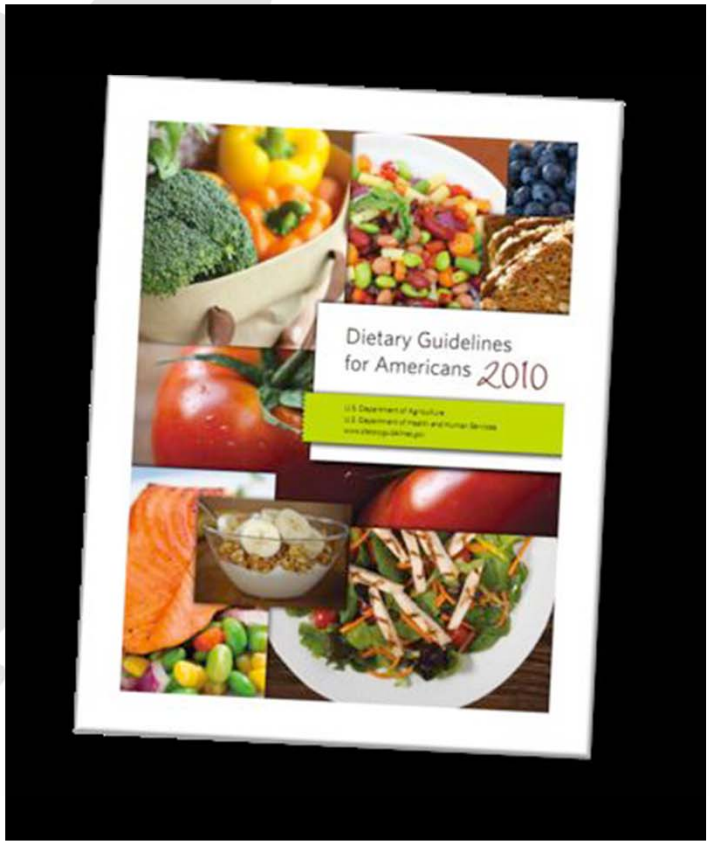
2010 Dietary Guidelines for Americans Recommend:

- Increasing ***daily*** intake of fat-free or low-fat dairy products
  - Kids 2-3y: 2 cups
  - Kids 4-8y: **2.5cups**
  - 9y and older: 3cups



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What is a serving?

- 8oz or 1 cup milk
- 1.5 oz natural cheese
- 2 oz processed cheese
- 8oz or 1 cup yogurt

2010 DGA Nutrients of Concern

- Calcium- milk is #1 source
- Potassium- milk is #1 source
- Vitamin D -milk is #1 source
- Dietary Fiber

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Dairy – Nutrient Powerhouse

- **Calcium** helps build and maintain strong bones and teeth.
- **Vitamin D** helps promote the absorption of calcium.
- **Protein** builds and repairs muscle tissue.
- **Potassium** regulates the body's fluid balance and helps maintain normal blood pressure and muscle activity.
- **Vitamin A** helps maintain normal skin and vision.

Dairy – Nutrient Powerhouse

- **Vitamin B12** helps build red blood cells that carry oxygen from the lungs to working muscles.
- **Riboflavin** helps convert food into energy.
- **Niacin** is important for the normal function of many enzymes in the body.
- **Phosphorus** helps strengthen bones and generates energy in your body's cells.

Nutrient	Amount of nutrients found in 3 cups of fat-free milk* (percent Daily Value*	Approx. amount of non-dairy food source to get about the same nutrient level*
Calcium	= 90%DV	30 cups raw spinach
Potassium	= 33%DV	3 small bananas
Phosphorus	= 74%DV	3 ¼ cups canned kidney beans
Protein	= 50%DV	½ chicken breast (95 g)
Vitamin A	= 30%DV	6 large hard boiled eggs
Vitamin D	= 86%DV	1.5 ounces canned salmon with bone
Vitamin B12	= 61%DV	4.5 ounces canned tuna
Riboflavin	= 79%DV	1 cup whole almonds
Magnesium	= 20%DV	½ cup cooked soybeans

Weaver et al, *AJCN*, 1994

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70% of girls and 60 % of boys ages 6-11 *do not* meet daily calcium needs

90% of teen girls and 70% of teen boys *do not* consume *3 servings* of dairy daily

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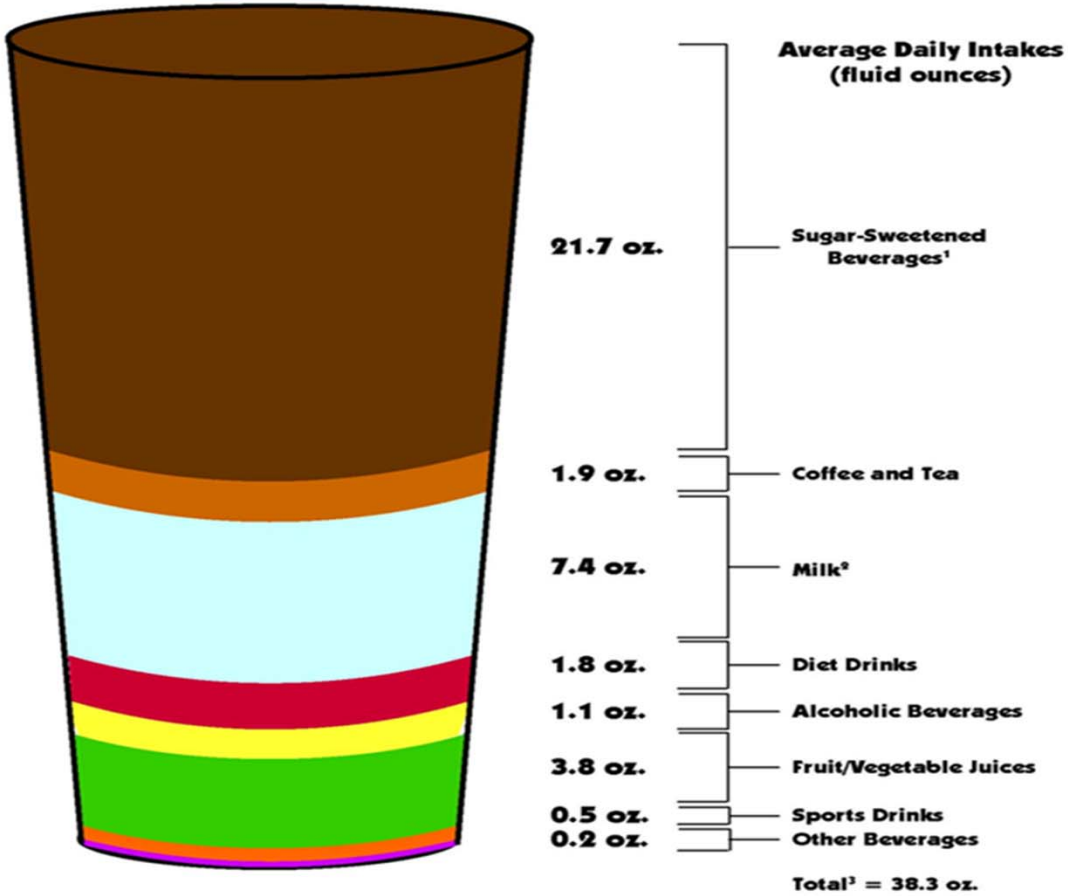
What Teenage Girls Drink



Per capita intakes for teenage girls ages 14-18. [1]Sweetened beverages includes regular soft drinks, fruit drinks, presweetened tea. [2]Milk includes plain milk, flavored milk, milk-based beverages. [3]Individual beverages may not add up to total due to rounding.

Based on the results of *What America Drinks*, a comprehensive analysis of U.S. beverage consumption conducted by ENVIRON International Corporation. The report analyzed data from more than 10,000 Americans ages 4 and older who participated in the government's National Health and Nutrition Examination Survey (NHANES) 1999-2000 and 2001-2002 and provided

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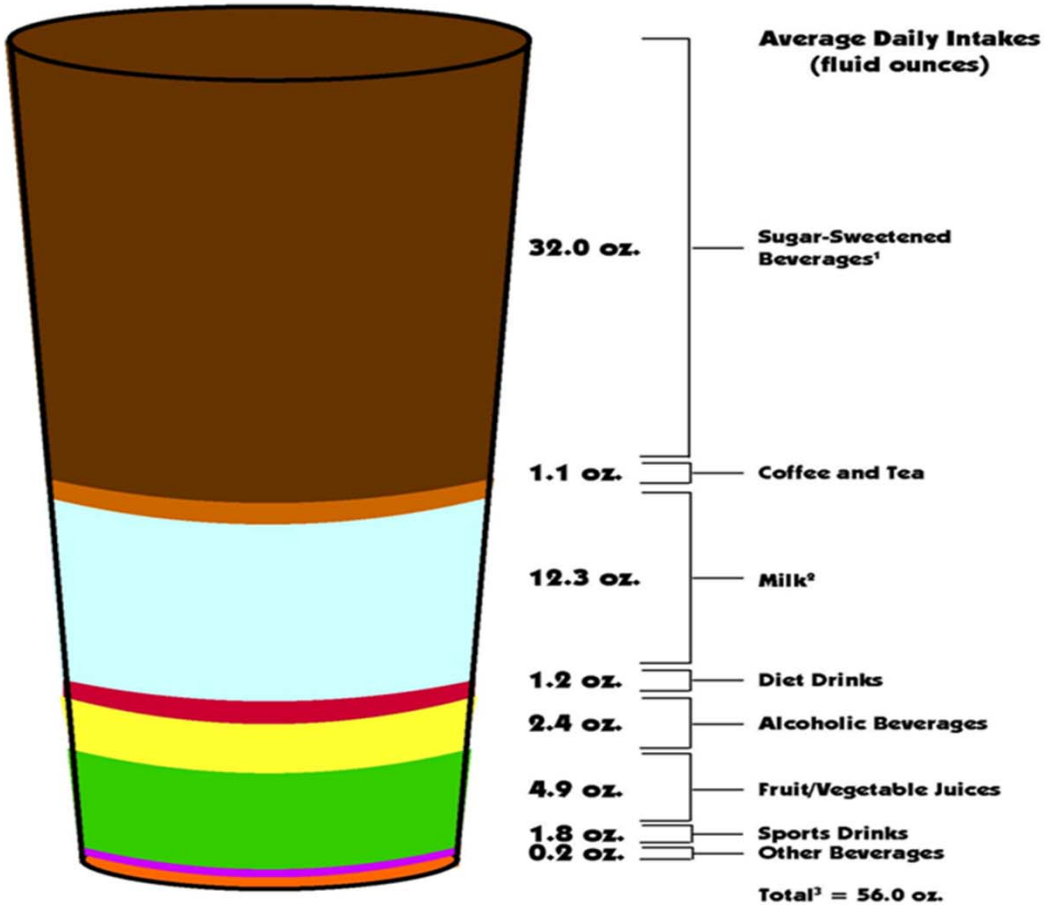
What Teenage Boys Drink



Per capita intakes for teenage boys ages 14-18. [1]Sweetened beverages includes regular soft drinks, fruit drinks, presweetened tea. [2]Milk includes plain milk, flavored milk, milk-based beverages. [3]Individual beverages may not add up to total due to rounding.

Based on the results of *What America Drinks*, a comprehensive analysis of U.S. beverage consumption conducted by ENVIRON International Corporation. The report analyzed data from more than 10,000 Americans ages 4 and older who participated in the government's National Health and Nutrition Examination Survey (NHANES) 1999-2000 and 2001-2002 and provided

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Flavored milk contains the same nine essential nutrients as white milk and is a healthful alternative to soft drinks.

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- Flavored milk makes up only 20-26% of a child's total milk intake. Kids ***do not*** neglect white milk when consuming flavored milk.

- Flavored milk contributes ***less than 3%*** of the total added sugar to the average teen's diet. Sodas and fruit drinks account for close to 50% of the added sugar in teens' diets.

- USDA requires:
  - Flavored milk must be fat-free
  - White milk must be 1% or fat-free

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Beverage	Nutrients	Calories	Added Sugar (g)
White/chocolate Milk 8 ounces	***Protein, Calcium, vit D, Potassium vit A, vit B12, riboflavin, niacin, phosphorus***	< 120	10 or fewer
Soda 12 ounces	None	~140	~39
100% Orange Juice 8 ounces	Vit C, Folate, Thiamin, Potassium	~110	0
Sports Drinks 12 ounce	Niacin, Vit B6, vit B12	~80	~19
Water	Hydration	0	0
Energy Drinks (Rock Star, Monster) 16 ounces	B vitamins	260, 200	66, 54

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Encourage Parental Role Modeling

Role Modeling is Key

- Children drink more milk when their parents drink milk.

Moms Need Calcium Too

- Women consume on average less than 1.5 servings of dairy foods a day.
- Only 15 percent of moms and young women (age 31-50) meet current calcium recommendations.

Adequate calcium intake by all members of the family is important.

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Nutrition Information & Resources

American Academy of Pediatrics

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Thank You

Questions?

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