



## Milking It: Decoding Dairy to Decide What to Use When

**D**airy decisions are more complicated now that options have multiplied. New issues to consider include whether cows are treated with hormones, whether milk is organic, and even real dairy versus soy. Here's the dairy lowdown:

**Whole, Reduced-Fat (2%), Low-Fat (1%) and Fat-Free (Skim) Milk** – Most milks are fortified with vitamins A and D. Whole milk must contain 3.25% milk fat (8 grams per 8-ounce serving). The other milks have all the same nutrients with less fat per serving (5 grams in 2% milk, 3 grams in 1% per serving and less than 1 gram in fat-free). Though 2% milk sounds low in fat, it isn't. Still, it's a good choice to help transition to fat-free.

**Reduced-Calorie Milk** – Relatively new, *Calorie Countdown* by H.P. Hood has about half the calories of its counterparts. Originally called “low-carb milk,” it is essentially “reduced-sugar milk,” with artificial sweeteners added.

**Protein-Fortified Milk** – Added milk proteins and non-fat milk solids, give this option a thicker mouthfeel than skim milk, with more protein and more calcium than regular milk. Often has “Plus” in the name.

**Lactose-Free Milk** – Milk that's had its natural sugar removed. No other nutrients are affected. Some dairies also sell lactose-reduced milk, which tastes more like regular milk.

Most people with lactose intolerance can drink small amounts of regular milk, but these products are good options if you drink a lot of milk.

**Cultured Buttermilk** – This has bacteria added, which creates a telltale tartness from lactic acid produced as bacteria feast on lactose, milk's natural sugar. Buttermilk's thick texture belies the fact that it's usually low in fat and is useful for reducing the fat content of home-baked goods while preserving texture and moistness.

**Organic Milk** – All milk labeled “organic” must come from farms certified as meeting the U.S. Department of Agriculture's standards for organic production.

**“No Artificial Hormones” Milk** – Milk from a dairy that doesn't use recombinant BST (rBST), a bioengineered version of a natural cow hormones. The milk is not hormone-free, because all milk contains some natural hormones. Experts say milk from rBST-treated cows is safe; the hormone breaks down in the digestive tract and isn't active in humans anyway. Still, you may choose to avoid it, as its use weakens cows' bones and encourages mammary infections in cows, which then require antibiotics, fostering the creation of “super bugs” – antibiotic-resistant bacteria.

**Raw Milk** – This is unpasteurized milk. The FDA has deemed it unsafe and bans its shipment across state lines. A few states allow its sale in stores; about half the states allow local farms to sell directly to consumers. A few require raw milk to meet the same bacteria-count standards as pasteurized milk. There's no proof it's more nutritious. What's worrisome is that raw milk causes twice as many food-borne outbreaks of campylobacter, E. coli, Listeria and Salmonella every year compared to pasteurized milk.

**Goat's Milk** – Sold at health food stores and touted as an option for those who don't “tolerate” cow's milk well. Some people think goat's milk is more easily digested because its protein composition is different from that of cow's milk and it contains a higher proportion of small milk-fat globules. It does contain lactose, however.

**Ultra-Pasteurized Milk** – Heated to a higher temperature than regular pasteurized milk, but for only two seconds. Must be refrigerated, but stays fresh for 30 to 90 days if unopened. Has a bit of a “cooked” flavor.

**UHT Milk** – Milk heated to ultra-high temperatures and packaged in aseptic cartons that keep at room temperature for three to six months. Must be refrigerated once opened. Sweeter than pasteurized milk. Useful for emergency supplies and travel.



**Sweetened Condensed Milk** – Thick and sweet, used mostly to make desserts, candy and sweet beverages. It has three times the fat and six times the calories of regular milk...and 12 times the sugar.

**Evaporated Milk** – Milk with half the water removed by evaporation, so it has double the protein and calcium of regular milk. The processing caramelized milk sugar and modifies larger milk proteins so they're resistant to curdling, making it valuable in cooking and a good substitute for cream. Look for skim or 2% evaporated milk.

**Instant Nonfat Dry Milk** – Easily reconstituted with water, handy for emergencies and "stretching" fluid milk. Use the powder to bump up the protein in smoothies, mashed potatoes, puddings and soups.

**Soy milk** – Not a dairy product. Check labels and choose one that contains 12 grams or less of sugar per serving and is fortified with calcium and vitamin D (you need 25% more soy milk calcium to absorb the equivalent of cow's milk calcium).

Source: Article written by Kitty Broihier, M.S., R.D., *Environmental Nutrition*: July 2008.

## Vitamin D and Calcium Keep Weight Off Women?

It's a cruel fact of life that postmenopausal women typically gain weight – even if they keep up with their diet and exercise routine. Now comes word from researchers at Kaiser Permanente Northern California in Oakland that calcium and vitamin D may slow down or even stop that weight gain.

**The study:** Led by Dr. Bette Caan, the Kaiser team randomly assigned 36,282 postmenopausal women to take either 1,000 milligrams of calcium and 400 IU of vitamin D daily or placebo pills. The women, who were participants in the Women's Health Initiative, were all between the ages of 50 and 79.

**The results:** After three years, the women who took the calcium and vitamin D supplements were five percent less likely to have gained between two and seven pounds and six percent less likely to have gained more than seven pounds, compared with those who took the placebo. In addition, those who took the supplements were more likely to have maintained a stable weight or even lost more than two pounds. The effect persisted throughout the seven years of the study. Interestingly, among the women who had been receiving adequate amounts of calcium when the study started, the calcium and vitamin D supplements had no effect on their weight.

**Why?** Calcium and vitamin D work together to control the metabolism of fat. In addition, there is some evidence that calcium reduces fatty acid absorption and promotes fat expulsion through the intestines, although studies on this have had mixed results.

"Our findings do not alter current dietary recommendations," Caan wrote in the Archives of Internal Medicine, noting that cutting calories and boosting activity remain the most important ways to control or lose weight. "Postmenopausal women should continue to be advised to consume 1,200 milligrams per day of calcium as recommended by the Food and Nutrition Board of the National Academy of Sciences," she added.

Source: Archives of Internal Medicine: May 14, 2007 and webmd.com/diet/news/



**You can support the Arizona Osteoporosis Coalition without spending an extra dime, if you already shop at Bashas. AZOC is part of Bashas' Shop & Give program. BUT REMEMBER: Everyone, including past participants, must link their group ID number to their Bashas' Thank You Card every year. Ask your friends to select AZOC for their Shop & Give charity too.**

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**[www.fitbones.org](http://www.fitbones.org)**

## The Silver Book

The Alliance for Aging Research, in partnership with the National Osteoporosis Foundation (NOF), released a new volume of *The Silver Book®: Chronic Disease and Medical Innovation in an Aging Nation*. The latest addition to The Silver Book series focuses on the most prevalent bone disease in the U.S.—osteoporosis. The volume was released at a Capitol Hill briefing which featured medical and economic experts and patients. In addition, Reps. Shelley Berkley (D-NV) and Michael Burgess (R-TX), champions of legislation to promote prevention and testing for the disease, supported the briefing.

The Silver Book is published by the non-profit Alliance for Aging Research drawing upon over 400 independent studies and reports on chronic disease and prospects for medical innovations to mitigate the burden. The Silver Book currently catalogues some 1,500 statistics that outline a coming "Silver Tsunami" with the aging U.S. population.

As a driving force behind the 2004 Surgeon General's Report on Bone Health and Osteoporosis and most recently the Summit for a National Action Plan for Bone Health, NOF is a natural partner for the release of this volume of The Silver Book. NOF is the leading independent organization solely dedicated to osteoporosis and bone health and alerts the public and health care professionals about the importance of bone health and the seriousness of osteoporosis and fractures. Publication of The Silver Book: Osteoporosis is supported by an unrestricted educational grant from Novartis.

"We've made a lot of progress in developing better ways to diagnose and treat the disease, and we need to continue to educate people of all ages about osteoporosis because prevention and early intervention are so important," said Rep. Berkley, who was diagnosed with the disease in 1998. "Osteoporosis is a serious and silent disease that affects millions of people who risk fractures that can lead to loss of independence and even death," said Leo Schargorodski, executive director of NOF.

"Two and a half years from now, the Baby Boom generation starts to become the largest Medicare generation in history," explained Daniel Perry, executive director of the Alliance. "Our best defense against the Silver Tsunami is to play to America's strengths in scientific innovation and technological ingenuity. We hope that the Silver Book will become the 'go-to' resource for those who develop health policy."

All of the data are cited with original sources and available online. The online version is a searchable database that is continuously updated as new information is published and that allows users to submit data. Users can also subscribe to the RSS feed.

The new volume on osteoporosis and the other volumes may be accessed online at [www.silverbook.org](http://www.silverbook.org)



## Kale is a Vegetable Superstar

Your mom said, "Eat your greens." The National Cancer Institute says, "Eat your greens." You probably tell your family, "Eat your greens." But do you know why this color is so essential to your diet?

"Not only do these vegetables look great and taste wonderful, but they are rich in the phytochemicals that keep you healthy," says Carol Schlitt, University of Illinois Extension nutrition and wellness educator. "For example, the carotenoids-lutein and zeaxanthin - that are found in spinach, collards, Swiss chard, kale and broccoli have antioxidant properties that protect your eyes by keeping your retina strong."

Also, research shows that green cruciferous vegetables (like cabbage, Brussels sprouts, cauliflower, kale and turnips) may reduce the risk of cancerous tumors! One cup of cooked, frozen kale has 90mg of calcium. Kale is a very good source of dietary fiber, manganese, copper, and potassium, as well as being particularly rich in vitamins A, C, and B<sub>6</sub>. One cup of kale contains just 33 calories, but provides over 200% of the daily recommended intake of vitamin A, an important nutrient for vision. Kale is also especially noteworthy for its high content of vitamin K, a fat-soluble vitamin that plays an important role in blood clotting.

Mild greens, such as spinach, kale, and chard can be steamed, boiled, or eaten raw. Raw kale, with its mild taste, makes a great addition to salads. Add kale to soups or casseroles for a tasty winter treat. Look for kale as a pre-washed, ready-to-use bag or in bunches in your produce aisle.

## Resources for Girls' Bone Health

Powerful Girls – <http://www.cdc.gov/powerfulbones> (Centers for Disease Control) is designed especially for girls. The site has colorful graphics, interactive games and activities, tips and recipes.

Milk Matters – <http://www.nichd.nih.gov/milk> (National Institutes of Health) contains educational and informational resources of interest to both adults and older youth.



The following recipe is the Recipe of the Month in the *StrongWomen Newsletter*, Issue 121, October 2008. This baked squash goes perfectly with nearly any main course during the holidays – turkey, ham, or a roast. It is simple to prepare, and even the folks who don't usually eat squash are likely to enjoy this sumptuous baked vegetable. Serves 4.

### Baked Acorn Squash with Apple

- 2 acorn squash, halved and cleaned of seeds
- 1 baking apple, peeled and chopped into very small pieces
- 4 teaspoons of salted butter
- 2 teaspoons of cinnamon
- 1 teaspoon nutmeg

Preheat the oven to 375 degrees. In each acorn half, place 1 teaspoon of butter and equal portions of the chopped apple. Sprinkle each half with ½ teaspoon of cinnamon and ¼ teaspoon of nutmeg. Wrap each half individually in aluminum foil, leaving a very small opening at the top (or poke a few fork-holes into the foil). Place the squash into a shallow baking dish or on a cookie sheet, and bake for 45-60 minutes – until the squash is very soft when a fork is inserted. Turn off the oven and leave the squash wrapped in foil until ready to serve.

Nutritional information (per serving): 167 calories; 4g fat; 2.3g saturated fat; 2g protein; 36g carbohydrate; 10g fiber; and **100mg calcium**. Portions: 2 grains, 1 extra.

### Creamy Potato Kale Casserole

- 2 Tbsp all-purpose flour
- 1½ cups skim milk, or unsweetened soy milk
- ¾ cup cheddar cheese, lowfat, sharp, shredded\*
- 3 medium Idaho potatoes, peeled and sliced ⅛-inch thick
- 1 Tbsp extra-virgin olive oil
- 2 cloves garlic, chopped
- 1 pound kale, washed, coarse stems removed and chopped
- ½ tsp sea salt
- ¼ tsp red pepper flakes
- 2 Tbsp grated Parmesan cheese

Preheat oven 350°F. Spoon flour into a medium-sized, heavy-duty saucepan. Gradually whisk in milk until blended. Bring to a boil. Cook over medium heat 5-8 minutes, or until thickened. Remove from heat and stir in cheese until melted.

Place potato slices in a separate saucepan with enough lightly salted water to cover, bring to a boil and cook for about 5-7 minutes. Drain potatoes in a colander.

Return the saucepan to medium heat and add the olive oil. Saute the garlic 1 minute. Add kale, salt and red pepper flakes. Cover and cook over medium heat until kale wilts. Drain off accumulated liquid.

Lightly spray an 8x8 or 7x9-inch baking dish with olive oil spray. Arrange ⅓ of the potatoes on the bottom; top with half of the kale mixture, then ⅓ of the cheese mixture. Repeat in the following order: potatoes, kale, cheese, potatoes, cheese. Sprinkle the top with Parmesan cheese. Bake in preheated oven for approximately 35 minutes, or until golden on top and the kale is tender.

\*Low-fat soy cheese can be substituted for the cheddar if desired.

Serves 8. Per serving (excluding unknown items): 200 calories; Calories from Fat 51; 5.8g Fat; 10g Protein; 29g Carbohydrates; 2.4g Dietary Fiber; 12mg Cholesterol; 214mg Sodium; **270mg Calcium**.

Source: ©The Regents of the University of Michigan, Ann Arbor, Michigan 48109.

Mary Conner, Administrative Assistant, from Maricopa County made the Creamy Potato Kale Casserole for the fall office potluck recently to rave reviews. Try this healthy and delicious recipe during the holidays.

## Maricopa County News

### Hotshots Event

**B**one Builders helped with the 5<sup>th</sup> Annual Arizona Osteoporosis Coalition Hotshots event in October. Twenty teams shot hoops to support osteoporosis prevention in Arizona.

Elizabeth Schnoll with Maricopa County Bone Builders and ASU's Sparky know how important early screening is for detecting weak bones and osteoporosis.



### Strong Voices for Strong Bones

**T**he National Osteoporosis Foundation and the Arizona Osteoporosis Coalition sponsored a one-day workshop on grassroots advocacy focused on preventing osteoporosis and improving bone health. Professionals and volunteers from across the state met in Tempe to plan for action in Arizona.

Sharon Hoelscher Day, President of AZOC and Area Extension Agent with the University of Arizona Cooperative Extension and Maricopa County Bone Builders talked about the work AZOC and Bone Builders are doing in the policy arena.



Elizabeth Schnoll with Maricopa County Bone Builders, Vanessa Stanford Farrell with the University of Arizona, Department of Nutritional Sciences and Linda Block with Pima County Bone Builders discuss how to expand outreach on bone health issues.

*Sharon Hoelscher Day*

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