

Background Information for the Educator

Facts on Calcium

A serving of
dairy =
1 cup milk
8 ounces yogurt
1.5-2 ounces
cheese
(the size of 4
dice or 1/3 cup
shredded)



Health Implications

Many teenagers and young adults are substituting soft drinks for milk in their diet. Teenage years are critical for consuming calcium and other nutrients, since most bone growth occurs during the ages 11 to 16.

- ▶ **85-90% of adult bone mass is acquired by age 18 in girls and age 20 in boys³**

A lack of calcium can set the stage for osteoporosis and bone fractures later in life. This is why osteoporosis is referred to as a *pediatric disease with adult consequences*.

³National Osteoporosis Foundation. Fast Facts. www.nor.org/node/40/Accessed March 29, 2012.

National Academy of Sciences Calcium Recommendations

Age in years	Calcium in mg/day
4-8	1,000
9-18	1,300
19-50	1,000
51-70, males	1,000
70 and older	1,200

According to the Dietary Guidelines, those 9 years and older should get 3 daily servings of fat-free or low-fat milk and milk products, while children ages 4 to 8 years need 2 1/2 cups per day, and those ages 2 to 3 years, 2 cups per day.

▶ Youth ages 9-18 need more calcium in order to reach peak bone density.

According to U.S. Department of Agriculture National Health and Nutrition Examination Survey (NHANES) data on Dietary Intake of Americans¹:

- Girls ages 9-18 years, women ages 51-70 and both men and women older than 70 years are falling below recommended intakes for calcium.
- 9 to 18 year olds average 2 servings of dairy daily while those 51 and older average 1.5 servings daily.
- Overall, females are less likely than males to meet calcium recommendations.

In general, Americans are consuming only half the recommended 3 servings of dairy foods daily (approximately 1.7 servings daily).

¹What We Eat in America, NHANES 2007-2008: Usual Nutrient Intakes from Food Compared to Dietary Reference Intakes.

Osteoporosis estimates²:

Affects 44 million Americans, or 55% of people age 50 and older. 80% are women.

Responsible for 2 million fractures each year.

National direct expenditure for osteoporosis and related fractures is \$19 billion each year.

That is over \$47 million each day.

²National Osteoporosis Foundation. *Fast Facts on Osteoporosis*. <http://www.nof.org>. 20012

Dairy for Health

Research indicates that 3 servings of dairy a day plays a role in **preventing chronic diseases** such as:

- ▶ Cardiovascular Disease
- ▶ Osteoporosis
- ▶ High blood pressure
- ▶ Type 2 Diabetes

Individuals that have been diagnosed with lactose intolerance should still *eat and drink nutrient-rich dairy foods*. Experts say they may be able to tolerate:

Lactose Intolerance

- * Up to 2 cups of milk per day, especially with food
- * Hard cheeses such as Cheddar, Swiss and Parmesan
- * Yogurt and drinkable yogurt
- * Flavored milk
- * Kefir

VITAMIN D is a key nutrient in enhancing calcium absorption.

Emerging research shows that a deficiency in vitamin D is associated with an increased risk of many serious conditions, such as: osteoporosis, cardiovascular disease, tooth and gum diseases, certain cancers, high blood pressure, and risk of falling.

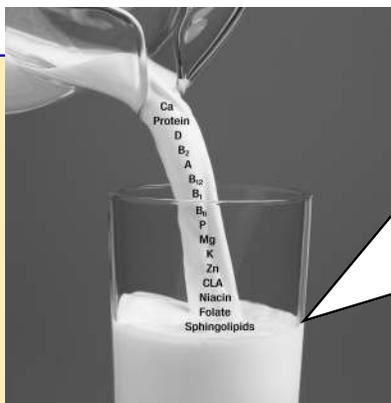
What are the **best sources of vitamin D**? The sun and **fortified milk**.

Milk and Milk Products

Researchers, including an expert panel convened by the National Institutes of Health (NIH), recommend *nutrient-rich milk and milk products* as the **preferred source of calcium**.

In addition to calcium, milk contains 8 other key nutrients, including:

- ◆ Potassium
- ◆ Phosphorus
- ◆ Protein
- ◆ Vitamin A
- ◆ Vitamin D
- ◆ Vitamin B12
- ◆ Riboflavin
- ◆ Niacin



Did you know?

Flavored milk is just as nutritious as white milk.

Studies show that 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.

⁴Murphy MM, Douglass JS, Johnson RK, et al. Drinking flavored or plain milk is positively associated with nutrient intake and is not associated with a adverse effects on weight stats in US children and adolescents. J Am Diet Assoc. 108:631-639,2008.