

# Today's Dietitian

The Magazine for Nutrition Professionals

## HOW to TALK to CONSUMERS ABOUT "ADDED SUGAR"



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**HANDOUT INSIDE**

**Added Sugars ...  
With Added Benefits**



## How to Talk to Consumers About “Added Sugar”

The nutrition facts panel (NFP) is being updated for the first time since its introduction in the early 1990s.<sup>1</sup> The most talked-about change will be the inclusion of added sugar information to the label. There has been a lot of controversy regarding the addition of the added sugar line on the NFP, with food and nutrition professionals questioning whether providing consumers with added sugar values will help them to make more healthful food choices or create more confusion. Regardless of where you stand on the issue, the law has been passed, and by July 26, 2018, most food companies will be required to have the updated label on their product.<sup>1</sup> This is an exciting time for RDs and RDNs, as it is an opportunity to educate consumers on how to correctly read the new NFP and, more importantly, how to make well-informed food choices.

### What Are Added Sugars, and Why Are They Being Added to the NFP?

According to the FDA’s final rule, added sugars are defined as free monosaccharides and disaccharides that are added during the processing or preparation of the food. Additionally, sugars that are packaged as isolated sources of sugars will be labeled as added sugars.<sup>1</sup> Added sugars include ingredients such as sugar, brown sugar, honey, maple syrup, agave nectar, high fructose corn syrup, concentrated fruit or vegetable juices, nectars, etc.<sup>1</sup> While added sugars are chemically identical to sugars naturally found in foods like

fruits and dairy products, they provide an isolated calorie source without other beneficial nutrients.<sup>2</sup> With more than one-third of American adults categorized as obese,<sup>3</sup> sources of empty calories, such as added sugars, are being targeted to decrease calorie consumption. Major sources of added sugars in the American diet include sugar-sweetened beverages, snacks and sweets, and grain products.<sup>2</sup>

Added sugar content is being added to the NFP in hopes that with the new information, consumers will be able to make better food choices.<sup>4</sup> The new NFP will list added sugars in grams per serving, as well as the % DV contained within one serving of the food. The % DV is calculated by dividing the grams of added sugar in one serving of the food by 50 g of added sugar (representing 10% of total daily calories in a 2,000-calorie diet). The DV of added sugar was based on the 2015–2020 Dietary Guidelines for Americans, which, for the first time, set

a quantitative limit for added sugar consumption of less than 10% of total calories consumed.<sup>5</sup> The recommendation is based on food pattern modeling and intake data indicating that it is challenging to meet all nutrient needs in diets containing more than 10% of calories from added sugars.<sup>5</sup> This recommendation was made for the general population and may not be appropriate for all individuals. After looking at a patient’s energy intakes and expenditures, RDs can determine a more individualized goal for their patients. The goal is not to eliminate all added sugars from the diet but rather to minimize the consumption of empty calories and not to exceed their energy needs.

### Function of Sugar

With the addition of added sugars to the NFP, consumers may be confused or concerned to find added sugars in products such as whole grain bread, tomato sauce, and salad dressings. Because these foods do not taste sweet, it may come as a surprise to consumers that they contain added sugars. However, sugar has a variety of functions beyond adding sweetness.<sup>6</sup> These functions include the following:

- Sugar can round flavors of tart, bitter, or acidic foods. This helps to balance flavors and soften strong flavors and contributes to mouth-feel. This can help consumers enjoy nutrient-dense foods that they may not have otherwise chosen.
- Sugar influences the texture of food products, providing body and bulk to many products, creating a soft, tender texture in baked products and a smooth texture in frozen products.

- Sugar aids in the fermentation process of yeast-leavened breads and some fermented foods.
- Sugar is essential to Maillard browning and caramelization reactions to produce the expected appearance and flavors in many foods including breads and baked products.
- Sugar can protect the color, shape, nutrients, and phytonutrients of fruits and vegetables during the freezing and canning process.
- Sugar can enhance the shelf life of many products by binding water, preventing a product from becoming stale. Extended shelf lives decrease food waste, food costs, and limit environmental impact of shipping food more frequently.
- Sugar has a preservative effect, inhibiting microbial growth in jams, jellies, and preserves and extending shelf life of baked goods, so it also decreases food waste.

Understanding the multifunctional characteristics of sugar provides some clarity on why it is so challenging for food manufacturers to remove or decrease the added sugar in products. Much research and development is needed to find the right ingredients to mimic the appearance, texture, and taste of the same product that was made with sugar. “Low-sugar” or “no added sugar” solid foods typically have long lists of ingredients. Unlike liquid or semisolid foods, the calorie reduction may be inconsequential because when water is not an option, the addition of carbohydrate, protein, or fats will contribute to the total calories.<sup>6</sup>

RDs will be a resource for the public and media as they search for answers about added sugars. This can be a great opportunity to educate the public about the functions of added sugars in their foods. Consumers can make more educated food decisions with increased ingredient knowledge and awareness.

### Reading the New NFP

The added sugar line will be located within the carbohydrate category on the NFP. The sugar line will now be titled “Total Sugars,” and the added sugar information will be indented below the Total Sugars line written as “Includes X g Added Sugars” with a % DV included on the right side of the panel.<sup>7</sup> The Total Sugars line reflects all the sugar in the product per serving and is the sum of sugars naturally contained within the food and those that have been added. The indented Added Sugars line merely reflects the grams of added sugar per serving. Studies have shown that many consumers are inclined to add the added sugars to the total sugars, so RDs must help consumers understand how to correctly interpret the updated NFP.<sup>8,9</sup>

If the product contains less than 1 g of added sugar per serving, the label can read “Includes 0 g added sugars,” but must have the phrase “Not a significant source of added sugars” on the bottom of the NFP.<sup>1</sup> If there is less than 0.5 g of added sugar per serving, the label can read 0 g added sugar without any additional phrase at the bottom of the label.<sup>1</sup> This may create

some confusion for consumers who read the ingredient list and may see a source of added sugar listed as an ingredient in a product that has 0 g added sugars. RDs should inform patients and clients that the product may still use a small amount of sugar but that the amount is insignificant in the serving size listed. However, consumers must be aware that a product with no added sugar does not mean the consumer can eat as much as they would like. Consumers should still pay attention to the calories and serving sizes to remain within their energy needs.

Another major change to the NFP will be updated serving sizes. The new serving sizes will more appropriately represent the amount consumers are generally eating in one sitting, rather than the amount consumers should be eating in one sitting.<sup>7</sup> Because added sugars are related to portion sizes, nutrition educators will need to update their serving size knowledge when educating consumers on appropriate sugar contents for certain product categories. Education on appropriate portion sizes of different foods will also help consumers maintain their calorie goals.

In the upcoming years before all food manufacturers are required to display the updated label format, the grocery store will contain a combination of old and new labels. This may prove to be challenging when consumers are comparing labels and deciding which products to purchase. RDs will need to educate patients and clients how to effectively read and compare the two labels during this time.

### Helping Consumers Make the Right Choice

The FDA decided to include added sugars on the NFP to aid consumers in making more informed food choices and ultimately improve the nutrient intake profile of Americans.<sup>7</sup> However, making food choices based on one nutrient alone leads to an unbalanced diet and is generally ineffective, such as the case with focusing on total fat reductions. Many nutrient-dense foods contain added sugars for functionality or to enhance palatability. Foods like breakfast cereals, whole grain bread, flavored milk, flavored yogurt, cranberry juice, and oatmeal are commonly prepared with added sugars, but that does not negate the fact that these products are high in essential nutrients. In fact, consumption of ready-to-eat cereal, a major target for added sugar criticism, is associated with a more nutritionally complete diet.<sup>10</sup> If the added sugars were removed, many consumers may choose to omit these nutrient-dense foods from their diets, leading to unintended consequences. For example, a study found that when schools removed chocolate milk as a beverage option with school lunch, the students purchased less milk, threw away more milk, and purchased fewer school lunches.<sup>11</sup> As dietitians, we need to educate consumers to look at the nutrient profile of a food, learn how to balance the intake of nutrients with added sugars when making food choices, and decide when the addition of added sugars are worthwhile.

Without consumer education, the negative portrayal of added sugars in the media may lead consumers to make

unfavorable substitutions to avoid substantial amounts of added sugars. For example, a switch from a bowl of breakfast cereal with skim milk to a bagel with cream cheese could be more detrimental to that consumer, especially if he or she does not consume dairy foods for the remainder of the day. While the bagel and cream cheese will have less added sugars, it is likely higher in calories and lower in important nutrients, such as calcium and vitamin D. By educating consumers to look at the entire nutrient package of the food, rather than just focusing on the added sugar content, dietitians can empower consumers to make healthful substitutions to their diet.

On a physiological level, eating is an opportunity to consume nutrients and energy to help our body function. But on a human level, eating is an enjoyable social experience. Added sugars and occasional indulgences can fit into a healthful diet as long as the consumer is making other nutrient-dense food choices and is not exceeding his or her calorie needs. Added sugar labeling is just one tool consumers can use to improve their diet. Education on making nutrient-dense food choices, appropriate portion sizes, and reading NFPs are fundamental to helping consumers consume a nutrient-rich diet while remaining within their calorie needs.

## Conclusion

It is the job of all RDs to be well informed of the changes to the NFP, especially in regard to added sugar labeling. The media, patients, friends, and neighbors will be looking to RDs as they try to understand the upcoming changes and apply the new information when making food choices. As always, dietitians should provide consumers with the scientific evidence, allowing them to make informed decisions. Added sugars are a source of calories, but many products containing added sugars can also be nutritious. Consumers need to look at the entire nutrient composition of the food product as a part of their daily intake to decide whether they should add the product to their shopping cart. While some foods with added sugars like soda or candy might be an occasional indulgent choice, foods that make important nutrient contributions such as sweetened fruits, whole grain breads and cereal products, and flavored yogurts can fit into consumers' pantries and balanced diet patterns.

## References

1. Food and Drug Administration, HHS. Food Labeling: Revision of the Nutrition and Supplement Facts Labels. Final Rule. *Fed Regist*. 2016;81(103):33741-33999.
2. United States Department of Agriculture. Scientific Report of the 2015 Dietary Guidelines Advisory Committee. <http://www.health.gov/dietaryguidelines/2015-scientific-report/PDFs/Scientific-Report-of-the-2015-Dietary-Guidelines-Advisory-Committee.pdf>. Published February 2015. Accessed May 31, 2015.
3. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011–2012. *JAMA*. 2014;311(8):806-814.
4. Department of Health and Human Services. Food Labeling: Revision of the Nutrition and Supplement Facts Labels; Proposed Rule. *Fed Regist*. 2014;79(41):11880-11987.
5. United States Department of Health and Human Services, United States Department of Agriculture. Dietary Guidelines for Americans 2015–2020. 8th ed. <http://health.gov/dietaryguidelines/2015/guidelines/>
6. Goldfein KR, Slavin JL. Why sugar is added to food: food science 101. *Compr Rev Food Sci Food Saf*. 2015;14(5):644-656.
7. US Food and Drug Administration. Changes to the Nutrition Facts Label. <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm385663.htm#highlights>. Accessed September 29, 2016.
8. Laquatra I, Sollid K, Smith Edge M, Pelzel J, Turner J. Including “added sugars” on the nutrition facts panel: how consumers perceive the proposed change. *J Acad Nutr Diet*. 2015;115(11):1758-1763.
9. United States Food and Drug Administration. *Experimental Study on Consumer Responses to Nutrition Facts Labels With Declaration of Amount of Added Sugars*. College Park, MD; 2015.
10. Albertson AM, Affenito SG, Bauserman R, Holschuh NM, Eldridge AL, Barton BA. The relationship of ready-to-eat cereal consumption to nutrient intake, blood lipids, and body mass index of children as they age through adolescence. *J Am Diet Assoc*. 2009;109(9):1557-1565.
11. Hanks AS, Just DR, Wansink B, et al. Chocolate milk consequences: a pilot study evaluating the consequences of banning chocolate milk in school cafeterias. *PLoS One*. 2014;9(4):e91022.

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# Added Sugars ... With Added Benefits

**When reducing added sugars in your diet, don't miss out on the benefits of these foods!**

While the Dietary Guidelines for Americans recommend limiting added sugars to less than 10% of your total calorie intake, remember to consider the entire nutritional quality of the food.<sup>1</sup> Don't miss out on foods that may provide important nutrients despite having added sugars. Here's a snapshot of some of the foods that may have added sugars—but also have **added benefits!**

Food	Added Benefit
Dairy, including milk and yogurt	Dairy is an excellent source of protein, calcium, potassium, and vitamin D. Including low-fat or nonfat dairy products as part of a healthful eating pattern can help reduce risk for diabetes, cardiovascular disease (CVD), and obesity, as well as improve muscle and bone health. <sup>1</sup>  A small amount of added sugars can also help children drink more milk. <sup>2</sup>
Fermented dairy	Beyond the benefits of nonfermented dairy, fermented dairy such as Greek and regular yogurt offer probiotics that may help support a healthy gut and immune system. <sup>3</sup>
Canned, frozen, and dried fruit	Fruit contributes important nutrients to the diet, including fiber, potassium, folate, and vitamin C. <sup>1</sup>  Fruits in all forms deliver important nutrients and other compounds such as antioxidants and bioactives, which can protect against CVD. <sup>1,4</sup>
Cranberry juice cocktail, dried cranberries, and cranberry sauce	Cranberry juice is commonly known for its urinary tract health benefits, but all cranberry products are also a rich source of unique bioactives that deliver added health benefits. <sup>4</sup> These naturally occurring compounds have been associated with antibacterial, antiviral, antimicrobial, anticarcinogenic, anti-inflammatory, and antioxidant properties. <sup>4</sup>  The 2015–2020 Dietary Guidelines for Americans agrees that there is room in a healthful diet for nutrient-dense foods (such as cranberry or rhubarb) that are naturally low in sugar and typically sweetened to make them palatable. <sup>1</sup>
Whole grain breads, cereals, and other grain and bran products	Whole grains are a source of nutrients including dietary fiber, iron, zinc, manganese, folate, magnesium, copper, thiamin, niacin, vitamin B <sub>6</sub> , phosphorus, selenium, riboflavin, and vitamin A. <sup>1</sup>  Research suggests that whole grain intake may be protective against cancer, CVD, diabetes, and obesity. <sup>5-7</sup> A small amount of sugar may encourage intake to help people reach their whole grain goals. <sup>5-7</sup>
Oatmeal and ready-to-eat cereals	A recent science review showed that despite higher sugar intakes for cereal consumers, they had better intakes of fiber folate, calcium, vitamin B <sub>6</sub> , magnesium, and zinc. <sup>5</sup>

## REFERENCES

1. UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES, UNITED STATES DEPARTMENT OF AGRICULTURE. DIETARY GUIDELINES FOR AMERICANS 2015–2020. 8TH ED. [HTTP://HEALTH.GOV/DIETARYGUIDELINES/2015/GUIDELINES/](http://health.gov/dietaryguidelines/2015/guidelines/)
2. FAYET-MOORE F. EFFECT OF FLAVORED MILK VS PLAIN MILK ON TOTAL MILK INTAKE AND NUTRIENT PROVISION IN CHILDREN. *NUTR REV*. 2016;74(1):1-17.
3. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS. FAO FOOD AND NUTRITION PAPER 85: PROBIOTICS IN FOOD: HEALTH AND NUTRITIONAL PROPERTIES AND GUIDELINES FOR EVALUATION. [FTP://FTP.FAO.ORG/DOCREP/FAO/009/A0512E/A0512E00.PDF](ftp://ftp.fao.org/docrep/fao/009/A0512E/A0512E00.PDF). UPDATED 2006.
4. BLUMBERG JB, CAMESANO TA, CASSIDY A, ET AL. CRANBERRIES AND THEIR BIOACTIVE CONSTITUENTS IN HUMAN HEALTH. *ADV NUTR*. 2013;4(6):618-632.
5. ERICKSON J, SLAVIN J. TOTAL, ADDED, AND FREE SUGARS: ARE RESTRICTIVE GUIDELINES SCIENCE-BASED OR ACHIEVABLE? *NUTRIENTS*. 2015;7(4):2866-2878.
6. BORNEO R, LEÓN AE. WHOLE GRAIN CEREALS: FUNCTIONAL COMPONENTS AND HEALTH BENEFITS. *FOOD FUNCT*. 2012;3(2):110-119.
7. SLAVIN J. WHOLE GRAINS AND HUMAN HEALTH. *NUTR RES REV*. 2004;17(1):99-110.