

## Just the Facts, Please

### What You Need to Know About Milk and Milk Products

#### Hormone Use

- The Federal Drug Administration has determined rBST to be completely safe. Studies have shown that milk from rBST-supplemented cows is identical to milk from untreated cows.
- BST, which is naturally present in cow's milk, does not have any physiological effect on humans consuming the milk.
- Many consumers, based on their own personal values, prefer milk from cows that have not been supplemented with rBST. Several California processors provide this milk and label it as such. Check with your local retail outlet.
- Many conventional farmers voluntarily forego the use of rBST.

#### Antibiotic Use

- Every tanker of milk entering dairy processing plants is strictly tested for antibiotic residues. If any tanker tests positive the milk is disposed of immediately, never reaching the public.
- A cow being treated for illness with antibiotics is separated from the milk herd to ensure her milk does not go into the milk supply. The cow is not returned to the milking herd until her milk is free of antibiotics.

#### Organic Milk

- According to USDA, milk and milk products can be labeled "organic" if the milk is from cows that have been exclusively fed organic feed, allowed periodic access to pasture, and are not treated with synthetic hormones or given certain medications to treat illness. Conventionally raised dairy cows may adhere to similar standards, but are not required to do so.
- Organic classification is not a judgment about the quality or safety of the product, but rather defines the agricultural processes.
- Milk from organic and conventionally raised cows is equally nutritious. An 8-ounce serving of each offers the same amount of nine essential nutrients, including calcium, Vitamin D and potassium.
- Organic milk is not safer than conventional milk. All milk must comply with very stringent safety standards and is among the most highly regulated and safest foods in our food supply.

#### Soy Products

- Soy beverages are not naturally a good source of calcium, as they only contain about 10 mg of calcium per serving. Many manufacturers, however, fortify soy beverages with calcium. The amount is not regulated and can vary from 80 to 500 mg per serving.
- The bioavailability of calcium, or the amount the body absorbs, is actually about 25 percent less from soy beverages as compared to cow's milk. This means that soy beverages would need to contain 500 mg per cup to provide the same amount of calcium that one cup of cow's milk provides (300 mg).
- It is important to remember that soy products may not replicate the package of nutrients contained in dairy products beyond calcium, such as phosphorous, magnesium, Vitamin D and protein.

#### Milk's Value in Diet

- Milk and milk products provide an excellent nutritional and economical value for the consumers' shopping dollar.
- On average, milk provides more calcium per dollar than many other beverages, such as fortified orange juice and soy beverages.

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- Milk and milk products are a nutrient-rich choice, providing nine key nutrients, many of which are shortfall nutrients for both children and adults in the United States—including calcium, potassium and Vitamin D.

### Flavored Milk

- The 2005 Dietary Guidelines for Americans encourage the consumption of three servings of low-fat or fat-free dairy foods each day for individuals 9 years and older. Flavored milk can help meet this recommendation, as it contains all of the major nutrients found in unflavored milk. The American Academy of Pediatrics considers flavored milk a healthy beverage option for children.
- Flavored milks contain the same essential nutrients as unflavored milks, including calcium and Vitamin D; they contain 2 to 4 teaspoons of added sugar that accounts for about 60 more calories per serving than unflavored milk.
- When used in moderation and with concern for overall caloric balance, sugars can increase the appeal of nutrient-rich foods and provide additional choices for children to meet nutritional needs in the context of a healthful diet.
- Research shows that children who drink flavored milk can increase milk and nutrient intake without increasing added sugar or total fat intake and without adversely affecting body mass index, a measure of weight status.
- Flavored milk is a healthful, nutrient-rich product approved by California SB965 school beverage guidelines and wellness policies. It is the most popular milk choice among school children. Most of the flavored milk consumed in schools is low-fat or fat-free.

### High-Fructose Corn Syrup (HFCS)

- Dairy products that contain high-fructose corn syrup (HFCS) include flavored milks, flavored yogurts and milkshakes. However, compared to consumption of HFCS from other sources such as soft drinks, dairy products contribute a relatively small percentage of all HFCS calories consumed by the average American.
- Because increased use of HFCS in the United States mirrors the rise in obesity, HFCS has been suggested to be a culprit in the nation's obesity crisis. However, an expert panel convened by The Center for Food, Nutrition and Agriculture Policy concluded that based on the scientific research, HFCS does not appear to contribute to overweight and obesity any differently than other energy sources do. The American Medical Association reached a similar conclusion.
- Clinical studies have found no differences in blood-sugar levels, insulin, hunger, satiety or energy intake following consumption of beverages sweetened with HFCS versus sugar.
- Dairy products that use HFCS as a sweetener still offer the same nutrient package as the non-sweetened products and often are more appealing to children, ensuring adequate consumption of important nutrients like calcium, magnesium, potassium, vitamins A and D, and protein needed for growing bones and bodies.

### Healthy Foods

- Healthy foods are those defined as nutrient-rich; that is, there is a high ratio of key nutrients to calories provided by the food.
- Naturally nutrient-rich food choices include low-fat milk and milk products like cheese and yogurt, whole grains, fruits, vegetables, lean meats and beans. Choices from all of these food groups should be made daily to ensure that all nutrient recommendations are met.
- Factors that consumers consider in making food choices supportive of optimal health are based on their own personal preferences and food-selection considerations, whether traditional—for example, taste, convenience, cost and nutritional value, or evolving—for example, safe, sustainable and local.

- A DASH dietary pattern (Dietary Approaches to Stop Hypertension) has been recognized in the 2005 Dietary Guidelines for Americans as an exemplary pattern to direct food choices. The DASH diet is one that is high in fruits, vegetables, low-fat milk and milk products and whole grains, as well as being moderate in total fat content.

### **Lactose Intolerance**

- People with lactose intolerance can usually enjoy dairy foods if eaten in small quantities with meals. Notably, they cannot digest more than a small amount of milk because they do not have enough of the intestinal enzyme lactase. Undigested lactose can produce uncomfortable symptoms such as bloating, stomach discomfort, gas and diarrhea.
- Recent research has shown that most people who are lactose intolerant can consume up to 2 cups of milk per day without symptoms if spread out over the day and consumed with meals. The recommended number of servings from the milk and milk products group can also be obtained by eating yogurt and aged cheese, which are generally better tolerated than milk. Lactase-treated milk is sold in many supermarkets.
- It is important for individuals with lactose intolerance to include milk and milk products in their diets because of their contribution to the overall diet quality. This is affirmed by The American Academy of Pediatrics in a September 2006 report, the committee for the 2005 Dietary Guidelines for Americans and the National Medical Association, the largest African American physicians' group in the country.
- Milk and milk products are a critical source of calcium, protein, riboflavin, Vitamins A and D and many other important nutrients that should not be eliminated from the diet unless recommended by a doctor.

### **Vegetarian and Vegan Diets**

- Vegetarian diets that include milk products and eggs (lacto-ovo vegetarians) can meet the dietary needs of children and adults if they consume the amounts recommended in USDA's MyPyramid.
- Vegan diets (those with no animal products whatsoever) should be planned carefully, often with the assistance of a registered dietitian. Care must be taken that adequate calories are consumed and that sufficient amounts of key nutrients are provided, particularly Vitamin B-12, iron, zinc and calcium.
- Soy beverages and products (e.g., tofu) are often utilized in lacto-ovo vegetarian and vegan diets as a calcium source. One should note, however, that most fortified soy products do not contain the package of nutrients beyond calcium that dairy provides (e.g., Vitamin D, phosphorous, magnesium and potassium).

### **Environment and Sustainability**

- Dairy farmers support practices that make economic sense, help the environment and are socially responsible to our communities and our world – eg, reducing energy use, reducing cooling and packaging costs, using by-product feeds, and recycling manure into renewable energy. In California, the Dairy Quality Assurance Program demonstrates the industry's commitment to protecting the environment.
- Advances in agricultural production efficiencies over the latter part of the 20th century have prevented massive amounts of greenhouse gases (methane, nitrous oxide and carbon dioxide) from entering the atmosphere, according to a new study led by Stanford University scientists, published online in June 2010 in Proceedings of the National Academy of Sciences.
- As part of an industry-wide initiative, dairy farmers and milk processors are working to measure the carbon footprint for each stage of milk production. Their goal is to continue to produce nutritious dairy products while further reducing greenhouse gas emissions.

- Dairy farmers continually look for innovative ways to protect the water supply. They often partner with government agencies to develop better nutrient management plans and look for new technologies to maintain a clean and plentiful water supply.
- Farmers are using innovative and effective options for managing nutrients (more commonly referenced as manure) in order to help improve air and water quality and public health. All farmers have a stake in following regulations and best management practices to protect the health of their families, their cows and the land.

### **Animal Care and Welfare**

- Dairy farmers depend on healthy cows to produce pure and wholesome milk and sustain their livelihood. They care for their herds by providing a nutritious diet, good medical care and healthy living conditions.
- Dairy cows receive regular medical care, including periodic check-ups, vaccinations and prompt treatment of illness.
- Many farmers house their animals in free stall barns or open dry lot corrals, which allow cows to move about to eat, drink or rest whenever they like. These barns and corrals provide easy access to feed and clean water, as well as shade and protection from bad weather.
- Cow comfort is important to dairy farmers because a comfortable cow will give more milk. Dairy farmers provide clean, dry bedding to their cows and access to food and water 24 hours a day.
- Dairy farmers adhere to animal care standards. A third party verification process has been implemented.

### **Food Safety**

- Milk and milk products undergo extensive testing before they reach the grocery store. Strict government standards ensure that all milk is safe, wholesome and nutritious.
- Milking machines deliver milk directly from the cows to a refrigerated holding tank to preserve freshness and safety. The milk is then quickly transported to processing plants for continued freshness and safety.
- Since its introduction over a century ago, pasteurization has been recognized around the world as an essential tool for ensuring that milk and milk products are safe.
- Dairy farmers work diligently to implement a wide range of measures to secure facilities and the milk supply. Measures in place include bio security, placing locks on milk tanks and maintaining a closed herd.
- Dairy farmers and the dairy industry overall have a remarkable history of providing safe and healthy products. They are committed to providing a steady supply of nutritious milk and milk products.

### **Economic Importance**

- According to 2008 figures, California dairy producers were responsible for creating over 443,000 jobs and \$63 billion in economic activity for the state. This is more than the motion picture/television or wine industries.
- California's total milk production has grown from 27.6 billion pounds in 1998 to 41.2 billion pounds in 2008. Our state dairy industry is responsible for 21 percent of the nation's milk supply, while only accounting for 11% of the population.
- In 2008 California had 1905 dairies with 1.8 million cows, supplying milk to 117 dairy processing plants which produced fluid milk, cheese, ice cream, butter and other dairy products.

This information is compiled for you by Dairy Council of California. Through Dairy Council, dairy producers and processors give back to California communities by educating nearly 10 million children and adults each year about the health benefits of dairy foods as part of an overall nutrient-rich dietary pattern. Information about Dairy Council's family of nutrition education programs for schools and health care settings, as well as its traveling assembly program, Mobile Dairy Classroom, can be found at [www.dairycouncilofca.org](http://www.dairycouncilofca.org). For healthy eating tips, visit Dairy Council's meal-planning website, [www.mealsmatter.org](http://www.mealsmatter.org).