



SCHOOL NUTRITION STANDARDS

Evidence-based standards to protect and improve children's health

Foods and beverages offered at school play a critical role in shaping children's health, wellbeing, and their ability to learn. With children consuming as much as one-half of their daily calories during the school day, these meals are a substantial part of their daily nutrition.¹ In 2023, nearly 30 million students participated in the National School Lunch Program (NSLP), with approximately 70% of these children coming from households with low incomes.² Since 2021, rates of food insecurity in the United States have been on the rise, affecting many households with children.³ The U.S. Department of Agriculture (USDA) defines food insecurity as limited or uncertain access to adequate food, a reality faced by 13.8 million children living in food-insecure households in 2023.^{4,5} However, it is insufficient to only ensure children are fed at school. Just as important, if not more, is what children are eating. Nutrition security refers to consistent access, availability, and affordability of foods and beverages that promote well-being and prevent disease.⁶

By law, school meals must meet nutrition standards based on the Dietary Guidelines for Americans (DGA).⁷ Following the Healthy, Hunger-Free Kids Act of 2010 (HHFKA), the USDA issued a rule in 2012 that removed full-calorie soda and other junk food from schools, and in school breakfast and lunch, reduced salt and unhealthy fat while increasing whole grains, fruits, and vegetables.⁸ The 2019 School Nutrition and Meal Cost Study (SNMCS), the first nationally representative study to assess the nutritional quality of school meals after the passage and implementation of HHFKA, and most comprehensive assessment of school meals to date, found that the nutritional quality of school breakfasts and lunches under HHFKA, as measured by the Healthy Eating Index (HEI) score out of 100 points, increased on average by at least 21 points and 23 points, respectively, between school years 2009-10 and 2014-15.⁹ A 2021 study assessing the nutritional quality of major food sources for adults and children found that school meals were the most nutritious, followed by food from grocery stores, other sources, and restau-

rants.¹⁰ Importantly, this analysis also demonstrated that during this period, school meal nutrition quality increased from being equivalent to grocery stores and less than other sources to surpassing all sources.¹¹ In summary, the passage of HHFKA resulted in school meals becoming the healthiest source of food for children.

In April 2024 the USDA published a final rule updating school nutrition requirements in a long-awaited effort to further align these standards with the most recent DGA.¹² In addition to nutrition updates such as reducing added sugar in school breakfasts, the rule provides expanded flexibilities to allow more culturally relevant and traditional Indigenous foods like blue corn and squash, including more opportunities to incorporate plant-based proteins and vegetables.¹³ The final rule also supports school district efforts to procure locally grown, caught, or raised foods.¹⁴

| What are the school meal nutrition standards?

| Reimbursable Meals^{15,16} USDA Meal Pattern Child Nutrition Programs: Meal Patterns Consistent with the 2020-2025 DGA | | | | | |
|---|-------------------------|-------------------|--|-------------------------|-------------------|
| Breakfast (amounts per day) | | | Lunch (amounts per day) | | |
| Fruits: 1 cup | | | Fruits: ½-1 cup | | |
| Grains: 1 oz. eq. <i>80% of which must be whole-grain-rich</i> Schools may offer grains, meat/meat alternates, or a combination of both at breakfast | | | Grains: 1-2 oz. <i>80% of which must be whole-grain-rich</i> Schools tribally operated, operated by the Bureau of Indian Education, and that serve primarily American Indian or Alaska Native children, and all schools in Hawaii and Guam are permitted to serve vegetables to meet the grains requirement | | |
| Fluid milk: 1 cup | | | Fluid milk: 1 cup | | |
| Calorie range: 350-600 kcal Grades K-5: 350-500 Grades 6-8: 400-550 Grades 9-12: 450-600 | | | Calorie ranges: 550-850 kcal Grades K-5: 550-650 Grades 6-8: 600-700 Grades 9-12: 750-850 | | |
| Saturated fat: <10 percent of total calories | | | Saturated fat: <10 percent of total calories | | |
| Sodium: Revised per 2024 rule | | | Sodium: Revised per 2024 rule | | |
| Age/Grade | Limit through 6/30/2027 | Limit by 7/1/2027 | Age/Grade | Limit through 6/30/2027 | Limit by 7/1/2027 |
| Grades K-5 | ≤ 540 mg | ≤ 485 mg | Grades K-5 | ≤ 1,110 mg | ≤ 935 mg |
| Grades 6-8 | ≤ 600 mg | ≤ 535 mg | Grades 6-8 | ≤ 1,225 mg | ≤ 1,035 mg |
| Grades 9-12 | ≤ 640 mg | ≤ 570 mg | Grades 9-12 | ≤ 1,280 mg | ≤ 1,080 mg |

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| <p>Added Sugars: <i>Effective School Year 2025-26 per 2024 rule</i></p> <p>Product-based added sugar limits</p> <ul style="list-style-type: none"> • Breakfast cereals: ≤ 6 grams of added sugars per dry oz. • Flavored milk: ≤ 10 grams of added sugars per 8 fluid oz. • Yogurt: ≤ 12 grams of added sugars per 6 oz. <p>Effective School Year 2027-28: added sugars are limited to less than 10 percent of weekly calories at breakfast</p> | <p>Added Sugars: <i>Effective School Year 2025-26 per 2024 rule</i></p> <p>Product-based added sugar limits</p> <ul style="list-style-type: none"> • Flavored milk: ≤ 10 grams of added sugars per 8 fluid oz. • Yogurt: ≤ 12 grams of added sugars per 6 oz. <p>Effective School Year 2027-28: added sugars are limited to less than 10 percent of weekly calories at lunch</p> |
| <p>Vegetables: Schools may offer any vegetables in place of fruits at breakfast (no subgroup requirements)</p> | <p>Vegetables: $\frac{3}{4}$-1 cup Dark green: $\frac{1}{2}$ cup per week Red/orange: $\frac{3}{4}$-1 $\frac{1}{4}$ cup per week Beans, lentils and peas: $\frac{1}{2}$ cup per week Starchy: $\frac{1}{2}$ cup per week Other Vegetables: $\frac{1}{2}$-$\frac{3}{4}$ cup per week Additional vegetables to reach total: 1-1 $\frac{1}{2}$ cup per week</p> |
| <p>Meats/Meat Alternates: Schools may offer meats/meat alternates, grains or a combination of both at breakfast</p> | <p>Meats/Meat Alternates: 1-2 oz eq</p> |

Competitive Foods¹⁷

Foods sold outside of the National School Lunch and Breakfast Programs

To be allowable, a competitive food item must:

- 1 Meet all of the competitive food nutrient standards; and
- 2 Be a grain product that contains 50 percent or more whole grains by weight or have whole grains as the first ingredient*; or
- 3 Have as the first ingredient* one of the non-grain main food groups: fruits, vegetables, dairy, or protein foods (meat, beans, poultry, seafood, eggs, nuts, seeds, etc.); or
- 4 Be a combination food that contains at least $\frac{1}{4}$ cup

*If water is the first ingredient, the second ingredient must be one of items 2, 3 or 4 above.

Entrée and Snack Items Sold A la Carte

Any entrée item offered as part of the lunch or breakfast program is exempt from all competitive food standards if it is sold as a competitive food on the day of service or the day after service in the lunch or breakfast program

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|------------------------|---|
| Sugar-Free Chewing Gum | Exempt from all competitive food standards |
| Grain Items | 50 percent or more whole grains by weight, or have whole grains as the first ingredient |
| Total Fats | ≤ 35 percent calories from total fat as served |
| Saturated Fats | < 10 percent calories from saturated fat as served |
| Trans Fats | Zero grams of trans fat as served (≤ 0.5 g per portion) |

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|---|---|
| Sugar | ≤ 35 percent of weight from total sugar as served Flavored milk sold as a competitive food in middle and high schools must follow product-based added sugar limit of ≤ 15 grams of added sugars per 12 fluid oz. |
| Sodium | Snack items and side dishes: ≤200 mg sodium per item as served Entrée items: ≤480 mg sodium per item as served |
| Calories | Snack items and side dishes: ≤ 200 calories per item as served Entrée items: ≤350 calories per item as served |
| Accompaniment Condiments, dressings, or dips, such as butter, cream cheese, or ketchup | Use of accompaniments is limited when competitive food is sold to students in school The accompaniment must be included in the nutrient profile as part of the food item served and meet all proposed standards |
| Caffeine | Elementary and Middle School: foods and beverages must be caffeine-free apart from trace amounts of naturally occurring caffeine substances High School: foods and beverages may contain caffeine |

Beverages

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| Plain water or plain carbonated water (no size limit) |
| Low fat milk, flavored or unflavored (grades K-5: ≤8 fl. oz.; grades 6-12: ≤12 fl. oz.) • Flavored milk: ≤ 15 grams of added sugars per 12 fluid oz. |
| Non-fat milk, flavored or unflavored, including nutritionally equivalent milk alternatives as permitted by the school meal requirements (grades K-5: ≤8 fl. oz., grades 6-12: ≤12 fl. oz.) |
| 100 percent fruit/vegetable juice or juice diluted with water (with or without carbonation), and no added sweeteners (grades K-5: ≤8 fl. oz., grades 6-12: ≤12 fl. oz.) |
| Grades 9-12 only: Other flavored and/or carbonated beverages (≤20 fl. oz.) that are labeled to contain ≤5 calories per 8 fl. oz., or ≤10 calories per 20 fl. oz. |
| Grades 9-12 only: Other flavored and/or carbonated beverages (≤12 fl. oz.) that are labeled to contain ≤40 calories per 8 fl. oz., or ≤60 calories per 12 fl. oz. |

| Are the standards aligned with the latest science?

The updated meal standards more closely align school meals with the DGA, most notably by establishing the first ever added sugar limits. However, more work must be done to continue aligning school nutrition standards with the DGA, especially towards continued sodium reduction. Additionally, school meals should incorporate more whole-grain-rich foods and added sugar limits must also be reflected in competitive food standards.

Sodium: The 2020-2025 DGA lowered the maximum amount of safe levels of sodium intake for younger school-aged children: from 2,200 mg to 1,800 mg for children aged 9-13 y and from 1,900 mg to 1,500 mg for children aged 5-8 y.¹⁸ While the current sodium reduction goals, an approximate 10 percent reduction at breakfast and 15 percent reduction at lunch (from baseline), are a step in the right direction, the final limits make it extremely difficult for students to meet DGA recommendations for sodium while consuming school meals.

Under the 2024 rule, even once the final sodium reduction limit is reached, children up to age 8 may receive **95% of their daily sodium limit from their school breakfast and lunch**. A 13-year-old may get **87% of their daily sodium limit**. High school students may meet **72% of this daily limit**.

➔ Why it matters

Nine out of ten children consume more sodium than recommended by the DGA, increasing their subsequent risk of elevated blood pressure, heart disease, and stroke.^{19,20,21,22,23} Furthermore, the prevalence of high blood pressure is increasing in U.S. children.²⁴ The good news? Prior to the 2024 update to the standards, a CS-PI-funded study found that even during the pandemic, sodium in school meals was decreasing and most school menus were compliant with prior reduction targets.²⁵

Added Sugars: The 2020-2025 DGA recommends that less than 10 percent of calories come from added sugars.²⁶ For example, in a 2,000-calorie diet, less than 200 calories should come from added sugars (about 12 teaspoons). Prior to the 2024 rule, there were no standards for added sugars in school meals. In addition to mirroring the DGA recommendation, the updated school meal nutrition standards seek to address added sugar reduction from three key sources: breakfast cereals, flavored milk, and yogurt. By contrast, competitive foods standards only address added sugars in flavored milk sold in middle and high school and for all other foods, total sugar by weight.²⁷

➔ Why it matters

Among children, intake of added sugars has been associated with increased calorie consumption, dental decay, and an increase in risk factors for cardiovascular disease.^{28,29} The Scientific Report of the 2020 Dietary Guidelines Advisory Committee explains that when added sugars comprise more than 10% of daily dietary intake, this usually indicates consumption of unhealthy sweetened foods instead of more nutritious items and/or an excess of calories.³⁰ However, evidence indicates that, independent of calories, added sugars have detrimental metabolic effects that are not due to weight gain and occur even in the absence of weight gain.³¹

Whole Grains: The DGA recommends whole grains be at least half of total grain consumption.³² The current requirement that 80 percent of grains must be whole grain-rich (containing at least 51 percent whole grains) falls short of the DGA recommendation.

➔ Why it matters

Eating more whole grains provides critical nutrients, fiber, and is associated with a lower risk of cardiovascular disease and type 2 diabetes.³³ On average, children consume too few whole grains.³⁴

Milk: The DGA recommends daily inclusion of fat-free and low-fat dairy products.³⁵ School meal standards allow for fat-free (skim) and low-fat (1%) milks to be served, which contain vitamin A, D, and calcium. Even with the current nutrition standards that limit saturated fat in school meals, most children, on average, still consume more saturated fat than is recommended, leading to elevated LDL cholesterol, a known cause of heart disease.^{36,37}

| Policy Recommendations

According to a 2023 modeling study funded by CSPI and the National Heart, Lung, and Blood Institute, strengthening school meal standards to align with the 2020-2025 DGA could improve children's diets, reduce BMI and blood pressure, and prevent thousands of adult deaths from chronic diseases, potentially saving billions in healthcare costs annually.³⁸ To actualize this, we recommend that:

Congress should:

- Protect the nutrition standards from rollback attempts, keep the standards strong by preventing harmful child nutrition policy riders, and support the USDA and schools by raising the reimbursement rate and funding robust technical assistance.
- Pass universal free school meals legislation to ensure all children can receive healthy school meals regardless of household income.

The USDA should:

- Continue to invest in and promote technical assistance for implementation of nutrition standards for schools.
- Urge the food industry to reformulate and develop innovative solutions for the K-12 market, such as through industry-school partnership grant opportunities.
- Revise the competitive foods standards to reflect the most recent DGA.

States and localities should:

- Pass policies that preserve or strengthen standards, to ensure students are able to receive healthy meals aligned with the most recent DGA regardless of federal policy.

| Standard | Current Status | Federal, State, & Local Policy Recommendations State/local law must be at least as stringent as federal law |
|--------------|--|---|
| Sodium | National School Lunch and School Breakfast Program sodium limits based on grade level in place starting July 1, 2027 | Establish new guidelines with realistic implementation timeline to ensure children can meet quantitative sodium limits within the current DGA while consuming school meals. |
| Whole Grains | 80 percent whole-grain-rich requirement | Restore 100 percent whole-grain-rich requirement. |
| Added Sugars | Product-based limits for breakfast cereals, yogurt, and flavored milk (SY 25) Weekly 10% limit for added sugars (SY 27) Flavored milk sold as a competitive food in middle and high schools must have ≤15 grams of added sugars per 12 fluid ounces. | Revise competitive foods nutrition standards to address added sugars. See specific recommendations in the CSPI Competitive Foods Report . |

Additional Resources

- [Summary of 2024 USDA school nutrition standards updates](#)
- [Comparison of 2023 USDA proposed rule and 2024 final rule](#)
- [10 Years of the Healthy, Hunger-Free Kids Act](#)
- [Model State School Foods Bill](#)
- [Tips for Reducing Added Sugar While Maintaining Great Taste](#)
- [Tips for Successfully Transitioning to Healthier Menu Options](#)
- [Tips for Serving Whole Grains That Kids Love](#)
- [Tips for Reducing Sodium Without Sacrificing Taste or Participation](#)

For more information, please contact the Center for Science in the Public Interest at policy@cspinet.org

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