

nutrition made easy

The New Dairy Queens

A healthy cook's guide to the new milk case

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Thirty years ago, cow's milk ruled the dairy case. Milk was seen by many as a near-perfect food, essential to growth and good health. One glance at the dairy case today, and you'll see how drastically the milk scene has changed, with a proliferation of choices. In fact, a recent visit to a grocery store in our hometown of Birmingham, Alabama, revealed 73 options! So how does a savvy shopper navigate the expanding milk section? Read on for our guide.

Why All the New Milks?

THE MILK SCENE HAS CHANGED tremendously, due in large part to increased demand for nondairy options. Nondairy milk consumption has steadily grown about 11% each year since 1999, while consumption of cow's milk has declined 25% since 1975. A few reasons for this shift:

1 DAIRY INTOLERANCE

A substitute for dairy has become a medical necessity for many people. The prevalence of food allergies has increased almost 20% since 1997. (Many also believe sensitivity or intolerance to foods has increased, although that is harder to diagnose to quantify.)

2 SHIFT IN PERCEPTION

Cow's milk is not necessarily the gold standard for everyone anymore. Many feel that nondairy milks are a smarter choice—but this can vary based on an individual's health and needs.

3 PUSHING PLANTS

Consumers as a whole (from vegetarians to meat-eaters) are seeking more plant-based foods to use in place of meat and dairy. Motivation may stem from health, sustainability, or cost concerns; switching to a nondairy milk is an easy way to incorporate more plant-based foods.

4 CONCERNS ABOUT HORMONES

While the FDA has deemed conventional farming practices safe, many people still question the safety of hormones and antibiotics given to animals that produce milk.

What's New and What's Next

DAIRY MILK

► **Filtered Milk:** One of the newest products to hit the market. Filtering concentrates the nutrients in milk by removing water; one cup of filtered has up to 50% more protein, up to 30% more calcium, a creamier mouthfeel, and a richer taste compared to unfiltered milk.

► **Grass-Fed Organic Milk:** For milk to be labeled organic, the cows must get at least 30% of their diet from grass-grazing. Grass-fed organic milk differs from standard organic milk in that it comes from cows whose diet is exclusively grass.

NONDAIRY MILK

► **Peanut Milk:** Not out yet, but it will have around 8g protein per cup—an amount currently only found in soy and pea milks for the nondairy crowd. The National Peanut Board confirmed development is underway, but there's no release date yet.

► **Plant and Grain Blends:** Manufacturers are blending coconut, legumes, nuts, seeds, and grains for new flavors.

► **Added Protein:** Many nut and grain milks are low in protein, so several brands now offer "protein" or "boosted" versions. The added protein usually comes from peas and bumps protein per cup to about 8g.

IS RAW MILK BETTER FOR ME?

Some people claim nutrients and good bacteria are lost when milk is pasteurized, making raw milk a healthier choice. But research suggests little to no nutrients are actually lost, and the CDC warns raw milk can contain harmful bacteria like E.coli and salmonella. Best to play it safe.

WHEN THINGS GET TOO SWEET

Original, unsweetened, vanilla: The options are plentiful, and added sugars are different for each. Here's a breakdown of approximate added sugar amounts in the different milks; aim for less than 10g.

NO ADDED SUGAR

Plain dairy milks, nondairy milks labeled "unsweetened"

5-7G ADDED

Most nondairy milks labeled "original"

8-9G ADDED

Vanilla-flavored dairy and nondairy milks

16-17G ADDED

Chocolate-flavored dairy and nondairy milks



			Price	Pros	Cons	Taste Test
Dairy-Based Milk	Cow's Milk Whole	150 calories; 4.6g sat fat; 8g protein; 12g carb	CONVENTIONAL \$0.30	▶ A NATURALLY GOOD source of protein, calcium, and potassium, it's also fortified with vitamins A and D and offers a nice protein-to-carb balance. Along with goat's milk, it has more naturally occurring ingredients than nondairy alternatives.	▶ FAT LEVELS VARY GREATLY between skim and whole; the more fat, the higher the calories. While fat aids in mineral absorption and satiety, most of the fat is saturated. Cow's milk contains lactose and may also contain traces of hormones unless organic.	▶ DEPENDING ON THE TYPE , the flavor is rich, creamy, and slightly sweet (whole); moderately rich (2% and 1%); or very mild and bland (skim).
	2%	125 calories; 2.9g sat fat; 8g protein; 12g carb	ORGANIC \$0.58			
	1%	102 calories; 1.5g sat fat; 8g protein; 12g carb	GRASS-FED ORGANIC \$0.75			
	Skim	83 calories; 0.1g sat fat; 8g protein; 12g carb				
	Goat's Milk Whole	140 calories; 7g sat fat; 8g protein; 11g carb	\$1.16	▶ A NATURALLY GOOD SOURCE of protein, calcium and vitamin A, it also contains less lactose, making it a dairy milk that some with lactose intolerance can drink.	▶ WHOLE GOAT'S MILK has the most saturated fat per glass than any other milk—more than half the daily recommended amount. Sat fat has been shown to raise blood cholesterol levels.	▶ SIMILAR TO COW'S MILK in consistency and color, but has a profound goat flavor (think drinkable goat cheese).
	Low-Fat	100 calories; 1.5g sat fat; 8g protein; 11g carb				
Non-Dairy Alternatives	Soy Milk	80 calories; 0.5g sat fat; 7g protein; 4g carb	\$0.39	▶ SOY WAS THE FIRST NONDAIRY milk that could rival the protein in dairy until pea milk arrived. Usually fortified with calcium, B12, and vitamin D.	▶ SOY MILK IS RICH in isoflavones, once thought to encourage cancer growth—though current research shows no correlation.	▶ CREAMY BEIGE IN COLOR with a subtle nutty, bean flavor; good for boosting protein in smoothies and as a milk substitute in baking.
	Nut Milks (almond, cashew, hazelnut)	25-60 calories; 0g sat fat; 0-2g protein; 1-2g carb	\$0.41	▶ LOWER IN CALORIES than all other milks, they also have negligible saturated fat and are usually fortified with calcium and vitamins A and D.	▶ MOST NUT MILKS offer no significant protein and little vitamin E unless fortified (despite the fact that nuts themselves are rich in protein and vitamin E).	▶ CREAMY CONSISTENCY and subtle flavor of the nut they originated from; good for smoothies and oatmeal or for stirring into coffee.
	Pea Milk	75 calories; 0.5g sat fat; 8g protein; 0g carb	\$0.72	▶ OTHER THAN SOY , pea milk is the only option that rivals the protein in cow's milk. It's also a source of iron and fortified with vitamins A and D, calcium, and omega-3 fatty acids.	▶ THERE IS ONLY ONE brand available; it adds sunflower oil for creaminess, which is primarily omega-6 fatty acids, the type most Americans need to cut back on and can contribute to inflammation.	▶ THICK, CREAMY TEXTURE with definite legume flavor and slight bitter note on the finish; good for using in a savory soup in place of cream to reduce saturated fat.
	Rice Milk	70 calories; 0g sat fat; 0g protein; 11g carb	\$0.47	▶ IT'S LOW IN CALORIES , with most coming from carbohydrates. It has no saturated fat or lactose and is usually fortified with calcium, B12, and vitamin D.	▶ WHILE SOME START with brown rice, most refine the grain during processing, losing the extra nutrients offered in whole grains. It's also lowest in protein.	▶ ALMOST IDENTICAL to skim cow's milk in color and consistency with a sweet, slightly nutty flavor; a good option for cereal.
	Coconut Milk	45 calories; 4g sat fat; 0g protein; 2g carb	\$0.41	▶ IT COMES CLOSEST in creaminess to 2% or whole milk, thanks to fat content. It's also lactose-free and fortified with calcium and vitamin D.	▶ ITS FAT CONTENT is almost all from saturated, and it has negligible protein.	▶ THICK WITH A slightly tart flavor and faint coconut aftertaste; use with canned coconut milk to cut fat.
	Oat Milk	130 calories; 0g sat fat; 4g protein; 24g carb	\$0.65	▶ HIGHEST IN PROTEIN among nut and grain milks; 2g fiber per cup. Lactose-free; fortified with calcium and vitamin D.	▶ IT HAS MORE CALORIES than other nondairy options and double the carbohydrates of dairy milk.	▶ COLOR AND TEXTURE are similar to eggnog, and it has a naturally sweet oat flavor.
					Good source of B vitamins	Allergy-friendly option

The Smoothie Makeover

A POPULAR SMOOTHIE-SHOP chocolate sipper (size small) packs in 430 calories and 77g of sugar—over half of which come from added sugar. The smoothie’s traditional base of cow’s milk also prevents some from enjoying. While we didn’t want to take away the creamy sweetness, we wanted to see if there was a way to make a dairy-free version that also packed in more nutrients and less added sugar.

Unsweetened chocolate almond milk was the perfect chocolaty base. Vanilla soy yogurt pumps up the protein, while dates offer natural sweetness. In fact, the only added sugar in our makeover recipe is the few grams contained in the yogurt. Finishing with a touch of instant coffee heightens the chocolate flavor in the milk and cocoa, and we promise it won’t give you a buzz. The end result is a rich chocolate nondairy smoothie with fewer calories and only 7g of added sugar, as well as triple the fiber and double the calcium.

OURS SAVES

128 calories and 44g total sugars over smoothie shop versions, and boosts fiber by 5g!

Rich Dark Chocolate Smoothie
Recipe p. XX

RICH DARK CHOCOLATE SMOOTHIE

Active: 5 min. Total: 5 min.

This super-chocolaty smoothie is a tasty nondairy option. Dates offer richness and a caramel-like sweetness—naturally—while boosting fiber by about 2 grams.

- 3 pitted dates
- 1 cup unsweetened chocolate almond milk (such as Almond Breeze)
- 1 cup ice
- 1 Tbsp. unsweetened cocoa powder
- 1 (5.3-oz.) container vanilla soy yogurt
- ½ banana, sliced and frozen
- Dash of instant coffee or espresso granules (optional)

1. Place dates in a small bowl; cover with hot water. Let stand 3 minutes or until softened; drain.
2. Place milk and dates in a blender; blend 30 seconds or until pureed. Add ice and remaining ingredients; blend 30 seconds or until smooth.

👉 **SERVES 1** (serving size: about 2/3 cups)

CALORIES 302; **FAT** 7.2g (sat 0.5g, mono 2.7g, poly 2.5g); **PROTEIN** 9g; **CARB** 58g; **FIBER** 7g; **SUGARS** 37g (est. added sugars TKg); **CHOL** 0mg; **IRON** 3mg; **SODIUM** 200mg; **CALC** 483mg

VARIATION 1

CHOCOLATE-PEANUT BUTTER

Decrease chocolate almond milk to ¾ cup and vanilla soy yogurt to ½ cup; add 2 tsp. natural peanut or almond butter when processing remaining ingredients in Step 2.

👉 **SERVES 1** (serving size: about 2/4 cups)

CALORIES 329; **FAT** 11g (sat 1.3g, mono 5.7g, poly 4g); **PROTEIN** 9g; **CARB** 54g; **FIBER** 7g; **SUGARS** 33g (est. added sugars TKg); **CHOL** 0mg; **IRON** 3mg; **SODIUM** 186mg; **CALC** 368mg

VARIATION 2

CHOCOLATE-RASPBERRY

Omit ice. Add ½ cup frozen unsweetened raspberries when processing remaining ingredients in Step 2.

👉 **SERVES 1** (serving size: about 2/3 cups)

CALORIES 326; **FAT** 7.2g (sat 0.5g, mono 2.7g, poly 2.5g); **PROTEIN** 9g; **CARB** 65g; **FIBER** 10g; **SUGARS** 39g (est. added sugars TKg); **CHOL** 0mg; **IRON** 3mg; **SODIUM** 200mg; **CALC** 491mg



Chocolate-Peanut Butter Smoothie

Chocolate-Raspberry Smoothie

also lactose-free, low in sat fat, provides some omega-3s, and is usually fortified with calcium, B12 and vitamin D.

Cons: Protein content is only a fourth of what dairy and soy offer. Hemp milk (whose seeds are in the same species marijuana) has negligible THC traces—which may be a pro or con depending on your viewpoint.

Tasting Notes: Similar to nut milks in consistency with a slightly nutty flavor; some thought it had a grainy mouth-feel.

gluten-sensitivity: Look for milk (dairy and nondairy) that specifies it is gluten-free, or check with the manufacturer to be sure.

THE LATEST IN DAIRY MILK Dairy and Health

Milk allergies are rare and occur when the body's immune system reacts to milk proteins. Most of those affected are infants and young children. Approximately 80% will outgrow the allergy by age 16, but until they do, all dairy must be eliminated. What's more common is an intolerance or milk sensitivity where digestion of milk triggers mild, but uncomfortable, symptoms like bloating, gas, and cramps. It's estimated that 25% of the U.S. population loses the ability to digest lactose, the natural sugar found in dairy milk, at some point in life.

Is it lactose or A1?

If you're experiencing the symptoms of lactose intolerance—bloating, cramping, gas—but haven't been diagnosed, it could be something else. There's a new theory that a form of the milk protein casein may be to blame in some individuals rather than lactose. According to The a2 Milk Company, most cow's milk today contains A1 beta-casein and A2 beta-casein (referred to as A1 and A2), but milk originally only contained A2. A1 got added through a genetic mutation, and the thought is that A1 may trigger intolerance-like symptoms in some people.

A small initial study of individuals with self-reported lactose intolerance suggested that those who consumed milk with both A1 and A2 reported greater GI discomfort and a longer digestive time when compared to those who drank milk with only A2. Some have also suggested there may be a link between A1 in milk and risk of diabetes and heart disease, but others are skeptical and more research is needed before drawing any conclusions.

•**A2-Only Milk:** A few brands now offer cow's milk with only A2 proteins. While still new to the U.S., A2-only milk has been sold in Australia and New Zealand for over 10 years. Much more research is needed to evaluate the claims around A2 milk, and this milk isn't a solution for

those diagnosed with lactose intolerance. However, it may be worth trying if a milk intolerance is mild and self-diagnosed.

What about carrageenan?

Since all plant-based milks use water as a primary component, an emulsifier is required to keep the beverages from separating. These are often polysaccharides or lipids added to the "milk" during processing. Common ones used in nondairy milks are sunflower lecithin, guar gum, gellan gum, and carrageenan, all deemed safe by the FDA. However, there's conflicting research surrounding carrageenan and cancer development—so much that most manufacturers have reformulated their milk products to use another emulsifier due to consumer demand. A few brands still use it, so check the ingredient list if this is something you want to avoid.