Section 10-221q of the Connecticut General Statutes specifies five categories of beverages that are allowed for sale to students in public schools, including "beverages that contain **only** water and fruit or vegetable juice and have no added sugars, sweeteners or artificial sweeteners." However, no water and juice beverages actually meet the criteria specified in the statute because all currently available products contain additional ingredients besides water and juice, such as natural flavors, vegetable color, vitamin C, and other nutrients.

Based on the intent of the statute to have beverages available in this category, the state committee responsible for revising the Connecticut Nutrition Standards developed specific standards for the category of water and juice beverages in 2008. These standards took effect on July 1, 2009, and are revised by the committee as needed to reflect current nutrition science. They apply to all water and juice beverages sold to students on public school premises including the cafeteria, vending machines, school stores, fundraisers, and any other sources of beverage sales to students.

Requirements for Water and Juice Beverages

"Water and juice beverages" are beverages made with some portion of 100 percent juice mixed with water. To be allowed for sale to students in schools, all water and juice beverages must meet the criteria below.

- Must contain only water and fruit or vegetable juice and have no added sugars or sweeteners (including artificial, nonnutritive, and natural sweeteners, and sugar alcohols).
- Portion size is limited to 8 fluid ounces for elementary school students and 12 fluid ounces for middle and high school students.
- No more than 100 percent vitamin C.
- No more than 10 percent of calcium, potassium, vitamin D, and fiber (e.g., maltodextrin, inulin).
- No other fortification of vitamins and minerals other than those nutrients listed above.
- No nutrition supplements such as amino acids (e.g., taurine, glutamine, lysine, and arginine), extracts (e.g., green tea extract and gotu kola extract), and herbs or other botanicals (e.g., ginseng and gingko biloba).
- May contain vegetable or fruit extracts only, used for color or flavor, such as pomegranate extract, beet extract, or red cabbage extract.
- May contain natural flavors, as defined by the Food and Drug Administration (FDA) food labeling requirements (Title 21 Code of Federal Regulations Section 101.22) and natural colors (such as fruit or vegetable juice).

Beverages that meet these requirements are listed on the Connecticut State Department of Education's (CSDE) List of Acceptable Foods and Beverages webpage.

Rationale

National science-based nutrition recommendations, such as the *Dietary Guidelines for Americans*, have a basic premise that nutrients should come primarily from foods. Foods contain not only the vitamins and minerals that are often found in supplements, but also hundreds of naturally occurring substances (such as carotenoids, flavonoids, isoflavones, and protease inhibitors) that may protect against chronic health conditions. Consumption of fortified foods and beverages that are not already nutrient rich does not provide the same health benefits as consuming naturally nutrient-rich food sources, such as fresh fruits, vegetables, whole grains, low-fat dairy, lean meats, and legumes.

The Connecticut Nutrition Standards promotes the consumption of needed nutrients through naturally nutrient-rich healthy food choices, not through fortified products that would otherwise have little nutritional value. Significantly fortified products are not approved for use in schools unless they are already nutrient-rich products that are fortified with nutrients at levels based on scientifically documented health needs, such as milk fortified with vitamins A and D, breakfast cereals fortified with iron, orange juice fortified with calcium, soy beverages fortified with calcium, and grain products fortified with folic acid.

The Dietary Guidelines indicates that fortified foods and beverages are only advantageous if they 1) provide additional sources of certain nutrients that might otherwise be present only in low amounts in some food sources; 2) provide nutrients in highly bioavailable forms; or 3) address a documented public health need. Manufacturers often fortify nutrient-poor beverages (such as water and juice beverages) with a variety of vitamins and minerals that do not meet any of these criteria.

The committee allowed water and juice beverages fortified with a small level of calcium, potassium vitamin D, and fiber because these four nutrients were identified as nutrients of public health concern by the 2010 *Dietary Guidelines for Americans*. Since many juices are currently fortified with 100 percent vitamin C, the committee decided to also allow this level in water and juice beverages.

The committee chose not to allow fortification of water and juice beverages with any nutrients that are not based on a documented public health need or that are not commonly found in juice, e.g., niacin, riboflavin, B₆, and B₁₂. The committee also chose not to allow fortification with nutrients that will not be well absorbed by the body in this form, e.g., iron.

Resources

Allowable Beverages in Connecticut Public Schools (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/compfoods/allowable_beverages_public_schools.pdf

Beverage Requirements (CSDE webpage):

https://portal.ct.gov/sde/nutrition/beverage-requirements

Competitive Foods in Schools (CSDE webpage):

https://portal.ct.gov/sde/nutrition/competitive-foods

List of Acceptable Foods and Beverages (CSDE webpage):

https://portal.ct.gov/sde/nutrition/list-of-acceptable-foods-and-beverages

Questions and Answers on Connecticut Statutes for School Foods and Beverages:

https://portal.ct.gov/-/media/sde/nutrition/hfc/questions_answers_connecticut_statutes school foods beverages.pdf

Resources for Meeting the Federal and State Requirements for Competitive Foods in Schools (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/hfc/resources_federal_state_requirements_competitive_foods.pdf

Summary of Smart Snacks Nutrition Standards (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/compfoods/summary_smart_snacks_nutrition_ standards.pdf

For more information, visit the CSDE's Beverage Requirements webpage or contact the HFC coordinator at the Connecticut State Department of Education, Bureau of Child Nutrition Programs, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841. This document is available at https://portal.ct.gov/-/media/sde/nutrition/compfoods/water juice beverages requirements.pdf.

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