



# New standards for sweetness

It's hardly news that consumers are trying to limit (or avoid) sugar in their diets, as many people believe they are consuming too much on a daily basis. At the same time, sweetness is a taste many enjoy... so efforts to reduce sugar intake are not always successful – and certainly fraught with complexity, especially given that many people made allowances for indulgence during the pandemic.

These conflicting attitudes have created a challenging environment for product developers, who have faced the task of reducing sugar and calories in products, while also trying to maintain sensory appeal and replicate sugar's varied functionality. But these difficulties have also ushered in a new era in which consumers have a changing relationship with sweetness, together with new sweetener solutions offering multiple benefits and allowing them to enjoy sweet taste without compromise.

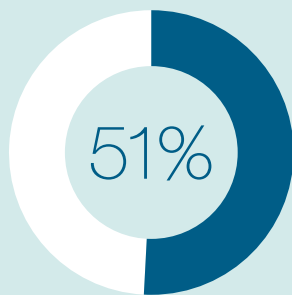
Sugar has certainly been on the minds of consumers for a number of years. According to the most recent data from the International Food Information Council (IFIC), a fairly consistent three in four Americans say they are trying to limit or avoid sugar (although this is a few points lower than from those who said this in 2019 and 2020).<sup>1</sup> Many consumers perceive sugar intake as related to matters of health and wellness, with respondents in the IFIC survey noting they most often limit or avoid sugar to

avoid gaining weight (41%), to improve their diet in general (38%), to lose weight (36%) or to prevent a future health condition (35%). While these respondents most often define healthy food as fresh (37%), nearly as many (32%) noted low sugar as a key attribute of a healthy product.

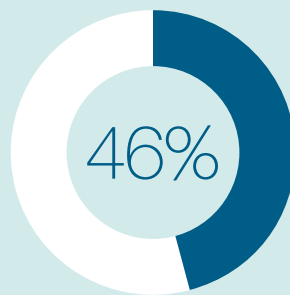
As a result, consumers are taking a variety of actions to reduce their sugar intake. According to a recent survey from FONA International, the most common solution is to drink water instead of caloric beverages. Other common actions include eliminating certain foods and beverages and reducing their caloric intake, while about one in three women (40%) use the Nutrition Facts panel to choose products with less sugar.<sup>2</sup>

Consumers have become more educated about what's in their foods, which has prompted them to look deeper at ingredient lists to identify products they want to avoid.

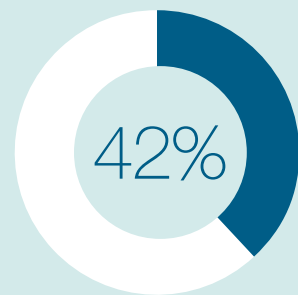
**Research from The Hartman Group identified specific ingredients that are on the radar:**



**of consumers say they are decreasing high-fructose corn syrup**



**of consumers say they are avoiding artificial sweeteners**



**of consumers say they are avoiding or decreasing refined sugar**

Source: The Hartman Group Infographic: "How Sweet it is: Our Complex Relationship with Sugar and Sweeteners." November 11, 2021.

Consumers are also honing in on the sugar content on a product’s Nutrition Facts Panel, with added sugars of particular concern.

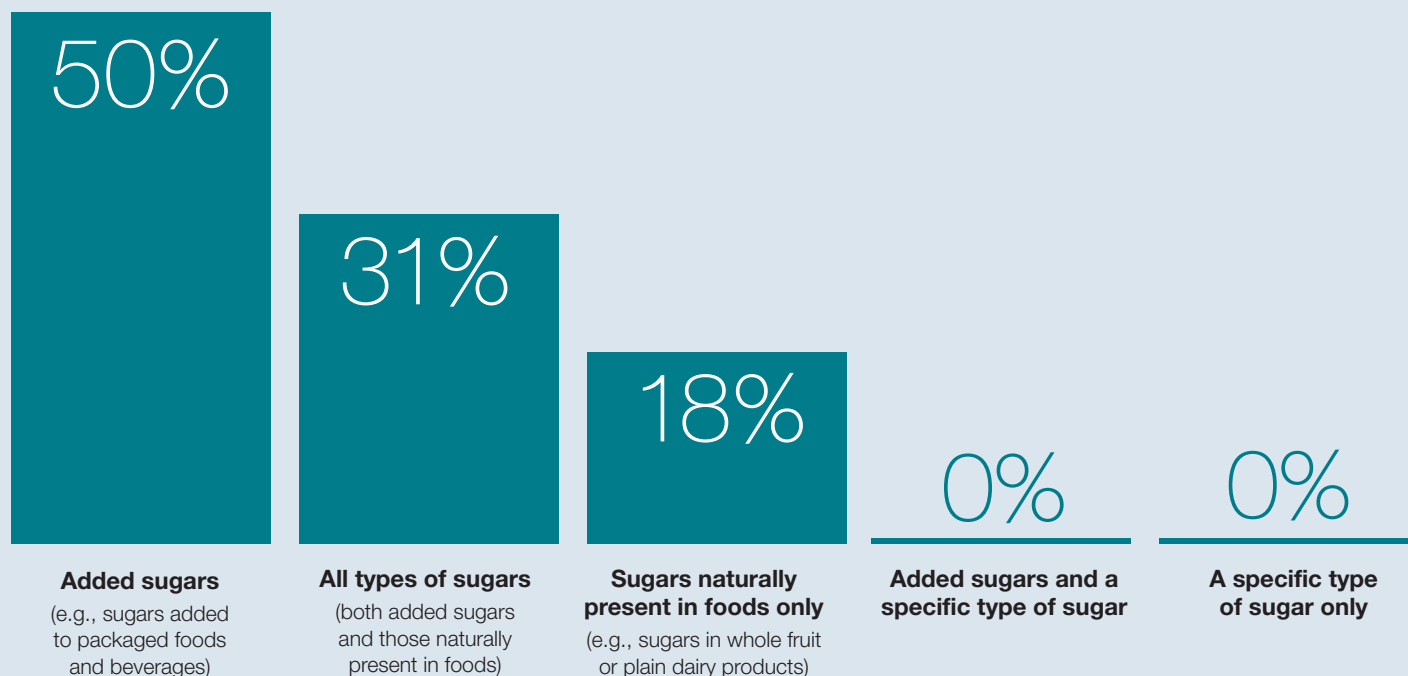
These increasingly discerning attitudes about sugar have definitely supported innovation in the food and beverage space. Brands have responded to market demand with new products boasting significant sugar reduction, which have been made possible by a new generation of alternative sweeteners offering both functionality and sweetness.

At the same time, consumers have become increasingly willing to accept a wide range of sweeteners – especially as these ingredients are included in products that tout additional benefits, according to insights from the report, “Ten Key Trends in Food Nutrition and Health 2022,” from *New Nutrition Business*. While it suggests several strategies for positioning products with a

new take on sweetness, one of the key competitive advantages it noted is being combined with other key ingredients offering additional health benefits. For example, a “less sugar” positioning, coupled with added protein or digestive health, is a combination that is gaining traction in the market.<sup>3</sup> An emerging opportunity, the report stated, is with products positioned as offering better blood sugar management, as growing numbers of people note rising diabetes rates, which impacts more than 37 million Americans.<sup>4</sup>

Such trends have certainly prompted product developers to utilize a growing crop of next-generation sweeteners to reduce or replace sugar content in their products.<sup>5</sup> Given that consumers are increasingly wary of traditional alternative sweeteners, they have also turned overwhelmingly to the emerging portfolio of non-artificial alternative sweeteners to enhance this positioning.

### Types of sugar being limited/avoided (among those limiting or avoiding sugar)



Source: International Food Information Council (IFIC). “2022 Food and Health Survey.”

## Inspired sweetness

Although there is a growing list of zero-calorie alternative sweeteners on the market, stevia is among the most accepted and well-known. It has also led the way in terms of great-tasting sugar reduction in the category. Derived from the leaves of the stevia plant, stevia-based sweeteners are almost 200 times sweeter than sugar, and can offer zero calories in a variety of products.

Although stevia has seen increasing use in products, it does still present occasional formulation challenges. Over the past several years, stevia suppliers have worked hard to address these issues and developed a number of stevia-based sweetener solutions for a wider range of applications. Early stevia leaf extracts utilized Rebaudioside A (one of the most abundant sweet components in the stevia leaf), but newer solutions feature Rebaudioside M and D, the sweetest and rarest of these compounds, to replace sugar at up to 100% while also offering a more rounded taste profile.

Despite these important strides, use of high-intensity, stevia-based sweeteners at greater concentrations can leave a lingering aftertaste, and still create some solubility challenges. Formulation experts have worked with stevia ingredients and flavor modifiers to create a next generation of high-intensity, stevia-based sweeteners.

A prime example is Cargill's EverSweet® stevia sweetener + ClearFlo™ natural flavor. The new system allows for full-sugar reduction and is especially designed for product applications where taste, texture goals and solubility are critical – such as coffees, energy drinks and alcoholic beverages.

Other important sweetener options that are contributing to innovation in sugar reduction include erythritol, a zero-calorie bulk sweetener which occurs naturally in berries and some vegetables, and is commercially available via fermentation. Erythritol has the highest digestive tolerance of the sugar polyols and is commonly paired with stevia ingredients to help mask aftertaste.

Undoubtedly, as reduced-sugar products continue to meet consumer expectations for both taste and additional health benefits, it is becoming increasingly likely that less sugar content will become the new norm in new product development.

To learn more about Cargill's full portfolio of solutions for sugar reduction, visit [cargill.com/sugarreduction](https://cargill.com/sugarreduction).

<sup>1</sup> International Food Information Council (IFIC). "2022 Food and Health Survey." <https://foodinsight.org/2022-food-and-health-survey/>

<sup>2</sup> FONA International. "Sugar Reduction in the Food and Beverage Space." February 10, 2022. <https://www.fona.com/articles/2022/02/sugar-reduction-in-the-food-and-beverage-space>

<sup>3</sup> Mellentin, J. "Ten Key Trends in Food, Nutrition and Health 2022." <https://www.new-nutrition.com/keytrend?id=226>

<sup>4</sup> Centers for Disease Control and Prevention. National Diabetes Statistics Report. <https://www.cdc.gov/diabetes/data/statistics-report/index.html>

<sup>5</sup> Ibid.