

# Background Information for the Educator

## Facts on Calcium



### National Academy of Science Calcium Recommendations:

| Age in years | Calcium in mg/day |
|--------------|-------------------|
| 4-8          | 800               |
| 9-18         | 1,300             |
| 19-50        | 1,000             |
| 50+          | 1,200             |

According to MyPyramid, youth ages 9 and older and adults should get 3 daily servings of dairy. A serving of dairy is equal to:  
 1 cup (8 ounces) of milk,  
 1 cup (8 ounces) of yogurt, or  
 1-1.5 ounces of cheese (the size of 4 dice or 1/3 cup shredded).

- ▶ Youth ages 9-18 need more calcium in order to reach peak bone density.
- ▶ Adults over 50 need more calcium because aging can cause bone loss.

### According to U.S. Department of Agriculture National Health and Nutrition Examination Survey (NHANES) data on Dietary Intake of Americans<sup>1</sup>:

- Nearly 50% of children ages 4-8 do not meet calcium recommendations.
- More than 90% of preteen (9-13) and teen (14-18) **girls** do not meet calcium recommendations.
- Almost 70% of preteen (9-13) and teen (14-18) **boys** do not meet calcium recommendations.
- At least 80% of **women** 19 & older do not meet calcium recommendations

**The bottom-line is...** that 9 out of 10 teen girls and 7 out of 10 teen boys do not meet their daily calcium needs!

<sup>1</sup>Moshfegh A, Goldman J, Cleveland L. *What We Eat in America, NHANES 2001-2002: Usual Nutrient Intakes from Food Compared to Dietary Reference Intakes*. U.S. Department of Agriculture, Agricultural Research Service: 2005.

## 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 boys<sup>3</sup>**

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*.

<sup>3</sup>Miller GD, Jarvis JK, McBean LD. *Handbook of Dairy Foods and Nutrition*. 3rd ed. Boca Raton, FL: National Dairy Council; 2007.

### Osteoporosis estimates<sup>2</sup>:

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 \$52 million each day.

These figures continue to rise.

<sup>2</sup>National Osteoporosis Foundation. *Fast Facts on Osteoporosis*. <http://www.nof.org>. 2008.

## Dairy for Health

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

- ▶ Hypertension (high blood pressure)
- ▶ Osteoporosis
- ▶ Kidney stones
- ▶ Colon cancer

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 regular white milk.

Recent studies show that drinking flavored or white milk **improves the nutrient intake** of children and **does not increase BMI** (body mass index).