BioNeutra®

REDUCING SUGAR IN GUMMIES AND CHEWY CANDIES TO DRIVE DEMAND

KEY POINTS

- In 2020, the demand for candy skyrocketed
- Candy consumers are likely to purchase a lower-sugar version of their favorite candy if it provides a similar sensory experience
- However, candy consumers have concerns about the taste and texture of reduced-sugar confectionery applications
- Flavor preferences differ between general candy consumers and those with reduced-sugar diets
- Consumers prefer that reduced-sugar candy taste more like sugar rather than merely having fewer calories

Amid a tumultuous year, demand for candy skyrocketed in 2020 alongside the ongoing trend of consumers reducing the amount of sugar in their diets. As the world locked down, grocery store sales of candy spiked over 16%, according to sales data from the National Confectioners Association.[1] Between March and September 2020, online sales of confectionery products doubled.

Notably, the COVID-19 pandemic occurred during a growth period for non-chocolate candy. Candies other than chocolate, gum, or mints was the fastest growing confectionery category in 2019. Given these concurrent trends, confectionery brands are well positioned to grow sales, especially with new product launches that deliver satisfying sweetness with fewer calories.

However, sugar reduction creates challenges for formulators, particularly in replicating the functional properties of sugar. According to **a new survey from BioNeutra of 615 U.S. adult candy consumers**, 65% said they would be **likely to purchase** a lower-sugar version of their favorite candy if it provided a **similar sensory experience**. However, the data also show that most candy consumers have concerns about the taste and texture of candy made with non-sugar sweeteners.

[1] Based on NCA's analysis of sales performance from March 15, 2020 to August 9, 2020.

Satisfaction with Reduced-Sugar Confections

Sensory experience tops the list of concerns about sugar reduction. Most candy consumers agree that they would be concerned that candy made with sweeteners other than sugar would not have the right texture (51%) or the right level of sweetness (59%), would have an unpleasant aftertaste (60%), or would not taste like candy made with sugar (62%). Addressing these concerns is critical to the success of brands formulating reduced-sugar confectionery applications.

Concerns about candy made with non-sugar sweeteners:

51%	59%	60%	62%
not the right texture	not the right level of sweetness	unpleasant aftertaste	does not taste like candy made with sugar

Source: BioNeutra consumer survey, 2021

Overall, levels of satisfaction are mixed. Younger audiences, for instance, are more likely than average to be **satisfied** with lower-calorie **gummy** candy, as over half of respondents age 18-29 (51%) and age 30-39 (50%) indicated such. They're also much more likely than other age groups to have purchased candy made with a non-sugar sweetener, with 52% of respondents age 18-29 and 49% of those age 30-39 indicating such a purchase in the previous six months.

Formulation issues may be driving the mixed levels of satisfaction, especially for soft, chewy candies. Sugar has a profound effect on taste and texture in these formats. Reducing sugar in gummies and jellies affects chewiness, moisture retention, and sweetness. Stickiness and crystallization challenges can also arise when replacing sugar, resulting in unappetizing textures. For soft, chewy candies, replicating sugar's functionality is as important as selecting preferred flavors for achieving brand loyalty and repeat purchases.

Flavor Preferences Among Consumers Seeking Sugar Reduction

In BioNeutra's survey of U.S. candy consumers, respondents were asked to indicate the candy flavors they consumed in the previous six months. Popular non-fruit flavors in **soft, chewy candy** include vanilla (26%), coffee (24%), and mint (22%). In fruit flavors, 43% of overall respondents indicated that they would consider strawberry flavors in **soft, chewy candy**. One-third or more said they would consider cherry (36%), apple (35%), orange (34%), or watermelon (33%).

*20 flavors in soft, chewy candy that candy consumers **would consider***

Flavor	Candy consumers	Reduced-sugar diets
Strawberry	43%	39%
Cherry	36%	28%
Apple	35%	36%
Orange	34%	36%
Vanilla	33%	33%
Watermelon	33%	33%
Pineapple	32%	30%
Blueberry	32%	32%
Banana	32%	30%
Raspberry	31%	30%
Mango	31%	34%
Coffee	29%	37%
Tropical fruit	29%	25%
Peach	29%	21%
Lemon	28%	30%
Toffee	27%	30%
Honey	27%	30%
Grape	27%	24%
Coconut	26%	30%
Mint	25%	24%

Of particular interest to brands are **consumers who have reduced sugar** in their diets. These candy consumers are **more likely** than average to believe it is **very difficult** to keep their daily added sugar intake within recommended guidelines. The group is **more likely** than average to have recently consumed lower-calorie versions of candy. However, the group also shares the average candy consumer's concerns about sensory experience in candy made with alternative sweeteners.

Consumers who have reduced sugar in their diets are much more likely to be **completely satisfied** with current lower-calorie versions of chewy candy (30%, compared to 12% average). This indicates that a significant portion of this subgroup is actively seeking out these lower-calorie versions of candy. Moreover, this subgroup is more likely than the average candy consumer to **strongly agree** that they would be interested in candy that helps control blood sugar levels (47%), reduces feeling of hunger (44%), contains prebiotics (35%), promotes digestive health (43%), or is vegan-friendly (36%).

> Only 30% of candy consumers with reduced-sugar diets are **completely satisfied** with current lower-calorie versions of chewy candy.

Additionally, the data revealed flavor preferences among consumers with reduced-sugar diets. These individuals are more likely than average to **have tried** coffee, honey, tea, and butter flavors in soft, chewy candy. As for fruit flavors, consumers with reduced-sugar diets are also more likely to have recently tried apple, lemon, and pineapple in soft, chewy candy formats.

*Candy consumers who **have tried** these flavors in soft, chewy candy in the previous six months*

Flavor	Candy consumers	Reduced-sugar diets
Apple	27%	33%
Coffee	24%	33%
Honey	20%	27%
Tea	16%	24%
Lemon	20%	23%
Butter	15%	23%
Pineapple	18%	21%

Opportunities in Reduced-Sugar Candy

Opportunities abound for confectionery brands that can successfully deliver on the tastes and textures that consumers expect in their favorite confections. Two-thirds (67%) of surveyed candy consumers said that if they found a version of their favorite candy made with sweeteners other than sugar and that had a **similar taste and texture**, they would buy it more than half the time (35%) or every time (32%). And, when it comes to candy made with sweeteners other than sugar, more consumers say they would prefer it to **taste more like sugar** than those who prefer it to have fewer calories.

Source: BioNeutra consumer survey, 2021

Fortunately, there is a solution that offers sugar-like sweetness and functionality. VitaFiber® IMO from BioNeutra, a natural sweetener made from isomaltooligosaccharide (IMO), has **functionality and flavor similar to sugar**, with nearly half the calories. VitaFiber® IMO is a pure, simple ingredient that is all-natural, gluten-free, Non-GMO Project Verified and free from major food allergens – all attributes that consumers identified as desirable in candy made with sweeteners other than sugar.

Furthermore, VitaFiber® IMO contributes many of sugar's functional properties, such as bulk, browning, binding, and hygroscopicity. The diet-friendly sweetener is available as a syrup or powder. And unlike any other sweetener, VitaFiber® IMO is an entirely plant-based source of **prebiotics**. VitaFiber® IMO is versatile across categories and works as both a standalone sweetener and a bulking agent for blending with high intensity sweeteners.

Additionally, VitaFiber® PLUS is a new ingredient from BioNeutra that utilizes VitaFiber® IMO and a soluble dietary fiber. With this single ingredient, formulators can replace sugar and increase fiber content in applications. And like VitaFiber® IMO, VitaFiber® PLUS has a mild sweetness, has bulk similar to sugar, and is effective for masking the flavor of high intensity sweeteners.

At BioNeutra, science drives our pursuit of excellence and innovation in ingredients for foods, beverages, supplements, and nutraceuticals. That's one reason why VitaFiber® IMO was recognized as a 2020 finalist for Prebiotic Ingredient of the Year by *NutraIngredients USA*. Interested in learning more about how VitaFiber® IMO and VitaFiber® PLUS help frozen dessert formulators meet consumer expectations? **Contact us** to find out more.