

Guidance on Evaluating Recipes for Compliance with the Connecticut Nutrition Standards

Public school districts that choose the healthy food option of Healthy Food Certification (HFC) under [Section 10-215f](#) of the Connecticut General Statutes must ensure that all foods available for sale to students separately from reimbursable meals meet the [Connecticut Nutrition Standards](#) (CNS). Examples of sources that might sell foods made from scratch include the school cafeteria, bake sales, fundraisers, culinary arts programs, family and consumer sciences classes, and afterschool programs. The CNS also applies to all foods served in the Afterschool Snack Program (ASP).

This document reviews the steps for determining if foods made from scratch comply with the CNS. For information on HFC and the CNS, refer to the Connecticut State Department of Education's (CSDE) resources, [Requirements for Competitive Foods in HFC Public Schools, Summary Chart: Federal and State Requirements for Competitive Foods in HFC Public Schools](#), and [Guide to Competitive Foods in HFC Public Schools](#), and visit the CSDE's [Healthy Food Certification](#) webpage. For information on the CNS requirements, refer to the CSDE's [Summary of Connecticut Nutrition Standards](#) and visit the CSDE's [CNS](#) webpage. The CSDE's [Complying with Healthy Food Certification](#) training program provides detailed guidance on the HFC and CNS requirements.



CSDE Requires Standardized Recipes to Determine CNS Compliance

The U.S. Department of Agriculture (USDA) defines a standardized recipe as one that is tested and adapted for use by the food service operation. Standardized recipes have a specific format that produces a consistent product with consistent food quality and nutrient content each time the food is prepared. For example, standardized recipes include weight measurements (such as pounds and ounces) in addition to volume measurements (such as quarts and cups). Weight is more precise than volume; it ensures an accurate and consistent recipe yield and nutrient content each time the food is prepared. For example, measuring flour by volume can result in a different weight (and therefore different nutrient content) each time the food is prepared. However, measuring flour by weight always results in the same amount with the same nutrient content each time the food is prepared.

Since a consistent nutrient content is needed to provide an accurate nutrient analysis, the CSDE requires schools to use standardized recipes to determine CNS compliance for all foods made from scratch (refer to [“Categories of Foods Made from Scratch”](#) in this document). Guidance on how to develop standardized recipes is available in the [“Standardized Recipes”](#) section of the CSDE's [Crediting Foods in School Nutrition Programs](#) webpage.

Guidance on Evaluating Recipes for Compliance with the CNS

Districts must maintain standardized recipes on file for all competitive foods made from scratch that are sold to students on school premises. The selling entity must ensure that all staff who prepare these foods always use the appropriate standardized recipe to ensure CNS compliance.

Categories of Foods Made from Scratch

Standardized recipes are required for the two categories of foods made from scratch below.

- **Category 1 – foods prepared from ingredients using a standardized recipe:** Examples include entrees sold only a la carte (i.e., not as part of reimbursable National School Lunch Program (NSLP) and School Breakfast Program (SBP) meals) such as pizza, chef's salad, lasagna, and sandwiches; soups; cooked grains (such as rice or pasta) with added salt and fat, e.g., oil, margarine, or butter; cooked vegetables with added salt and fat; salad with dressing; fruit smoothies; and baked goods such as muffins and cookies.
- **Category 2 – foods with ingredients added after purchasing:** Examples include popping popcorn kernels in oil and adding salt; making muffins from a mix and adding butter and eggs; and adding sprinkles to commercial frozen cookie dough. **Note:** Adding ingredients to a commercial product changes its nutrition information. The selling entity must create a standardized recipe for these foods based on the specific amount of each ingredient, then conduct a nutrient analysis to determine the nutrition information per serving.



Each standardized recipe must include the specific amount of any accompaniments served with the food (refer to “[Reviewing Foods Served with Accompaniments](#)” in this document). Before selling these foods to students, the selling entity must verify that the serving (including its accompaniments) meets each nutrition standard for the applicable CNS food category.

Guidance on Evaluating Recipes for Compliance with the CNS

When Standardized Recipes Are Not Required

The CNS allows exemptions for NSLP and SBP entrees sold a la carte. Standardized recipes and nutrition information are not required for entrees sold a la carte during the same meal service on the same day that they are planned and served as part of reimbursable meals in the NSLP and SBP. These entrees are exempt from the CNS and may be sold a la carte during the meal service if they meet the following requirements: 1) same or smaller portion size as the NSLP and SBP; 2) same accompaniments; 3) trans fat standard; and 4) do not contain artificial sweeteners, nonnutritive sweeteners, sugar alcohols, or chemically altered fat substitutes.

This exemption applies only to the three categories of main dish entree items defined by the CNS (refer to the CSDE's [Summary of Connecticut Nutrition Standards](#)).

1. A combination food of meat/meat alternate and whole grain-rich (WGR) food, e.g., breakfast egg sandwich on whole-wheat English muffin, turkey wrap on whole-wheat tortilla, pizza with WGR crust, hamburger on whole-grain bun, and bean burrito with whole-corn tortilla.
2. A combination food of vegetable/fruit and meat/meat alternate, e.g., chef's salad with turkey, cheese and hard-boiled egg, fruit and cheese platter, yogurt and fruit parfait, school-made yogurt and fruit/vegetable smoothies, baked potato with chili, and chicken vegetable stir-fry.
3. A meat/meat alternate alone (e.g., sausage patty, hard-boiled egg, and grilled chicken), excluding yogurt, cheese, nuts and seeds, nut and seed butters, and meat snacks, e.g., beef jerky and meat sticks.

Any other non-entree meal components sold separately from reimbursable meals must comply with the CNS. For example, french fries and muffins that are part of reimbursable meals cannot be sold a la carte unless they meet the CNS.



Guidance on Evaluating Recipes for Compliance with the CNS

Reviewing Foods Served with Accompaniments

The CNS applies to the amount of the food as served, including any accompaniments served with the food, such as butter, cream cheese, salad dressing, and condiments. Some examples of foods with accompaniments include muffins with butter, pancakes with syrup, french fries with ketchup, salad with dressing, stir-fry chicken with duck sauce, and hamburgers with ketchup.



Adding accompaniments changes the food's nutrition information. When foods include accompaniments, the nutrition information for the food and its accompaniments must be added together to determine if the serving complies with the CNS. The serving of the food with its accompaniments must meet each nutrition standard for the applicable CNS food category. For guidance on the CNS, refer to the CSDE's [Summary of Connecticut Nutrition Standards](#).

It is important to note that many accompaniments are high in fat, sugar, and sodium, and might cause compliant foods to exceed the CNS limits. For example, serving butter with a compliant whole grain-rich corn muffin might cause the muffin to exceed the CNS limit for calories and saturated fat. An accompaniment that causes the serving to exceed the CNS limit cannot be served with the food.

Using Nutrient Analysis Software

Using a nutrient analysis software program is the simplest method to determine a standardized recipe's nutrition information per serving. To determine if the standardized recipe complies with the CNS, its nutrition information must indicate the calories, fat, saturated fat, trans fat, sodium, and total sugars per serving.



A missing nutrient value does not mean that the value is zero; it just means that the nutrient analysis software did not include that nutrient. For example, a software program might use an asterisk (*) or "NA" (not available) to indicate a nutrient value is missing, but the standardized recipe's ingredients might still contain that nutrient.

A nutrient analysis is required to determine any missing nutrient values (refer to "[Required Steps for Standardized Recipes without Nutrition Information](#)" in this document) before reviewing the recipe for CNS compliance. Standardized recipes with missing nutrient values do not indicate CNS compliance and cannot be used to make competitive foods that are sold to students.

Guidance on Evaluating Recipes for Compliance with the CNS

Required Steps for Standardized Recipes with Nutrition Information

The selling entity must follow the steps below to determine if the serving complies with the CNS.

- 1. Verify that the standardized recipe's nutrition information per serving includes all required nutrients.** The nutrition information must list values for calories, fat, saturated fat, trans fat, sodium, and total sugars. If any nutrient values are missing, this information must be determined before proceeding to step 2.
 - Use the Nutrition Facts labels for the standardized recipe's ingredients (if available) and the USDA's [FoodData Central](#) nutrient database to obtain missing nutrition information.
 - Enter the missing nutrition information for each ingredient into the CSDE's [CNS Worksheet 9: Nutrient Analysis of Recipes](#). This worksheet calculates the standardized recipe's nutrition information per serving.
 - Add the original nutrition information per serving to the missing nutrient's nutrition information per serving to get the standardized recipe's corrected nutrition information per serving.
- 2. Determine the nutrition information for any accompaniments served with the food.** The CNS applies to the amount of the food as served, including its accompaniments. The nutrition information for the food and its accompaniments must be added together to determine if the serving complies with the CNS (refer to "[Reviewing Foods Served with Accompaniments](#)" in this document).
- 3. Determine if the standardized recipe's serving complies with the CNS.** Enter the standardized recipe's nutrition information per serving (including its accompaniments) into the CNS worksheet for the applicable food category. CNS worksheets 1 and 3-8 may be used for recipes. Worksheet 2 (yogurt and pudding) is only for commercial products. For example, use:
 - CNS worksheet 1 (snacks) such as cookies, muffins, waffles, pancakes, French toast, soft pretzels, breads, and rolls;
 - CNS worksheet 3 for smoothies that contain low-fat yogurt or soy yogurt and fruits/vegetables/100 percent juice;
 - CNS worksheet 4 for fruits and vegetables prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients);
 - CNS worksheet 5 for soups;
 - CNS worksheet 6 for cooked grains prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients), such rice, pasta, and cereal grains, e.g., amaranth, barley, buckwheat, cornmeal, kasha, millet, oats, quinoa, wheat berries, and rolled wheat;

Guidance on Evaluating Recipes for Compliance with the CNS

- CNS worksheet 7 for entrees, such as breakfast sandwiches, pizza, chef's salad, yogurt and fruit parfait, and chicken vegetable stir-fry; and
- CNS worksheet 8 for non-entree combination foods, such as vegetable egg rolls.

The CNS worksheets compare the standardized recipe's nutrition information per serving with the CNS and indicate if the serving complies. These worksheets and additional guidance on evaluating foods and beverages are available in the “[How To](#)” section of the CSDE's [CNS](#) webpage.

4. Maintain each standardized recipe and its completed CNS worksheet for the annual HFC documentation (due November 30 of each year) and the CSDE's Administrative Review of the school nutrition programs. For easy access, the CSDE recommends storing this information electronically in a computer folder.



Guidance on Evaluating Recipes for Compliance with the CNS

Required Steps for Standardized Recipes without Nutrition Information

If a nutrient analysis software program is not available, the selling entity must conduct their own nutrient analysis of recipes using available Nutrition Facts labels for each ingredient and a nutrient database. The CSDE recommends using the USDA's [FoodData Central](#) database to obtain nutrition information for specific foods and ingredients. This USDA database incorporates the USDA's previous National Nutrient Database and includes five distinct types of data containing information on food and nutrient profiles.

The selling entity must follow the steps below to conduct a nutrient analysis of the standardized recipe and determine if the standardized recipe's serving complies with the CNS.

1. **Determine the standardized recipe's nutrition information.** Use Nutrition Facts labels for ingredients (if available) and the USDA's [FoodData Central](#) database to determine the amount of calories, fat, saturated fat, trans fat, sodium, and sugars for each ingredient in the recipe. Note the important considerations below for ensuring an accurate nutrient analysis.
 - **Find the specific ingredient in the database.** The accuracy of the nutrient analysis depends on selecting the database ingredient that most closely matches the standardized recipe ingredient, based on the brand, type, form, and pack of the food. Using the wrong ingredient can significantly change the standardized recipe's nutrition information and provide an inaccurate analysis. For example, the USDA's FoodData Central ([Data type: Standard Reference \(SR\) Legacy, number 168833](#)) indicates that 1 cup of packed brown sugar (220 grams) contains 836 calories and 213 grams of sugars, while 1 cup of unpacked brown sugar (145 grams) contains 551 calories and 141 grams of sugars. Make sure that the standardized recipe indicates the specific information for each ingredient, such as large or medium eggs, fresh or frozen strawberries, white or brown sugar, and canned sliced peaches in juice, water, or drained. Match this information to the database ingredient.
 - **Calculate nutrition information based on the appropriate measure for each ingredient.** If the amount from the Nutrition Facts label or the nutrient database does not match the amount used in the standardized recipe, convert the nutrition information for each ingredient based on the actual amount used. For example, if the standardized recipe uses 2 cups of whole-wheat flour but the database lists the nutrition information for 1 cup, multiply the amount of each nutrient in 1 cup of flour by 2 to determine the nutrition information for the 2 cups used in the standardized recipe. The resources below assist with calculations, such as converting fractions to decimals.
 - [Basics at a Glance Portion Control Poster](#) (Institute of Child Nutrition)
 - [Table 8: Decimal Equivalents for Fractions of a Unit](#) ("Introduction" section, USDA's *Food Buying Guide for Child Nutrition Programs*)

Guidance on Evaluating Recipes for Compliance with the CNS

- **Include any accompaniments served with the food.** The CNS applies to the amount of the food as served, including its accompaniments. The nutrition information for the food and its accompaniments must be added together to determine if the serving complies with the CNS (refer to “[Reviewing Foods Served with Accompaniments](#)” in this document). For example, if pancakes are served with syrup, the standardized recipe’s nutrition information per serving must include the combined calories, fat, saturated fat, trans fat, sodium, fiber, and sugars for the pancakes and syrup.
2. **Determine the standardized recipe’s nutrition information per serving.** Enter the nutrition information for each ingredient (including its accompaniments) and the standardized recipe’s number of servings into the CSDE’s *CNS Worksheet 9: Nutrient Analysis of Recipes*. This worksheet calculates the standardized recipe’s nutrition information per serving.
 3. **Determine if the standardized recipe’s serving complies with the CNS.** Enter the standardized recipe’s nutrition information per serving from CNS worksheet 9 into the appropriate CNS worksheet for the food category. For example, use:
 - CNS worksheet 1 (snacks) such as cookies, muffins, waffles, pancakes, French toast, soft pretzels, breads, and rolls;
 - CNS worksheet 3 for smoothies that contain low-fat yogurt or soy yogurt and fruits/vegetables/100 percent juice;
 - CNS worksheet 4 for fruits and vegetables prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients);
 - CNS worksheet 5 for soups;
 - CNS worksheet 6 for cooked grains prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients), such rice, pasta, and cereal grains, e.g., amaranth, barley, buckwheat, cornmeal, kasha, millet, oats, quinoa, wheat berries, and rolled wheat;
 - CNS worksheet 7 for entrees, such as breakfast sandwiches, pizza, chef’s salad, yogurt and fruit parfait, and chicken vegetable stir-fry; and
 - CNS worksheet 8 for non-entree combination foods, such as vegetable egg rolls.

The CNS worksheets compare the standardized recipe’s nutrition information per serving with the CNS and indicate if the serving complies. These worksheets and additional guidance on evaluating foods and beverages are available in the “[How To](#)” section of the CSDE’s [CNS](#) webpage.

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Guidance on Evaluating Recipes for Compliance with the CNS

Resources

Basics at a Glance Poster (National Food Service Management Institute):

<https://theicn.org/icn-resources-a-z/basics-at-a-glance/>

CNS Worksheet 1: Snacks (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet1_Snacks.xlsx

CNS Worksheet 10: Evaluating Recipes for Sugars (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet10_Evaluate_Recipes_Sugars.xlsx

CNS Worksheet 2: Snacks (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet2_Yogurt_Pudding.xlsx

CNS Worksheet 3: Smoothies (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet3_Smoothies.xlsx

CNS Worksheet 4: Fruits and Vegetables (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet4_Fruits_Vegetables.xlsx

CNS Worksheet 5: Soups (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet5_Soups.xlsx

CNS Worksheet 6: Cooked Grains (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet6_Cooked_Grains.xlsx

CNS Worksheet 7: Entrees (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet7_Entrees.xlsx

CNS Worksheet 8: Non-entree Combination Foods (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet8_Nonentree_Combination_Food.xlsx

CNS Worksheet 9: Nutrient Analysis of Recipes (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/CNS/CNS_worksheet9_Nutrient_Analysis_Recipes.xlsx

Complying with Healthy Food Certification Module 3: Connecticut Nutrition Standards (CSDE training program):

<https://portal.ct.gov/SDE/Nutrition/Healthy-Food-Certification/Related-Resources#ComplyingHFC>

Guidance on Evaluating Recipes for Compliance with the CNS

Complying with Healthy Food Certification Module 4: Evaluating Foods for CNS Compliance (CSDE Training Program):

<https://portal.ct.gov/SDE/Nutrition/Healthy-Food-Certification/Related-Resources#ComplyingHFC>

Connecticut Nutrition Standards (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Connecticut-Nutrition-Standards>

Evaluating Foods for CNS Compliance (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Connecticut-Nutrition-Standards/How-To>

Food Buying Guide for Child Nutrition Programs (USDA):

<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>

FoodData Central (USDA):

<https://fdc.nal.usda.gov/>

How to Evaluate Foods Made from Scratch for Compliance with the Connecticut Nutrition Standards (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/Evaluate_Scratch_Foods_CNS_Compliance.pdf

Manager's Corner: Standardized Recipes (ICN):

<https://theicn.org/resources/176/managers-corner/107624/managers-corner-standardized-recipes.pdf>

National Nutrient Database (USDA):

<https://ndb.nal.usda.gov/ndb/>

On the Road to Professional Food Preparation eLearning: Weights and Measures (ICN)

<https://theicn.docebosaaS.com/learn/course/external/view/elearning/19/weights-and-measures>

Requirements for Foods and Beverages in Culinary Programs in HFC Public Schools (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/HFC/Culinary_Programs_Requirements_HFC.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

Standardized Recipe Form for School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/accompaniments/crediting/Standardized_Recipe_Form_Schools.docx

Guidance on Evaluating Recipes for Compliance with the CNS

Standardized Recipes (CSDE's Crediting Foods in School Nutrition Programs webpage):

<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs#StandardizedRecipes>

USDA Approved Nutrient Analysis Software:

<https://www.fns.usda.gov/tn/usda-approved-nutrient-analysis-software>

USDA Recipes for Schools:

<https://theicn.org/cnrb/recipes-for-schools/>

Weights and Measures (CSDE's Crediting Foods in School Nutrition Programs webpage):

<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs#WeightsMeasures>

Guidance on Evaluating Recipes for Compliance with the CNS



For more information, visit the CSDE's [Healthy Food Certification](#) and [Connecticut Nutrition Standards](#) webpages, 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/HFC/Evaluating_Recipes_CNS_Compliance.pdf.

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