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HIJACKED



HOW THE FOOD INDUSTRY CONVERTS DIET ADVICE INTO PROFITS

BY BONNIE LIEBMAN

Make half your plate fruits and vegetables. Make at least half your grains whole. Eat fish at least twice a week and nuts four times a week. Eat more fiber.

It doesn't matter what health experts recommend. Companies appear eager to meet those needs.

But instead of pushing healthier foods, they use new buzzwords ("1 full serving of vegetables!" "Made with whole grains!" "Omega-3") to keep the same cheap ingredients (mostly white flour, sugar, and oil) flying off the shelf.

Goodbye veggies. Hello cookies, chips, and chewy bars.

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HIJACKED

HOW THE FOOD INDUSTRY TURNS DIET ADVICE INTO PROFITS



Experts advise us to eat more fruits, vegetables, beans, whole grains, fish, and nuts. Instead, our stores are stocked with junk foods that claim to deliver those same foods. “It’s about marketing,” says Marion Nestle of New York University. “It’s not about health.”

Fiber

“Most consumers’ diets are fibre deficient—containing less than half the recommended daily amount of fibre,” explains DuPont’s brochure for its Litesse (“the Better Fibre”). “Tap into this market opportunity and project a healthier image for your product...”



Kellogg uses processed fiber to sell its “shake” (water, milk, whey, soy protein, and sugar).

Litesse is polydextrose, an odorless white powder made by connecting chains of glucose (dextrose) with bonds that are not easily broken apart by our digestive enzymes. So foods that replace sugar or fat with polydextrose have fewer calories...and, technically, more fiber.

It’s not just DuPont. “Who knew fiber could be clean and clear?” asks one of Archer Daniels Midland’s brochures. “Use Fibersol-2 digestion resistant maltodextrin in your beverage products and consumers will start looking at fiber in a whole new way!”

Indeed.

Why bother with a bowl of whole-grain cereal when you can have a Kellogg’s To Go Milk Chocolate Breakfast Shake, with “5 grams of fiber,” or its FiberPlus Antioxidants Chocolatey Peanut Butter Chewy Bar, with “35% DV fiber,” for breakfast?

Why bother eating a fiber-rich orange (that you have to peel) or a peach (that

might drip on your clothes) when you can snack on a Fiber One Double Chocolate Cookie or a Fiber One 90 Calorie Chocolate Fudge Brownie, each with “20% Daily Value of Fiber”?

You can even have a Weight Watchers Chocolate Crème Cake, with 4 grams of fiber, or a Skinny Cow Chocolate Truffle ice cream bar, with 3 grams.

Those and other cookies, brownies, bars, “fruit” snacks, drinks, muffins, and white-flour pastas and breads get much of their fiber from white powders like inulin, polydextrose, and modified starches.

The problem: most processed fibers don’t do as much as intact, unprocessed fiber.

“Epidemiological studies show that eating fiber-containing foods like fruits, vegetables, whole grains, and legumes has many good health outcomes,” says Joanne Slavin, professor of nutrition at the University of Minnesota. “That’s pretty solid.”

The evidence is strongest that those foods can lower the risk of heart disease, concluded the Institute of Medicine in 2002. But they may also help prevent constipation, type 2 diabetes, and obesity.

“But all these added fibers are really different,” explains Slavin. “If people think, ‘I’ll get



Cookies, brownies, chewy bars, fruit gummies...Fiber One makes junk food sound healthy.

nine grams of fiber in this chocolate bar and I won’t have to worry about getting enough fiber,’ that’s a mistake.”

Marketers’ biggest lure: the claim that fiber leads to weight loss by making you feel full.

Fiber “helps provide a feeling of fullness,” says the Thomas’ Light Multi-Grain Hearty

English Muffins package.

“Most added fibers don’t affect satiety,” says Slavin. “If you can sneak added fiber into a food or drink and it doesn’t affect the taste, it’s not likely to have any effect on satiety.”

For example, when she gave 22 women chocolate crisp bars with 10 grams (a fairly high dose) of one of four processed fibers—inulin, oligofructose, soluble corn fiber, or resistant wheat starch—they felt no less hungry than when they got bars with no added fiber.¹

“Inulin is a prebiotic, but it probably shouldn’t be labeled as a fiber,” notes

Slavin. (A prebiotic spurs the growth of bacteria in your gut.)

In another study, people were no less hungry after eating muffins made with 10 grams of added polydextrose than after eating a low-fiber muffin, though they were less hungry after eating muffins with 10 grams of resistant starch or corn bran.²



Looking for fiber? Why bother with fruits or veggies when you can have ice cream?





“4 g fiber” may give dieters an excuse to eat Chocolate Crème Cake.

“If you look at any added fiber, half of the studies show something and half show nothing,” says Slavin. “It takes a high dose of fiber to show an effect. At the amount that people typically eat, it’s not going to show anything at all.”

Foods that are rich in intact fiber (fruits, vegetables, beans, and whole grains) are a different story.

“In our studies, people do feel fuller with higher-fiber whole foods,” says Slavin. In one study, she gave 14 women one of two breakfasts: oatmeal, blueberries, and apples or a glass of skim milk and roughly two cups of Naked juice plus Fibersol-2, an added fiber. Both breakfasts had the same calories and the same amount of fiber (10 grams), protein, carbohydrate, and fat.³

“People felt fuller on the oatmeal and fruit,” says Slavin. “To say that if we put some fiber in a drink, it’s going to make you feel fuller, that’s misleading.”

Can processed fibers help keep you regular? Even high doses (20 grams a day) of inulin don’t.⁴ The same high dose of polydextrose increased stool weight, but “the increase was about 25 percent of that seen with wheat bran,” says Slavin. And the people who got the polydextrose also reported more gas.⁵

Similarly, “there is some data showing that some processed oat, soy, or corn fibers increase stool weight, but it’s not much of an increase,” adds Slavin.

And it’s not easy to tell *which* fibers provide even that small increase.

“They vary all over the place,” says Slavin. “You can isolate the fiber in oats by different methods. Some are really gummy, so they’re good for lowering blood cholesterol. An isolated oat hull is not. It’s complicated.”

The bottom line: added processed fibers don’t turn cookies, brownies, bars, and shakes into beans, bran, berries, and broccoli. But they do turn little white powders into bigger profits.

Veggies & Fruit

“We pop a flavorful blend of nine (count ‘em, nine) veggies and add a hint of olive oil and a touch of sea salt for tasty chips that are light, crispy, and gluten free,” says the Pop Chips Hint of Olive Oil Veggie Chips bag.

There may be nine veggies, but there’s more dried potato than any other ingredient, more tapioca starch than beet, spinach, pumpkin, tomato, or red bell pepper powder, and more salt than kale powder.

Then there’s the “half serving of vegetables per 2 oz. portion” of Ronzoni Garden Delight Tricolor Rotini, which comes from “vegetable solids from dried vegetables.”

What’s going on?

“Ingredient manufacturers turn powder into health gold,” ran the 2008 headline in *Food Processing* magazine.

“Fruit and vegetable powders, extracts and super-concentrates are making five-a-day easier.”

Easier? Maybe. But the Center for Disease Control and Prevention’s 5 A Day campaign was designed to get people to eat actual fruits and vegetables, not foods (or supplements) with powders or concentrates.

“The marketing is quite misleading,” says Barbara Rolls, professor and Guthrie chair of nutritional sciences at Penn State University.

“If we eat a variety of vegetables and fruits, we get all of their nutrients and phytochemicals, some of which we don’t even



“Nine veggies”? Make that dried potato and eight veggie powders or flours.

understand. So how could food companies know if powders have the same benefits?”

They don’t. Yet that hasn’t stopped them from stuffing fruit and vegetable powders into a growing list of foods. And wholesalers have a ready supply.

“Whether you want to add nutrition to your label, infuse full color or formulate a

specific flavor profile for your discerning consumers, PowderPure has the right powder to enhance your presence in the marketplace,” says PowderPure, which sells organic broccoli, spinach, and two dozen other fruit and vegetable powders.

And Milne Fruit Products’ fruit and vegetable powders are ideal for adding to “breakfast cereals, fruit pieces, bakery goods, snack chips, smoothies and yogurt, spreads, candies and chocolate, and juices.”

Even if powders had all of the nutrients in fruits and vegetables, they still would come up short.

“For satiety, we know that you need the whole food to get the full benefit,” says Rolls. “You need the chewing, the mouth-feel, the water, the fiber, and the whole cell wall, which provides more volume.”

In one study, Rolls fed people a 125-calorie “appetizer” of apple slices, applesauce (made from the same apples), or apple juice either with or without as much fiber as the apple and applesauce had.⁶

“The apple slices were most satiating,” says Rolls. People ate 190 fewer calories at their next meal after eating them, but only 100 fewer calories after the applesauce and no fewer calories after either juice.

“The apple takes more time to eat,” she notes. “Applesauce and juice go down very quickly.”

Yet V8 V-Fusion Açai Mixed Berry 100% Juice boasts that it has “1 full serving of vegetables” (from sweet potato and carrot concentrates) and “1 full serving of fruit” (mostly from apple and grape juice concentrates), as though juice and fruit were equally good.

Then there’s calorie density.



The “half serving of vegetables” in each 200-calorie cup has the vitamin A of a sixth of a baby carrot.

“Vegetables are so low in calories because they’re mostly water,” says Rolls. “If it’s dried powder, you don’t get that benefit because you don’t get the water content.”

Replacing some of the ingredients in almost any dish with vegetables (but not powders) should lower its calorie density—that is, the calories per ounce of food.

“If you reduce the calorie density of a dish by 20 percent by adding vegetables, people eat about 20 percent fewer calories because they tend to eat a consistent weight or volume of food,” notes Rolls.⁷

So if you add mushrooms and onions to your brown rice, odds are that you’ll eat less rice. Add broccoli and red peppers to your pasta, and you’ll eat less pasta. Add fresh berries to your cereal, and you’ll eat less cereal. (See March 2012, cover story.)

“You can even add pureed or chopped stealth vegetables,” says Rolls. “It’s very effective.”⁸

But adding vegetable powder to pasta or chips or other processed foods doesn’t lower their calorie density. It also increases the odds that you’ll be eating more white flour. And it guarantees that you’ll be missing something.

“There’s the pleasure, the variety of taste, and the culinary experience of eating fruits and vegetables,” says Rolls. “Who would want to replace that? How would you look forward to the summer produce season?”



Each cup has a “full serving of vegetables” from carrot and sweet potato juice, but only a third the vitamin A of one baby carrot.



More sugar and food starch than broccoli or any other veggie.



“Chocolate with almond” helps sell a jar of mostly sugar and oil.

Nuts

“With cocoa roast almonds,” says the box of Emerald Breakfast on the go! S’mores Nut Blend, which has more vanilla (read: sweetened) granola, honey roasted (read: sweetened) peanuts, milk chocolate candies, and marshmallow bits than almonds.

“Wholesome fuel to energize your day,” says the box of Planters NUT•rition Chocolate Nut Sustaining Energy Mix, which has more peanuts, candy-coated dark chocolate soynuts, and honey soy clusters than the huge almonds (“enlarged to show detail”) featured on the box.

Nuts, especially almonds, are the new health food.

“Almonds are on fire,” says Blue Diamond CEO as meteoric growth rates continue,” ran the headline on foodnavigator.com in March.

One reason for the industry’s success: almond milk.

With so many almonds on most cartons, people must think it’s like drinking liquid nuts. In fact, a cup of almond milk has just four almonds (and only 1 gram of protein). The rest is mostly water and (unless it’s unsweetened) sugar.

Ditto for Hershey’s Chocolate with Almond Spread. It’s largely sugar and oil (sunflower and palm), with a smidgen of nonfat milk, almonds, and cocoa.

Nuts—especially almonds and walnuts—are rich in polyunsaturated fat, which helps lower LDL (“bad”) cholesterol. And they have some protein, though not that much. (Almonds have about 6 grams of protein and 165 calories

per ounce, or roughly two dozen nuts. Walnuts have 4 grams of protein and 185 calories per ounce, or about 14 halves.)

But companies have discovered that there’s money to be made selling more than plain old almonds or walnuts.

“It’s called added value,” says Marion Nestle, the Paulette Goddard professor of nutrition, food studies, and public health at New York University.

“You can’t make any money selling plain nuts or fruit or vegetables. Therefore, companies are under pressure to add value. And adding value in America means adding sugar, salt, fat, or white flour. They’re cheap, and your product is shelf-stable.”

That means selling S’mores Nut Blend or Sustaining Energy Mix instead of a bag of nuts.

“They’re turning nuts into candy,” says Nestle. “Corn syrup is cheaper than nuts. Why not just have 200 calories’ worth of nuts without the artificial color, corn syrup, and other junk?”



Mostly water, plus sugar and almonds (about 4 per cup).



Each pack has 250 calories (that’s the “energy”), mostly from peanuts and sugar-coated soybeans.



More sugary oats, sugary peanuts, chocolate candies, and marshmallows than almonds.

Kellogg’s Oatmeal Delights Pop-Tarts (“made with whole grain”) are largely

Whole Grains

“Made with 5g whole grain,” says the box of Nabisco 100 cal Oreo Thin Crisps, which are mostly sugar and white flour.

So are WhoKnew Chocolate Smart Cookies (“4g whole grain”). And



a mix of whole wheat and white flour, with 3½ teaspoons of added sugar (and surprisingly little oatmeal).

When health authorities advise people to replace refined grains with whole grains, cookies and Pop-Tarts aren't what they have in mind.

"The message has gotten out of hand," says the University of Minnesota's Joanne Slavin.

The food industry deserves credit for launching a host of whole-grain breads, cereals, crackers, and pastas in recent years, she notes. "But with two out of three American adults either overweight or obese, you can't just tell people to eat more of any food that has whole grains or they'll end up eating more calories."

And some companies use "whole grain" claims to sell foods that are mostly plain old white flour. Cheez-Its ("5g of whole grain") and Thomas' PLAIN MADE WITH WHOLE GRAIN BAGELS ("10g of whole grain"), for example, each has more white flour than whole wheat.

"If a food has at least eight grams

of whole grains per serving, it can put the Whole Grains Council's stamp on its label," explains Slavin. "But foods can have a ton of calories or sodium or sugar or white flour and still get the stamp."

Take General Mills Hershey's Cookies 'n' Creme cereal. It may be "made with 100% whole grain," but it's also 33 percent sugar.

Bolthouse Farms boasts that its Straw-



A 360-calorie smoothie with 1 or 2 teaspoons of brown rice and oat flour.



Far more white flour than whole grain (or "100% Real Cheese").

berry Parfait Breakfast Smoothie has 4 grams of whole grains for "delicious flavor and satisfying fiber." There's not much fiber in 4 grams of brown rice flour and oat flour. Each 360-calorie bottle has more water and apple juice than anything else.

"When people see whole-grain claims, they think, 'This food must be good for me,'" says Slavin. But the Food and Drug Administration has never said how much whole grain a food must have to make a claim or what else the food can contain.

"The FDA has stalled," says Slavin. "Meanwhile, the marketplace goes nuts."

Omega-3s

The American Heart Association recommends eating two servings of fish, preferably fatty fish like salmon, every week. But omega-3 claims show up on far more than fish.



Smart cookies? They're just white flour, sugar, and oil... plus a dose of whole grain, processed fiber, and added calcium.

"Omega-3s supporting heart, brain and eye health," boasts Stonyfield Organic Chocolate Low Fat Milk & Omega-3s, which has 60 milligrams of omega-3s per cup, mostly from sardine and anchovy oil.

Horizon sells both a Chocolate and a Vanilla DHA Omega-3 Organic Low-fat Milk that "supports brain health," with 32 mg of DHA from algal oil per cup.

Milk has little or no naturally occurring DHA or EPA (the omega-3s in fish oil). It does have some ALA (a shorter-chain omega-3), though far less



Whole wheat and white flour plus 3½ teaspoons of sugar in each 200-calorie pastry.



Each cup has 60 mg of omega-3s. A 6 oz. serving of salmon has 800 to 3,000 mg.

Maybe that's why companies are branching out beyond the heart.

"Omega-3/DHA & 4 nutrients to support brain & body," says the label of Minute Maid Pomegranate Blueberry Flavored Blend of 5 Juices. Despite the name, the "blend" is mostly apple and grape juice, with 50 mg of DHA from algal oil per cup.

"DHA is a key building block in the brain," says the label. That may sound like DHA is a memory or IQ booster, but the claim is a classic "structure-or-function" one that requires little or no evidence.

So far, DHA and EPA haven't seemed to slow memory loss.¹¹⁻¹³ The VITAL trial is testing fish oil on memory, the risk of a first heart attack or stroke, and other outcomes, but results won't be available until 2017.

As for "eye health," the Age-Related Eye Disease Study 2 (AREDS2) found that a daily dose of EPA (350 mg) plus DHA (650 mg) failed to slow the progression of macular degeneration in people who already had the disease.¹⁴

than canola or soybean oil has.

What's more, there isn't much evidence that ALA prevents heart disease more than other unsaturated fatty acids.

And in recent clinical trials, even EPA and DHA haven't lowered the risk of a second heart attack or stroke in people who have already had one.^{9,10}



A smidgen of DHA makes apple and grape juice look healthy.

But none of that stops companies from flogging omega-3s.

“ALA Omega-3,” says the box of Kellogg’s new FiberPlus Antioxidants Chocolatey Trail Mix Chewy Bars.

Each 180-calorie bar (with 320 mg of ALA) is mostly oats, sugar, peanuts, almonds, crisp rice (sugar plus rice flour), and oils like palm kernel. The fiber includes processed corn fiber, and the antioxidants are the vitamin E and zinc that Kellogg adds.



ALA from flaxseed is less promising than EPA and DHA from fish oil.

“Good source of protein, fiber & ALA omega-3,” says the box of Barilla Plus multigrain pasta, which has about 200 mg of ALA from flaxseed in each 210-calorie cup of cooked pasta. (A tablespoon of canola or soy oil has about 1,000 mg of ALA.)

“I once asked someone from Barilla why they sell pasta like this,” says NYU’s Marion Nestle. “He said, ‘We have to because of the competition.’”

And because people put it in their shopping carts.

“Why buy a plain, ordinary food if you can get a superfood?” asks

Nestle. “It’s all about marketing.”

Her advice: “Eat real food. It may have to be cooked, it’s not as sweet, and it’s not advertised. But you’re better off with the original food with all the nutrients and fiber that it comes with.” 🍌



Omega-3, fiber, and antioxidant claims make a sugary bar look good.

- 1 J. Acad. Nutr. Diet. 112: 1356, 2012.
- 2 Nutr. Res. 29: 100, 2009.
- 3 Appetite 57: 38, 2011.
- 4 Food Funct. 2: 72, 2011.
- 5 J. Nutr. 143: 473, 2013.
- 6 Appetite 52: 416, 2009.
- 7 Appetite 66: 75, 2013.
- 8 Am. J. Clin. Nutr. 93: 756, 2011.
- 9 N. Engl. J. Med. 368: 1800, 2013.
- 10 Arch. Intern. Med. 172: 686, 694, 2012.
- 11 Neurol. 71: 430, 2008.
- 12 Am. J. Clin. Nutr. 91: 1725, 2010.
- 13 JAMA 304: 1903, 2010.
- 14 JAMA 309: 2005, 2013.

Gluten-Free? Yes. Good for You? No.

After even a short stroll through the grocery store, no one could blame you for thinking that everyone should be on a gluten-free diet.

In fact, gluten-free foods are critically important for people who have been diagnosed with celiac disease (see June 2014, cover story). For them, the surge in gluten-free foods is a boon, even if some are gluten-free versions of cookies, cakes, and other junk food.

But millions of others avoid gluten (a protein in wheat, barley, and rye) because they think it might help them lose weight or have less GI distress, or because, as the woman in a *New Yorker* cartoon explained to a friend, “I have no idea what gluten is, either, but I’m avoiding it, just to be safe.”

For them, gluten-free junk is, well, junk. Take Udi’s Gluten Free Moist & Tasty Cinnamon Rolls. They’re basically tapioca starch, brown rice flour, oil, and sugar—about seven teaspoons of sugar in each 300-calorie iced roll.

Whole Foods has an entire line of Gluten Free Bakehouse sweets. A single one of its Almond Scones has enough rice flour, butter, heavy cream, sugar, and other ingredients to supply 390 calories and 12 grams (half a day’s worth) of saturated fat.

Then there’s Glutino, which sells gluten-free Toaster Pastries (think Pop-Tarts), Chocolate Vanilla Creme Cookies, Baked Potato Crisps, and Pretzels (including some coated with “yogurt” or “chocolate,” which means they’re essentially coated with sugar and palm kernel oil). Most are basically corn starch, tapioca starch, white rice flour, and potato starch.

Think you’ll lose weight eating gems like those? Don’t count on it.



Mostly tapioca flour, rice flour, shortening, and sugar. Gluten-free. Vitamin-free.



Good luck losing weight on these 300-calorie iced cinnamon rolls.



No nuts, soy, milk, or gluten... because it’s mostly sugar and tapioca syrup.



No gluten because it’s mostly corn meal and oil.



Salt Controversy?

Excess salt is harmful, concluded a recent study, while a second study—which had serious shortcomings—

suggested that too *little* salt can also be dangerous.

An estimated 1.65 million deaths from cardiovascular disease worldwide in 2010 were caused by sodium intakes over 2,000 milligrams a day, according to the first study. It used the results of 103 trials to estimate the effect of sodium on blood pressure, and data on 1.38 million people to estimate the effect of blood pressure on strokes and heart attacks.

The second study reported an increased risk of strokes, heart attacks, and deaths in people who had not just higher sodium intakes (over 6,000 mg a day) but also in those who had lower intakes (below 3,000 mg a day). However, as the authors acknowledged, “reverse causation” couldn’t be ruled out as a cause of the higher risk in people who ate less salt. In other words, it’s possible that eating less salt didn’t *cause* their illness, but that illness caused them to eat less salt. (People who are sick often eat less food.) As the authors stated, there is no evidence that any of the 102,000 participants—60 percent of whom were from China, India, and other lower-income countries—were intentionally eating less salt to protect their health.

The American Heart Association, which stands by its advice to limit sodium to 1,500 mg a day, has documented potential flaws in studies like the second one. Unfortunately, an editorial published with the studies—written by a former consultant to the Salt Institute (and expert witness for the tobacco industry)—did not cite those flaws.

What to do: Cut back on salt in prepared foods and the salt shaker.

N. Engl. J. Med. 371: 612, 624, 677, 2014. *Circulation* 129: 1173, 2014.

Extra Pounds & Cancer

Excess weight may increase the risk of more cancers than previously thought, says the largest study to look.

Researchers tracked 5.24 million people for an average of 7½ years. The results:

- Heavier people had a higher risk of leukemia as well as cervical, colon, gallbladder, kidney, liver, ovarian, uterine, and postmenopausal breast cancers than leaner people.

- Heavier people had a higher risk of esophageal cancer (after researchers took smoking into account).

- Heavier people had a *lower* risk of premenopausal breast cancer and total prostate cancer. (The study didn’t look separately at advanced prostate cancers, which were linked to excess weight in other studies.)

- Underweight people had a higher risk of lung, mouth, and throat cancer than leaner people, but the link was due to smoking, since it was absent in those who had never smoked.

What to do: To lose or avoid gaining weight: exercise, drink calorie-free beverages, and don’t overeat.

Lancet 384: 755, 2014.

Curb Carbs

Cutting carbs can help you lose extra pounds.

Researchers assigned 148 obese men and women—they averaged about 215 pounds—to either a “low-carb” diet (goal: less than 40 grams of carbs a day) or a “low-fat” diet (goal: less than 30 percent of calories from fat).

After one year, people on the low-carb diet had lost more weight (12 pounds) than those on the low-fat diet (4 pounds). That’s not surprising, given that people in the low-carb group made bigger changes.

They cut carbs from 242 grams a day to 127 grams (and cut fat from 76 grams to 69 grams). The low-fat group cut fat from 35 percent of calories to 30 percent (from 81 grams a day to 52 grams).

What’s more, triglycerides were lower and HDL (“good”) cholesterol was higher in the low-carb group, but there was no difference between groups in waist size, blood pressure, blood sugar, insulin, or LDL (“bad”) cholesterol.

What to do: If you want to lose weight, try cutting carbs (see Dec. 2013, cover story). But don’t load up on fat (or anything else). Odds are, people who cut carbs also cut fat (and calories) because many carbs—like pizza, french fries, burritos, pad thai, sandwiches, lasagna, cookies, cakes, ice cream, doughnuts, chips, popcorn, pastries, and chocolate—are also high in fat. 🍌

Ann. Intern. Med. 2014. doi:10.7326/M14-0180.



When you cut carbs, you often cut fat and calories with them.

S-W-E-E-E-T!

Your guide to sugar substitutes

BY LISA Y. LEFFERTS & MICHAEL F. JACOBSON

Who doesn't enjoy something sweet every now and again? While small amounts of added sugars (high-fructose corn syrup, table sugar, evaporated cane juice, etc.) are perfectly safe, most of us eat far too much of them.

Consuming too much, especially in beverages, is linked to an increased risk of obesity, heart disease, diabetes, metabolic syndrome, gout, and tooth decay. And, of course, sugar provides "empty calories"—devoid of vitamins, minerals, protein, and other nutrients.

So it's no surprise that the per capita use of sugar substitutes climbed by 25 percent over the last decade in the United States. In 2012, the sugar substitutes in our foods had the sweetening power of more than 26 pounds of sugar for every American man, woman, and child.

Most sugar substitutes go into diet drinks, but companies have started adding them to everything from cereal and popcorn to english muffins, yogurt, and frozen dinners. And some of those foods aren't labeled "diet" or "sugar-free." The only way to know is to check the ingredient list. (You can even find sugar substitutes in toothpaste, mouthwash, chewable vitamins, and over-the-counter and prescription drugs.)

The \$64,000 question: Are sugar substitutes safe? The answer: some are, and some aren't. See the table at right for a quick take.

One point to keep in mind: sugar substitutes do not appear to cause weight gain, as some critics charge.

In double-blind studies that randomly assign people to drink beverages sweetened with either sugars or sugar substitutes (usually aspartame), people typically gain weight on the sugary drinks, and either lose or stay the same weight on the diet drinks.

That's not to say that diet drinks are magical weight-loss potions. And if you figure that you can have that 1,500-calorie plate of Pad Thai because you've swapped a 150-calorie Coke for a calorie-free Diet Coke, don't expect good news from your bathroom scale.

The bottom line for your belly: diet drinks beat sugar drinks. So does unsweetened tea or coffee, skim milk, or, say, a quarter cup of juice mixed with seltzer. But your best bet is water (plain or bubbly).

Here's the lowdown on low- or no-calorie sweeteners.

Lisa Y. Lefferts is a senior scientist at the Center for Science in the Public Interest (CSPI), the nonprofit publisher of Nutrition Action Healthletter. Michael F. Jacobson is CSPI's executive director.



Always wanted to be the sugar substitute expert on your block? Here's everything you need to know in 28 pages. If it can be used instead of sugar, you'll find out about it in *Sweet Nothings*. How much do we use? What foods is it in? And, most importantly, what does our *Chemical Cuisine* booklet say about its safety?

Order at www.NutritionAction.com, or send a check for \$12 (payable to Nutrition Action) to Nutrition Action—Sweet Nothings, Suite 300, 1220 L St. NW, Washington DC 20005. Include your shipping address and, if possible, your subscription ID number (from the top left corner of your mailing label).

The Substitute Scoop

Here are the major sugar substitutes that are used in the United States. See pages 10 and 11 for more details.

Among its Brand Names		Our Rating
ARTIFICIAL SWEETENERS		
Acesulfame-potassium	Equal Original Equal Spoonful	Avoid
Advantame		Safe
Aspartame	AminoSweet Equal Next Equal Original Equal Spoonful NutraSweet	Avoid
Neotame	Newtame	Safe
Saccharin	Equal Next Equal Saccharin Sweet'N Low	Avoid
Sucralose	Equal Sucralose Splenda	Caution

"NATURAL" HIGH-POTENCY SWEETENERS		
Monk fruit extract	Monk Fruit in the Raw Nectresse	Caution
Stevia leaf extract	Pure Via SweetLeaf Truvia	Safe

SUGAR ALCOHOLS		
Erythritol	Nectresse Truvia Wholesome Sweeteners Zero	Safe in moderation
Hydrogenated starch hydrolyzate		
Isomalt		
Lactitol		
Maltitol		
Mannitol		
Sorbitol		
Xylitol		

Notes: **Equal Original** and **Equal Spoonful** contain aspartame and acesulfame-potassium. **Equal Next** contains aspartame and saccharin. **Nectresse** contains erythritol and monk fruit extract. **Truvia** contains erythritol and stevia leaf extract. Packets and multi-serve packages of tabletop non-caloric sweeteners contain bulking agents like dextrose, maltodextrin, or even sugar.

Safe

Advantame

What it is: A chemical cousin of aspartame and neotame that is 20,000 times sweeter than sucrose (table sugar). It was approved by the Food and Drug Administration in 2014.

Safety: Two key safety studies on advantame were flawed. However, because the additive is so sweet, the minuscule amounts that will be added to foods are almost certainly safe.

Neotame

Among its brand names: Newtame.

What it is: A chemical cousin of aspartame and advantame that is 8,000 times sweeter than sugar, so only minuscule amounts are used to sweeten foods. Although neotame was approved by the FDA in 2002, it is rarely used.

Safety: Animal and human studies have raised no safety concerns.

Stevia Leaf Extract

Among its brand names: Pure Via, SweetLeaf, Truvia. When used as an ingredient, typically called stevia leaf or stevia leaf extract, but may also appear as steviol glycosides, rebiana, rebaudioside A, reb A (or D, F, M, or X), or stevioside.



What it is: Highly purified extracts from the leaves of a shrub that traditionally grew in South America and that is now grown commercially in California and Asia. Stevia leaf extract is 200 to 300 times sweeter than sugar.

Safety: In the 1990s, the FDA rejected the industry's attempt to add whole-leaf stevia or crude stevia

extracts to foods because it was concerned about stevia's potential impact on blood sugar, sperm count, kidney function, and the cardiovascular system.

However, in the early 2000s, manufacturers began developing highly purified stevia extracts, which they declared were safe. The FDA hasn't objected to their use.

In two studies in rats, the stevia leaf extract stevioside didn't increase the risk of cancer. In several other rat studies, a different extract (rebiana, which is also called rebaudioside A or reb A) didn't impair fertility or lead to offspring with developmental problems. But in several of 31 genotoxicity studies, stevia-related compounds caused changes in DNA. Because of that, the FDA should have required companies to also test stevia leaf extracts for cancer in mice. That never happened.

Safe in Moderation

Sugar Alcohols



Sugar alcohols aren't sugar and they're not alcohol. Most are made by adding hydrogen molecules to sugars. The added hydrogen makes it harder for them to be absorbed in the digestive

tract, which means they deliver fewer calories. But reduced absorption has a downside: sugar alcohols can cause GI distress if you eat too much.

On the plus side, sugar alcohols (along with non-caloric sweeteners) don't promote tooth decay. And they're absorbed slowly and don't cause blood sugar to increase rapidly, which makes them better than sugar for people with diabetes.

Erythritol: It's 60 to 70 percent as sweet as sugar. Erythritol is unique among sugar alcohols. It has far fewer calories than the others (so little that a teaspoon has less than 1 calorie), and most of it is excreted unchanged in the urine. The other



sugar alcohols end up in the large intestine, which can cause diarrhea and gas. However, eating more than about 50 grams of erythritol may cause nausea.

Xylitol, maltitol, sorbitol, mannitol, isomalt, lactitol: They vary from roughly as sweet as sugar (xylitol) to about a third as sweet (lactitol). (We've listed them in descending order of sweetness.)

Consuming even as little as 20 grams a day of some of these sugar alcohols may lead to bloating, gas, and diarrhea. (Sensitivities vary widely, though, and some people develop a tolerance to GI distress.)

The FDA requires foods "whose reasonably foreseeable consumption may result in a daily ingestion of 20 grams of mannitol" to carry this warning: "Excess consumption may have a laxative effect." The same goes for foods that could lead someone to consume 50 grams of sorbitol in a day. Warnings aren't required on foods that contain other sugar alcohols, but they should be.

Nutrition Facts labels don't have to list the amount of sugar alcohols per serving unless the package makes a sugar or sugar alcohols claim ("Sugar Free," for example).

Caution



Monk Fruit Extract

Among its brand names: Monk Fruit in the Raw, Nectresse.

What it is: Several intensely sweet compounds called mogrosides that are extracted from a fruit (Luo Han Guo) that has been eaten in China for at least several hundred years.

(The extracts contain no fruit.) Monk fruit extract is about 200 times sweeter than sugar.

Safety: While monk fruit extract may turn out to be perfectly safe, it has never been subjected to long-term safety tests in animals. Without that, we can't give it a clean bill of health.

Sucralose

Among its brand names: Equal Sucralose, Splenda.

What it is: Sucrose with three of its hydrogen-oxygen groups replaced with chlorine atoms. It's about 600 times sweeter than sugar.

Safety: Sucralose had been considered safe until an independent Italian laboratory announced at a conference in 2012 that the sweetener caused leukemia in mice that were exposed to it from before birth. The study hasn't yet been published.

Some researchers—a few of them funded by the sugar industry—contend that sucralose can alter the beneficial bacteria and enzymes in the gut, which could lead to GI and other problems. But the evidence supporting their claims is weak.



Counting Calories

- Some sugar substitutes, like **saccharin**, have no calories because they're not burned for energy in the body's cells.
- Others, like **aspartame**, are so intensely sweet that it takes only minuscule amounts to sweeten foods. That makes them essentially calorie-free.
- **Sugar alcohols** have roughly half the calories of sugar because they're not absorbed as well as sugar from the intestinal tract. Erythritol has much less (no more than one-twentieth the calories), and xylitol has somewhat more (about three-quarters as many calories).
- Sugar substitutes that are sold as **tabletop (packaged) sweeteners** are usually combined with fillers like (safe) starch or maltodextrin, or even sugar, which have a few calories.

Avoid



Acesulfame-Potassium

Among its brand names: Equal Original, Equal Spoonful.

What it is: A synthetic compound. Acesulfame-potassium is about 200 times sweeter than sugar. It is generally used together with sucralose or aspartame to cut costs and reduce bitterness.

Safety: Tests conducted 40 years ago were of mediocre quality. Two of them suggested that acesulfame-potassium caused cancer in rats. The FDA should require manufacturers to conduct high-quality studies of acesulfame-potassium or withdraw its approval.

Aspartame

Among its brand names: Amino-Sweet, Equal Next, Equal Original, Equal Spoonful, NutraSweet.

What it is: A synthetic compound. Aspartame is about 200 times sweeter than sugar.

Safety: Aspartame tops the list of sugar substitutes to avoid. In three independent studies, it caused cancer in rats and mice. And in one human study, drinking at least one diet soda a day was linked to a slightly increased risk of non-Hodgkin lymphoma and multiple myeloma cancer in men (but not in women). That study wasn't designed to prove cause and effect, though. Even so, those studies should be reason enough for the government to eliminate aspartame from the food supply.

In addition, in 2010 a Danish study found a link between consuming diet soda and preterm delivery. Acesulfame-potassium and aspartame were the most widely used sweeteners in diet soft drinks sold there. The results need to be confirmed by additional studies, though.

And some people report that aspartame causes headache or dizziness.



Saccharin

Among its brand names: Equal Next, Equal Saccharin, Sweet'N Low, Sweet Thing.

What it is: A synthetic compound. Saccharin, which is used mostly as a tabletop sweetener, is 350 times sweeter than sugar.

Safety: In studies on rodents, saccharin has caused bladder cancer, especially in males, as well as other types of cancer in males and females. The best human study also found a link with bladder cancer. Despite the safety controversies, saccharin remains legal. 🍷





Salad for Supper

BY KATE SHERWOOD

Salad for supper? No. You haven't been bad. Each of these three salads is hearty enough, nutritious enough, and delicious enough to be the main (and only) attraction for lunch or dinner. The grain and protein can be warm or cold. For the most intense flavor, toss with the dressing just before you're ready to eat. 🍴

Got a question or suggestion? Write to Kate at healthycook@cspinet.org.

For each person, use:

- ½ cup cooked **whole grain** and/or **beans**
- ½ cup cooked **protein** (chicken, seafood, tofu)
- 1 cup cooked and/or raw **vegetables**
- 2 cups **salad greens** or 1 cup **cooked greens**
- 2 Tbs. **dressing**

Seafood Salad

- pearl barley or white beans
- salmon, tuna, or shrimp
- roasted peppers
- steamed green beans
- mixed salad greens
- mustard vinaigrette*

Per person: calories 530 | total fat 31 g
sat fat 4.5 g | sodium 400 mg
carbs 35 g | fiber 8 g | protein 27 g

BASIL VINAIGRETTE

- 2 cups basil leaves
- 1 small clove garlic
- 2 Tbs. red wine vinegar
- ¼ cup grated parmesan
- ½ tsp. kosher salt
- ¼ cup extra-virgin olive oil

Combine ingredients in a blender.
Yields 10 Tbs.

MUSTARD VINAIGRETTE

- 2 Tbs. whole-grain mustard
- 2 Tbs. mayonnaise
- 2 Tbs. red wine vinegar
- ½ tsp. honey
- ½ tsp. kosher salt
- ¼ cup extra-virgin olive oil

Whisk ingredients in a bowl.
Yields 10 Tbs.

SESAME DRESSING

- 2 Tbs. rice or cider vinegar
- ¼ cup unsweetened apple sauce
- 2 Tbs. reduced-sodium soy sauce
- 1 Tbs. toasted sesame oil
- 3 Tbs. canola oil

Whisk ingredients in a bowl.
Yields 12 Tbs.

Chicken Salad

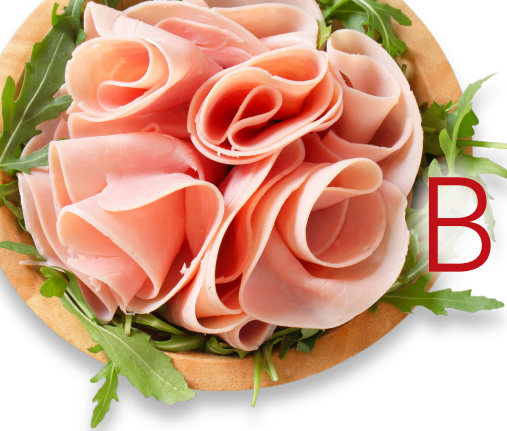
- quinoa
- sautéed or roasted chicken
- roasted broccoli
- cherry tomatoes
- arugula
- basil vinaigrette*

Per person: calories 410 | total fat 20 g
sat fat 4 g | sodium 400 mg
carbs 4 g | fiber 5 g | protein 30 g

Tofu Salad

- brown rice and edamame
- tofu
- roasted scallions
- shredded carrot
- steamed kale
- sesame dressing*

Per person: calories 400 | total fat 19 g
sat fat 1.5 g | sodium 330 mg
carbs 41 g | fiber 8 g | protein 19 g



BUY THE SLICE?

Top picks in the lunch meat aisle

BY JAYNE HURLEY & BONNIE LIEBMAN

Talk about confusing. A “natural” or “no nitrites added” lunch meat could deliver as much nitrite as a lunch meat that lists sodium nitrite in the ingredients list. And a “lower sodium” lunch meat could have more salt than a lunch meat that makes no sodium claims.

Labels will say whatever it takes to get your attention. Forget the malarkey. Here are 10 things to consider before you break out the mustard.

The information for this article was compiled by Paige Einstein.

1 Know your serving. Cutting back on salt? Which Oscar Mayer lunch meat is lower: the Smoked White Turkey (250 milligrams of sodium) or the Shaved Smoked White Turkey (400 mg)?

The answer may seem obvious, but there’s a catch: ounce for ounce, the shaved turkey has less sodium. It just looks like it has more because its label uses a 2 oz. serving, while the non-shaved uses 1 oz.

It’s not just Oscar. Many packages use a 1 oz. serving—about one ordinary slice—even though 2 oz. is the official serving size. (That’s why our chart uses the number of slices closest to 2 oz.)

Bottom line: before you compare lunch meats, make sure you’re looking at the same serving size.

2 Put a lid on sodium. It’s tough to find lower-salt lunch meats. A 2 oz. serving of sliced chicken, turkey, ham, beef, or bologna typically has around 500 to 700 milligrams of sodium.

That’s a third of a day’s worth (in just 50 to 100 calories’ worth of food). Salamis can hit 1,000 mg.

And that’s before the 300 to 400 mg of sodium in two slices of whole wheat bread, the 100 mg in every tablespoon of mayo or teaspoon of dijon mustard, or the 150 mg in each slice of cheese. Got your blood pressure cuff handy?

Our Better Bites have no more than 360 mg of sodium in a 2 oz. serving.

To find the lowest-salt meats, look for:

■ **“Healthy” in the name.** Healthy Ones, Celebrity Healthy, and Market Pantry (Target) Healthy hover around 350 mg of sodium per 2 oz.

■ **“No nitrites added.”** “No nitrites or nitrates added” lunch meats from smaller brands—like Applegate, Simply Balanced (Target), and New Hope Provisions and Wellshire (both sold only at Whole Foods)—typically have 250 to 350 mg of sodium. The “uncured” hams from those companies have around 450 mg (Wellshire’s has 350 mg).

“No nitrites added” or “no artificial preservatives” lines from bigger companies—like Hillshire Farm Naturals, Hormel Natural Choice, and Oscar Mayer Selects—will set you back around 450 to 550 mg.

■ **“Lower sodium.”** Lower-sodium brands vary. Columbus Reduced Sodium and Dietz & Watson Gourmet Lite turkey breasts have only 220 mg of sodium, and they’re big on taste. In contrast, Lower Sodium turkey breasts from Hillshire Farm Deli Select have about 420 mg and Sara Lee’s range from 390 to 470 mg. (Sara Lee Lower Sodium Honey Roasted Turkey Breast’s 300 mg of sodium is for a small, two-slice, 1.6 oz. serving. Eat three slices, and you hit 470 mg.)

For the *lowest*-sodium lunch meats, ask the deli counter to slice up a “no salt added” turkey breast or roast beef from a brand like Boar’s Head. A 2 oz. serving has only around 50 mg of sodium.

3 Don’t be fooled by “no nitrites added.” Many companies cure their cold cuts by adding sodium nitrite, which may raise the risk of colorectal and other cancers, in part by forming N-nitroso compounds in the gut. (See *Nutrition Action*, June 2013, cover story.)

Should you ditch them for lunch meats that have “no nitrites or nitrates added” or “no artificial preservatives,” or that are “natural” or “uncured”? Not necessarily.



Kirkland (Costco) Oven Roasted Turkey Breast. Succulent, with a fresh-carved flavor.



Simply Balanced (Target) Black Pepper Turkey Breast. A bold pepper taste...and not a hint of dryness.



Wellshire Black Forest Uncured Ham. Hints of maple and honey. Mmm.



Dietz & Watson London Broil Roast Beef. Bold and beefy. A staff favorite.



Columbus Seasoned Roast Beef. You'll never believe it's the lowest-sodium roast beef we found.



Dietz & Watson Gourmet Lite Breast of Turkey. Lower in sodium...but not taste.



Applegate Uncured Turkey Bologna. A tad too much sodium, but more protein than other bolognas. Delish.



Tofurky Peppered Deli Slices. Packs a serious peppery punch. Layer with crunchy veggies.

Companies that make those claims usually add celery (or some other vegetable) juice or powder that is rich in naturally occurring nitrates, which are converted to nitrites—either in the food or when they react with bacteria in our bodies. (Some companies—like Oscar Mayer—add “cultured” celery juice, in which the nitrates have already been converted to nitrites.)

The take-home message: assume that meats with added celery or vegetable juice or powder end up with about as much nitrite as meats with sodium nitrite. (Both groups are marked with a ♦ in our chart.) That includes every corned beef, pastrami, salami, most hams, and roughly half of the roast beefs and turkey breasts we found.

The remaining meats (marked with a ❖) aren't as clear cut. They may end up with as much nitrite—from ingredients like sea salt, evaporated cane juice, potato starch, natural flavorings, or seasonings—as meats that are cured with sodium nitrite. Or they may have less. We simply can't say for sure, and companies wouldn't tell us.

That's why we had no *Best Bites*, and why we used only sodium, protein, and saturated fat to choose our *Better Bites*.

4 Skip smoked meats. Compounds called PAHs (polycyclic aromatic hydrocarbons), which form in smoked meat, may raise the risk of cancer. So if you like smoke, you may want to look for meats with added smoke *flavor*, which should have much lower levels of PAHs than smoked meats. Check the ingredients list.

5 Don't forget protein. People who are middle-aged or older need to get enough protein to avoid losing muscle.

A 2 oz. serving of turkey or chicken breast, ham, or roast beef typically has 10 to 12 grams of protein. But most bolognas and loafs have just 6 grams—less than what's in the two slices of whole wheat bread you'd slap the meat on. Our *Better Bites* have at least 8 grams.

6 Minimize sat fat. Our *Better Bites* have no more than 2 grams of saturated fat in 2 oz. That's not hard to find in sliced turkey, chicken, ham, roast beef, corned beef, or pastrami. But it's rare in a bologna or salami. Two ounces of Oscar Mayer Beef Bologna or Hard Salami, for example, have 6 or 7 grams of sat fat—about a third of a day's worth.

Instead, try Applegate Uncured Turkey Bologna. It has just 1½ grams of sat fat, it delivers more protein (9 grams) than most bolognas, and its sodium (400 mg) isn't off the charts. Applegate Uncured Turkey Salami has more sodium (480 mg), but it's got less sat fat (½ gram) than any salami we found.

7 Avoid sugar if you want. Lunch meats have no naturally occurring sugar, and many have no added sugar either. But some “honey,” “maple,” or “brown sugar” varieties have as much as four grams—about a teaspoon. (It could appear in the ingredients list as evaporated cane syrup, fruit juice concentrate, dextrose, or some other name that may not sound like sugar.) If you want to avoid all sugar, look for “0 grams” in the “Sugars” line on the Nutrition Facts label.

8 You can trust “gluten-free” claims. Need to avoid gluten? No problem. We found dozens of “gluten-free” lunch meats. According to the U.S. Department of Agriculture, which regulates meats, that means they have less

than 20 parts per million of gluten.

Isn't *all* meat gluten-free? Yes. But lunch meats could pick up trace amounts from other foods that are being made in the same plant or from ingredients from outside suppliers. So if you have celiac disease, you're safest with a lunch meat that makes a “gluten-free” claim. (See *Nutrition Action*, June 2014, cover story.)

9 Consider the animals. We found five companies—Aidells, Applegate, New Hope Provisions, Simply Balanced, and Wellshire—that make “no antibiotics” claims for all of their lunch meats. All also say that the animals that go into their products are “humanely” or “sustainably” raised, many on “family farms.” Those are all pluses.

10 Try meatless. With veggie “meats,” you don't have to worry about nitrites (though some are smoked). And the sodium is typically 300 to 400 mg per serving. What's more, all the ones we found have at least as much protein as meat (13 to 16 grams in 2 oz.), thanks to their wheat gluten and/or soy protein.

The problem: many people find veggie meats chewy or odd-tasting. That's why we couldn't, in good conscience, give *Best Bites* to those that were low enough in sodium and sat fat and high enough in protein. But if you like them, consider our *Better Bites your Best Bites*.

Tip: try zingier varieties like Tofurky Peppered, and layer them with crispy vegetables like cucumber, lettuce, and radishes, with a swipe of mayo or mustard. Or try Beyond Meat Chicken-Free Strips. They're not slices, but they may please some palates. (Don't forget the crispy veggies.) 🥒

OUT TO LUNCH MEAT

Better Bites (✓) have no more than 360 mg of sodium and 2 grams of saturated fat, and at least 8 grams of protein, in the number of slices closest to 2 oz. Meats with a ♦ are cured with sodium nitrite or vegetable juice or powder and may be smoked. Meats with a ❖ have no added sodium nitrite or vegetable juice or powder and aren't smoked, but could have as much nitrite as traditionally cured meats. Products are ranked from least to most sodium, then most to least protein, then least to most sat fat.

	Calories	Sat Fat (g)	Protein (g)	Sodium (mg)
Chicken & Turkey (No. of slices closest to 2 oz.)				
✓♦ Columbus Reduced Sodium Turkey Breast (2)	60	0	13	220
✓❖ Dietz & Watson Gourmet Lite Turkey Breast (2-3) ¹	50	0	11	220
✓❖ Kirkland (Costco) Oven Roasted Turkey Breast (2)	80	0	16	290
✓♦ Columbus Rotisserie Style Chicken Breast (2)	70	0	12	330
✓♦ Kirkland (Costco) Honey Roasted Turkey Breast (2)	90	0	16	340
✓♦ Healthy Ones Thin-Sliced—Honey Smoked Turkey Breast or Rotisserie Style Chicken Breast (6) ¹	60	0.5	9	340
✓❖ New Hope Provisions Turkey Breast (2-3) ¹	50	0	12	360
✓❖ Applegate Chicken or Turkey Breast—Herb or Roasted (2-3) ¹	50	0	11	360
✓♦ Applegate Smoked Chicken or Turkey Breast (2-3) ¹	50	0	11	360
✓❖ Dietz & Watson Herbed Turkey Breast (2)	50	0	11	360
✓❖ Simply Balanced (Target) Turkey Breast (NA) ¹	50	0	11	360
✓♦ Market Pantry (Target) Healthy Turkey Breast (NA) ¹	60	0	9	360
❖ Dietz & Watson Gold'n Brown Turkey Breast (3)	60	0	12	370
❖ Sara Lee Lower Sodium Oven Roasted Turkey Breast (2)	60	0	12	390
♦ Healthy Ones Thin-Sliced Oven Roasted Turkey Breast (6)	60	0.5	9	390
♦ Oscar Mayer Shaved White Turkey (6) ¹	60	0.5	7	400
♦ Aidells Smoked Chicken Breast (2) ¹	60	0	12	410
♦ Hillshire Farm Deli Select Lower Sodium Turkey Breast (NA) ¹	60	0	10	420
♦ Oscar Mayer Selects Chicken or Turkey Breast (6) ¹	60	0	10	430
❖ Applegate—Barbecue Chicken Breast or Honey & Maple Turkey Breast (2-3) ¹	60	0.5	11	440
♦ Land O'Frost Simply Delicious Chicken or Turkey Breast (6) ¹	60	0	10	450
♦ Sara Lee Lower Sodium Honey Roasted Turkey Breast (3)	90	0	15	470
❖ Sara Lee Oven Roasted Chicken or Turkey Breast (2) ¹	60	0.5	12	470
♦ Hormel Natural Choice Deli Chicken or Turkey Breast (3) ¹	60	0	11	470
❖ Hormel Natural Choice Flame Seared Turkey Breast (NA) ¹	60	0.5	12	480
♦ Oscar Mayer Chicken or Turkey—except Carving Board, Deli Fresh, Selects, or Shaved (2) ¹	60	0.5	8	500
♦ Oscar Mayer Chicken or Turkey Breast—Carving Board (NA) or Deli Fresh (6) ¹	50	0	10	520
♦ Hillshire Farm Chicken or Turkey Breast—Deli Select (NA) or regular (3) ¹	50	0	9	600
Corned Beef, Pastrami, & Roast Beef (No. of slices closest to 2 oz.)				
✓❖ Columbus Seasoned Roast Beef (2)	80	1	13	190
✓❖ Wellshire Top Round Roast Beef (NA)	70	1.5	9	230
✓♦ Wellshire Uncured—Cooked Pastrami or Corned Beef (NA) ¹	50	1	9	250
✓❖ Dietz & Watson London Broil Roast Beef (NA)	70	1	12	270
✓❖ Applegate Roast Beef (2-3) ¹	80	1	12	320
✓❖ Trader Joe's Seasoned Roast Beef (NA)	80	0.5	13	330
✓♦ Trader Joe's Uncured Pastrami (NA)	80	0.5	13	340

	Calories	Sat Fat (g)	Protein (g)	Sodium (mg)
♦ Columbus Pastrami (2)	80	1	12	390
❖ Land O'Frost Simply Delicious Beef (6)	60	0.5	10	400
♦ Oscar Mayer Roast Beef—Deli Fresh or Selects (6) ¹	60	0.5	10	480
❖ Hormel Natural Choice Deli Roast Beef (4)	60	1	11	520
❖ Hillshire Farm Deli Select Roast Beef (NA)	70	1	11	550
♦ Hillshire Farm Deli Select Pastrami (NA)	60	0.5	10	620
Ham (No. of slices closest to 2 oz.)				
✓♦ Market Pantry (Target) Healthy Honey (NA)	70	0.5	10	330
✓❖ Wellshire Uncured (NA) ¹	100	1	17	350
✓♦ Healthy Ones Thin-Sliced (6) ¹	60	0.5	9	350
✓♦ Kirkland (Costco) Black Forest (NA)	70	1	11	360
♦ Celebrity Healthy (2) ¹	50	0	10	380
♦ Dietz & Watson Gourmet Lite Cooked (3)	50	0.5	10	410
♦ Sara Lee Lower Sodium (3) ¹	80	0	12	450
♦ Hillshire Farm Deli Select Lower Sodium (NA) ¹	80	1	10	450
♦ Land O'Frost Simply Delicious (6) ¹	60	0	11	460
♦ Simply Balanced (Target) Uncured (NA) ¹	70	1	10	460
♦ Applegate or New Hope Provisions Uncured (2-3) ¹	60	0.5	10	480
♦ Hillshire Farm Naturals Honey Roasted (3)	70	0.5	9	500
♦ Oscar Mayer Chopped (2) ¹	100	1	8	500
♦ Oscar Mayer—Deli Fresh or Selects (6) ¹	60	0.5	9	510
♦ Hormel Natural Choice—Deli (4) or Flame Seared (NA) ¹	60	0.5	11	520
♦ Oscar Mayer Carving Board (NA)	60	0	11	630
♦ Oscar Mayer—except Carving Board, Chopped, Deli Fresh, or Selects (3) ¹	60	0.5	11	650
♦ Hillshire Farm—Deli Select (NA) or regular (3) ¹	60	0.5	9	650
♦ Fiorucci Hot Capocollo (NA)	160	4	14	1,200
Bologna & Salami (No. of slices closest to 2 oz.)				
♦ Oscar Mayer Light Bologna (2)	120	2	6	340
♦ Oscar Mayer Turkey Bologna (2)	100	2	6	380
❖ Applegate Uncured Turkey Bologna (2-3)	90	1.5	9	400
❖ Applegate Uncured Turkey Salami (2-3)	60	0.5	10	480
♦ Oscar Mayer Cotto Salami (2) ¹	130	4	8	480
♦ Oscar Mayer Light Beef Bologna (2)	120	3	6	480
♦ Oscar Mayer Bologna (2)	160	5	6	480
♦ Oscar Mayer Beef Bologna (2)	180	7	6	480
♦ Hebrew National Lean Beef Bologna (4)	90	2	9	530
♦ Columbus Reduced Sodium Italian Dry Salame (NA)	200	5	14	580
♦ Columbus Salame (NA) ¹	170	4.5	13	920
♦ Applegate Uncured Genoa Salami (NA) ¹	200	6	16	960
♦ Oscar Mayer Hard Salami (6)	200	6	14	1,010
Vegetarian (No. of slices closest to 2 oz.)				
✓♦ Tofurky Hickory Smoked Deli Slices (5)	100	0	13	300
✓ Lightlife Smart Deli—Baked Ham or Roast Turkey (4) ¹	90	0.5	13	300
✓ Tofurky Deli Slices—except Hickory Smoked or Roast Beef (3-5) ¹	100	0.5	13	310
✓ Yves Veggie Cuisine—Deli Turkey or Roast Without the Beef (4) ¹	110	0	16	350
Tofurky Roast Beef Deli Slices (5)	100	0	13	380
✓ Better Bite. ¹ Average. NA Number not available.				
Daily Limits (for a 2,000-calorie diet): Saturated Fat: 20 grams. Sodium: 1,500 milligrams. Protein Daily Target: 75 grams.				
Source: company information. The use of information from this article for commercial purposes is strictly prohibited without written permission from CSPI.				

RIGHT STUFF

OKAY, LETS!



It's not often that you get to sample a brand new vegetable. Not just new to you, but new, period. Drumroll, please. Join us in welcoming **Kalettes** to the world.

The new arrival, which is a cross between kale and brussels sprouts, is the product of more than a decade of breeding by the British company Tozer Seeds.

They're cute as all get-out, and they're more than delish: "A fresh fusion of sweet and nutty," says the Kalettes website.

With parents like kale and brussels sprouts, it's no surprise that 1½ cups of raw Kalettes—they should cook down to about a cup—delivers more than a day's worth of vitamin K, 40 percent of a day's vitamin C, and around 10 percent each of a day's calcium and vitamin B-6. And while there are no numbers yet, you can bet on getting a decent dose of potassium, magnesium, and folate. All for just 50 calories.

Kalettes should be available at most Trader Joe's or Whole Foods. Or check Twitter or Facebook to see if they've made it to another store near you.

What to do with your Kalettes? As little as possible.

Cut in half, toss with a bit of olive oil, then roast (at 400°F), cut side down, until they're tender-crisp and the leaves start to brown, about 10 minutes. (You can get the same intense flavor by sautéing in a very hot pan with a little olive oil.) Or sauté them with sliced apples and onion and top with walnuts.

How's *that* for fast food?

kalettes.com — (805) 922-6300

FOOD PORN

GIGUNDA

"It's a dream come true for peanut butter lovers: two gigunda **REESE'S Peanut Butter Cups** in one enormous package!" says **The Hershey's Store** website.



Go ahead. Pinch yourself. You're not dreaming. Each package really does contain two half-pound Peanut Butter Cups, each of which delivers half a day's calories (1,150), more than a whole day's saturated fat (24 grams), and an estimated 29 teaspoons of added sugar (roughly five days' worth for women and a three-day supply for men). That makes each monster cup the equivalent of about 11 regular Reese's cups.

If you think a half-pound cup is too much to eat at one sitting, fire up YouTube. You'll find a slew of videos of people scarfing down a gigunda in minutes; one guy took just 1 minute and 28 seconds. Yay.

Expecting to shed the extra calories at the gym? You'd need to lift weights for five hours straight to burn them off. Maybe that's why Hershey suggests that you "incorporate them into your strength training regimen." (Not a bad idea; you could eat one cup with your right hand while doing biceps curls with the other cup in your left hand.)

Of course, if you quit after, say, a mere two hours, your body will have to stash the leftovers in a batch of shiny new fat cells. And that *won't* be a dream.

The half-pound cups "will delight the most serious peanut butter lover," says Hershey. Perhaps. But, at \$14.95 for a two-pack, they're sure to delight the company's bean counters a whole lot more.

hersheysstore.com — (877) 798-2226

dish OF THE MONTH



Curried Chicken Salad

Combine ¼ cup plain yogurt, ¼ cup mayonnaise, 1 tsp. curry powder, and ¼ tsp. salt in a large bowl. Toss with 2 cups cooked chicken, 1 cup halved red grapes, 1 diced apple, and ½ cup diced celery. Serve over salad greens.

Makes 4 servings.

quick tip

The low-moisture, higher-sodium content and low pH of hard cheeses (like cheddar and parmesan) creates a hostile environment for bugs like *Listeria*. Soft cheeses (like brie and camembert) don't have that kind of protection.