

Investigating Nutrition-Related Claims on Fruit Drinks

Fruit drinks are the most popular sugary drink among infants and young children 0 to 5 years old.^{1,2} Experts recommend, however, that infants and young children do not consume fruit drinks,³ based on overwhelming evidence that consumption of beverages containing added sugar can negatively impact children's health by contributing to overweight, obesity, dental caries, and insulin resistance, a precursor to type II diabetes.⁴

One potential reason why parents may purchase fruit drinks for their children is the misperception that fruit drinks are a healthy choice. Research has found **nutrition-related claims*** can lead to misperceptions about a product's healthfulness and increase purchase intentions.⁵⁻⁷ However, no previous studies have examined nutrition-related claims on fruit drinks or their effect on parents' perceived healthfulness and purchase intentions.

To fill this information gap, researchers at the University of North Carolina at Chapel Hill conducted three studies to better understand the presence of claims on fruit drinks and the impact of claims on parents' decisions.

* **Nutrition-related claims:** Marketing elements on fruit drink packages such as statements about a products' nutritional content, healthfulness, or ingredients.

Fruit drinks,
(not to be confused with 100% fruit juice), are fruit-flavored beverages that contain added sugar and/ or non-caloric sweeteners.



1 in 3 kids ages 2–4y and 1 in 2 kids age 5y consume fruit drinks on any given day.^{1,2}

HOWEVER, EXPERTS RECOMMEND:
*Infants and young children should not consume any beverages containing added sugar, including fruit drinks.*³



STUDY 1

How many and what kinds of claims appear on fruit drinks? How do claims relate to the actual nutritional content of the drinks?

STUDY 2

What are the demographic characteristics of people in the U.S. who purchase fruit drinks?

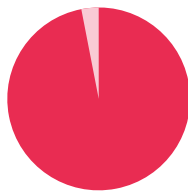
STUDY 3

How do nutrition-related claims impact parents' beverage choices for their young children?

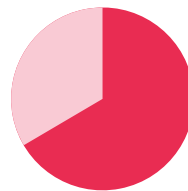
STUDY 1: How many and what kinds of nutrition-related claims appear on fruit drinks? How do claims relate to the actual nutritional content of the drinks?

Researchers analyzed the packaging of all fruit drinks purchased by U.S. households with infants and young children in 2017 (n=2,059).

Nutrition-related claims are ubiquitous.



97% of fruit drinks purchased had at least one and, on average, 3.6 nutrition-related claims on the front-of-package.



33% of fruit drinks purchased had nutrition-related claims regarding the presence or amount of vitamin C.

Implied natural claims are most common.

The most common nutrition-related claims imply the products are natural (e.g., “Natural flavors,” “No preservatives”).



Claims do not signal healthier nutritional content.

Fruit drinks with claims about:

- Being natural
- Containing Vitamin C
- Containing juice or nectar
- Containing fruit or fruit flavor

Were more likely to be:
...and less likely to:

- Higher in total calories
- Higher in grams of total sugar
- Contain non-caloric sweeteners

Fruit drinks with claims about:

- Calories
- Sugar
- Non-caloric sweeteners
- Natural flavors
- Other nutrition-related claims

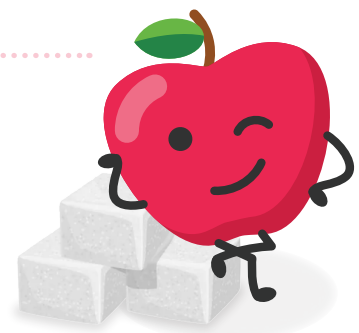
Were more likely to:

- Contain non-caloric sweeteners
- Have fewer total calories (per 100 mL)
- Have fewer grams sugar (per 100 mL)

Fruit drinks often display misleading imagery.

3/4 (76%) of fruit drinks that display fruit imagery on their packaging **do not have fruit or fruit juice as one of the first two ingredients.**

1 in 3 fruit drinks with fruit imagery on their packaging **do not even contain the type of fruit displayed.**



STUDY 2: What are the demographic characteristics of parents in the U.S. who purchase fruit drinks?

Researchers analyzed U.S. household with infants and young children that purchased fruit drinks in 2017 (n=5,233).

U.S. households with infants and young children from socially disadvantaged groups were more likely to purchase fruit drinks.

- Non-Hispanic Black and Hispanic households purchased more fruit drinks than non-Hispanic white households.
- Lower-income households purchased more fruit drinks than higher-income households.
- Households in which the female head of household had less than a college degree (lower education) purchased more fruit drinks than when they had a college degree or greater.



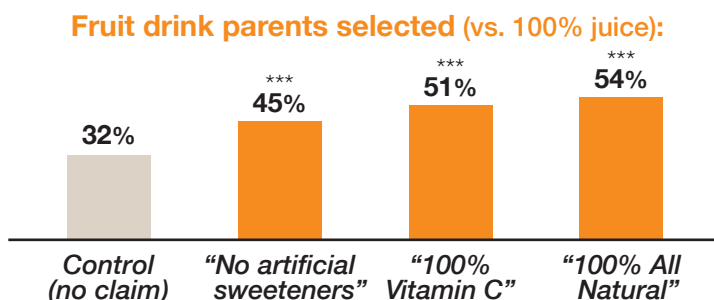
STUDY 3: How do nutrition-related claims impact parents' beverage selection for their young children?

Parents (n=2,218) entered a virtual convenience store and selected either a fruit drink or 100% fruit juice (healthier alternative) for their child. They were randomized to see a fruit drink with either no claim or one nutrition-related claim: “No artificial sweeteners,” “100% Vitamin C daily value,” or “100% All Natural.”

Nutrition-related claims pushed parents toward less healthy drink choices.

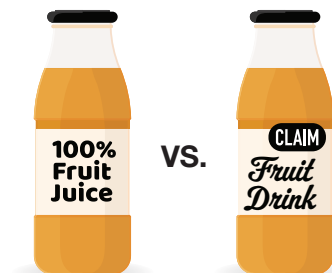
Parents who viewed a nutrition-related claim were more likely to choose the fruit drink for their young child rather than the 100% juice.

*** $p < 0.001$ for claim condition compared to no claim

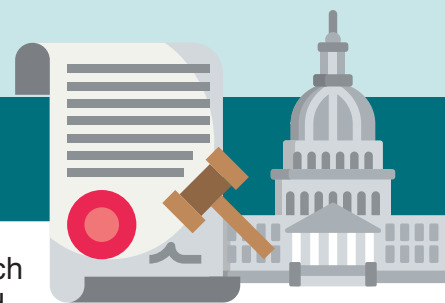


Nutrition-related claims misled parents.

When a fruit drink had a nutrition-related claim, parents were more likely to incorrectly believe it was 100% juice and did not contain added sugar. When informed about how much added sugar and actual fruit juice the fruit drink contained, parents who saw a nutrition-related claim were more likely to think the fruit drink packaging was misleading.



Policy implications



Almost all fruit drinks include nutrition-related claims, which mislead parents regarding the products' healthfulness and influence parents' decisions to provide fruit drink products to their young children. To combat deceptive labeling and promote public health, the Food and Drug Administration (FDA) or Congress could implement such policies as:

- **Front-of-package percent juice declarations**

Fruit drinks are required to declare the % juice near their Nutrition Facts labels, but less than half of consumers report regular use of the Nutrition Facts label when deciding to buy a food product.⁸ Prominent “% juice” declarations on fruit drinks could prevent consumers from misperceiving fruit drinks as 100% fruit juice or not containing added sugars. Products with fruit/juice claims should be required to state “Contains no servings of fruit juice” if juice content is below a specified level.



- **Added sugar warnings**

Warning statements such as “High in added sugars” on fruit drink products that exceed a certain threshold of grams per serving could alert consumers and trigger reformulation. Health warnings on juice drinks decrease perceived product healthfulness and purchase intentions.⁶ Furthermore, such warning labels in Chile have significantly impacted product reformulation.⁹



- **Restrict use of certain nutrition-related claims and imagery**

The FDA could set a maximum amount of added sugars and/or a minimum % juice requirement for beverages to use nutrient-related claims or fruit imagery. The agency has already taken similar actions by establishing disqualifying levels of sodium, fat, and cholesterol above which foods are not permitted to make health claims.¹⁰



Congress should reintroduce and pass the **Food Labeling Modernization Act (FLMA)**,¹¹ a bill to align food labeling laws and regulations with the latest nutrition science and strengthen food labeling requirements to align with national public health nutrition priorities. The FLMA includes various provisions targeting trends in food and beverage marketing that confuse and mislead consumers, including the types of misleading claims that commonly appear on fruit drinks.

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