Contents for Section 6 — Dietary Specifications

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6 — Dietary Specifications

The Healthy, Hunger-Free Kids Act of 2010 (Public Law 111-296) required the USDA to update school meal nutrition standards to reflect current dietary science based on the *Dietary Guidelines for Americans*. The purpose of the USDA's nutrition standards (known as dietary specifications) is to provide nutrient-dense school meals that help combat the dual problems of childhood obesity and hunger.

The USDA's dietary specifications are based on the Dietary Reference Intakes (DRIs) and the *Dietary Guidelines for Americans*. The DRIs are a common set of reference values developed by the Institute of Medicine (IOM) that represent the most current scientific knowledge on nutrient needs of healthy populations. The *Dietary Guidelines for Americans* is a document developed by the U.S. Department of Health and Human Services and the USDA that provides science-based advice for Americans ages 2 and older to promote health and reduce risk for chronic diseases through diet and physical activity.

School meals must meet weekly dietary specifications for calories (minimum and maximum levels), saturated fats, and sodium. In addition, all food products and ingredients used to prepare school meals must contain zero grams of trans fats per serving, as indicated by the Nutrition Facts label or manufacturer's specifications.

This section contains specific strategies to help menu planners meet the calorie ranges for school meals, and limit solid fats, added sugars, and sodium. Training on the dietary specifications is available in *Module 5: Dietary Specifications* of the CSDE's training program, *What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12*.

Menu Planning

The daily and weekly servings of the food components required by the NSLP and SBP meal patterns are intended to meet the calorie and nutrient needs for each grade group. However, the types of foods selected by the menu planner affect the calorie and nutrient content of school meals. The examples below show how different food choices within the same food component vary in nutrient content.

- **Grains:** A 1-oz eq serving of 100 percent whole-grain bread provides more fiber and nutrients, and less calories and fat than a 1-ounce serving of blueberry muffin made with 50 percent whole-grain flour and 50 percent enriched flour.

- **Fruits:** A ½-cup serving of fresh fruit salad provides fiber, more nutrients, and less calories than ½ cup of 100 percent apple juice.

- **Vegetables:** A ½-cup serving of baked potato provides more fiber and nutrients, and less calories, fat, and sodium than ½ cup of oven-baked french fries.

- **MMA:** A 1-ounce serving of skinless turkey breast provides less calories, fat, and sodium than a 1-ounce serving of beef salami.

The CSDE strongly encourages SFAs to provide the healthiest choices within each food component. Menu planners must determine how foods with solid fats and added sugars affect the menu's nutrient analysis and plan menus appropriately.

All foods served as part of reimbursable meals count toward the weekly dietary specifications and are included in the CSDE's nutrient analysis of school menus when a nutrient analysis is required as part of the Administrative Review of the school nutrition programs. For more information, refer to "Nutrient Analysis" in section 2.

Resources for Dietary Specifications

The nutrition and menu planning resources below can assist SFAs with providing healthy meals that meet the dietary specifications.

- "Checking for Dietary Specifications" (in chapter 3 of USDA's *Menu Planner for School Meals*):
  https://www.fns.usda.gov/tn/menu-planner
- "Dietary Specifications for Grade Groups" (in chapter 2 of USDA's *Menu Planner for School Meals*):
  https://www.fns.usda.gov/tn/menu-planner
- Child Nutrition Sharing Site (CNSS) (ICN):
  https://theicn.org/cnss/
- Dietary Specifications (Nutrition Standards for School Meals) ("Documents/Forms" section of CSDE's Meal Patterns for Grades K-12 in School Nutrition Programs webpage):
  https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-School-Nutrition-Programs/Documents#DietarySpecifications
- Menu Planning for Child Nutrition Programs webpage):
  https://portal.ct.gov/SDE/Nutrition/Menu-Planning
- Module 5: Dietary Specifications (CSDE's training program, What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12):
  https://portal.ct.gov/SDE/Nutrition/Meal-Pattern-Training-Materials
- Recipes for Child Nutrition Programs (CSDE's Menu Planning for Child Nutrition Programs webpage):
  https://portal.ct.gov/SDE/Nutrition/Menu-Planning#Recipes
- Resources for the School Meal Patterns for Grades K-12 (CSDE):
  https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/MealPattern/Resources_School_Meal_Patterns_gradesK-12.pdf

The USDA's *Recipes for Healthy Kids Cookbook for Schools* features healthy standardized recipes that are low in saturated fats, added sugars, and sodium; and include more dark green and orange vegetables, dry beans and peas, and whole grains. The ICN's Child Nutrition Recipe Box website is a searchable collection of standardized recipes and other resources for the federal nutrition assistance programs. Additional resources are listed below.

For additional resources, refer to "Menu Planning Resources" in section 1, "Recipe Resources" in section 2, and visit the CSDE's Menu Planning for Child Nutrition Programs webpage.

Calories

The dietary specifications require age-appropriate minimum and maximum calorie levels for lunches and breakfasts offered to each grade group. School meals offered on average over the week must be within the specific calorie range for each grade group. Individual meals offered may be above or below the calorie range. The calorie ranges do not apply to meals selected by individual students. Student selections may be above or below the weekly ranges. Table 6-1 summarizes the calorie ranges for the allowable grade groups of the NSLP and SBP meal patterns.

Table 6-1. Weekly calorie ranges for grades K-12 in the NSLP and SBP

Grade group	Breakfast	Lunch
K-5	350-500	550-650
6-8	400-550	600-700
9-12	450-600	750-850
K-8 option [1]	400-500	600-650
6-12 option [1]	450-550	Not applicable [2]
K-12 option [1]	450-500	Not applicable [2]

[1] These meal pattern options are available because the calories for these grade groups overlap. They require a narrower calorie range and more restrictive sodium limit.
[2] These meal pattern options are not available for grades K-12 because the required calorie ranges for grades 6-8 and grades 9-12 do not overlap.

The CSDE's resource, *Weekly Calorie Ranges for School Meals for Grades K-12 in the NSLP and SBP*, provides a summary of these requirements.

Calorie Deviations for Developmental Issues

Schools are allowed, on a case-by-case basis, to offer age-appropriate meals to individual students in unique situations, such as older or younger students who are placed in the grade group for developmental or other exceptional reasons. An example is a 16-year-old teen with developmental issues who is placed with students in grades K-5. SFAs must seek written permission from the CSDE prior to deviating from the required meal pattern for the prevalent grade group.

Calories for Students with Special Energy Needs

The USDA designed the nutrition standards for school meals based on age-appropriate nutrition and physical activity habits of the average student. Meals for students with special energy needs (such as athletes and pregnant teens), who may require additional calories and protein, must still meet the weekly calorie limits.

Schools can provide opportunities for all students to select additional meal pattern components if meals do not exceed the weekly calorie limit. Students may obtain extra needed calories from other USDA meals, such as breakfast and ASP snacks, and can also purchase additional a la carte foods. For more information, refer to the USDA's resources, *Fact Sheet: Athletic Programs and Afterschool Meal Service* and *Fact Sheet: Calories in School Meals*.

Meeting the Weekly Calorie Ranges

The daily and weekly servings of each food component in the lunch and breakfast meal patterns are intended to meet the minimum and maximum calories for each grade group. Depending on the types and quantities of foods offered in school meals, SFAs may need to modify school menus to increase or decrease calories.

Strategies for Increasing Calories with Complex Carbohydrates

When school menus do not meet the minimum weekly calories, the menu planner must adjust the menu to increase calories to the appropriate grade-group level. Menu planners should focus on adding calories from nutrient-dense foods, following the recommendations of the *Dietary Guidelines for Americans*.

Nutrient-dense foods are naturally rich in fiber and other nutrients and contain relatively few calories. They provide a variety of health benefits, such as decreasing the risk of cardiovascular disease. Examples of nutrient-dense foods include fruits, vegetables (especially the dark green, red/orange, and legumes subgroups), whole grains, low-fat or nonfat dairy products, lean meat, skinless poultry, fish, and eggs.

When school menus need additional calories, the menu planner should increase servings of naturally nutrient-dense, fiber-rich, complex carbohydrate foods, including vegetables (especially the dark green, red/orange, and legumes subgroups), fruits, and whole grains.

To increase complex carbohydrate foods in school meals, menu planners should adjust menus to:

- include whole unprocessed or minimally processed fruits and vegetables most often;
- increase the frequency of legumes (dry beans and peas), e.g., such as kidney beans, lentils, black beans, lentils, split peas, and garbanzo beans (chickpeas);
- provide additional servings of vegetables and fruits, e.g., serving three kinds of fruits or vegetables instead of two;
- increase the serving size of vegetables and fruits, as appropriate to the grade group being served; and
- increase the frequency of whole-grains and cereals, such as whole-wheat pasta, whole-grain breads, oatmeal, bulgur, and brown rice. For information on whole grains, refer to the CSDE's resource, *Crediting Whole Grains in the NSLP and SBP*.

Strategies for Increasing Calories with Complex Carbohydrates

The guidance below assists SFAs with adjusting school menus that are below the required weekly calorie ranges by increasing nutrient-dense, fiber-rich, complex carbohydrate foods through menu planning, purchasing, meal preparation, and modifying recipes. The foods and ingredients listed below may or may not credit in school meals. For more information, refer to the USDA's *Food Buying Guide for Child Nutrition Programs* and visit the CSDE's Crediting Foods in School Nutrition Programs webpage.

Menu Planning

- Choose nutrient-dense foods that are naturally high in fiber. For more information, refer to "How to Read a Food Label" in this section.

- Plan menus to include more 100 percent whole-grain products than WGR products. For more information, refer to "Part B: WGR Criteria" in section 3.

- Add more legumes (e.g., chickpeas, lentils, and pinto beans) and whole grains (e.g., barley, bulgur, and brown rice) to menus and recipes. For example, menu planners can include more legumes in school menus by serving legume-based dishes instead of meat, poultry, or cheese dishes at least once a week; serving more legume side dishes such as three-bean salad, split pea or lentil soup, and hummus (pureed garbanzo beans); using whole or pureed beans to replace some or all of the meat in entree recipes, e.g., chili, burritos, and tacos; and adding legumes to commercial foods, e.g., adding kidney beans to commercial Minestrone soup. To increase acceptability to students, plan nutrition education activities and taste tests around the new food items. For resources on legumes, refer to "Resources for legumes" under "Meat/Meat Alternates (MMA) Component" in section 3.

- Serve fresh fruits and vegetables instead of fruit and vegetable juices. Juice is not nutritionally equivalent to whole fruits and vegetables and provides more calories.

- Serve whole or cut-up fruits and vegetables most often. Serve fresh fruits (whole or cut up) instead of canned fruits. Serve a variety of raw vegetables regularly.

Strategies for Increasing Calories with Complex Carbohydrates

- Serve whole-grain pasta-vegetable salads made with low-fat dressings.
- Serve baked potatoes instead of mashed potatoes.
- Serve more salads and offer a variety of vegetable and fruit ingredients.
- Serve 100 percent whole-grain RTE breakfast cereals and hot breakfast cereals (such as oatmeal or buckwheat) most often.
- Serve applesauce or other fruit purees (e.g., strawberries) as an alternative to maple syrup on pancakes and waffles.
- Serve dried fruit (such as raisins or dried apricots) or a trail mix containing dried fruits and whole-grain low-sugar cereals.
- Add vegetable-based soups to the menu. **Crediting note:** Only certain types of commercial vegetable soups credit in school meals. Soups made from scratch credit based on the amount of vegetables in the standardized recipe. For more information, refer to "Soups" in section 3. Review commercial soups for sodium content.

Purchasing

- Request that vendors provide nutrition information for all products. Read Nutrition Facts labels and ingredients to identify products that are naturally high in fiber. For more information, refer to "How to Read a Food Label" in this section.
- Compare brands before purchasing to determine if a comparable product is higher in fiber.
- Purchase a variety of fresh fruits and vegetables regularly.
- Purchase cruciferous vegetables frequently, such as broccoli, cauliflower, cabbage, and Brussels sprouts.
- Purchase 100 percent whole-grain foods most often. Write food specifications to include more 100 percent whole-grain foods, e.g., whole-grain bread products, oatmeal, quinoa, and brown rice. Make sure that the products received are the ones specified. For information on whole grains, refer to the CSDE's resource, *Crediting Whole Grains in the NSLP and SBP*.

Strategies for Increasing Calories with Complex Carbohydrates

- Purchase legumes (dried beans and peas) frequently. For examples of legumes, refer to the CSDE's resource, *Vegetable Subgroups in the NSLP*.

- Compare product information and purchase whole-grain breakfast cereals containing at least 2.5 grams of fiber per manufacturer's serving. At least 5 grams of fiber per serving is ideal. For more information, refer to "How to Read a Food Label" in this section.

Meal Preparation

- Add whole-grain pasta, brown rice, quinoa, and other whole grains to soups, stews, and casseroles.

- Sprinkle oat bran or wheat germ over salad, soups, breakfast cereals, and yogurt.
Crediting note: Bran and germ add calories and fiber but are not creditable grains.

- Use crushed whole-grain unsweetened RTE breakfast cereals or rolled oats as breading for baked fish and chicken.

- Serve fruits and vegetables with their skins.

Modifying Recipes

Reminder: The USDA requires that SFAs develop and follow standardized recipes for all foods prepared from scratch (refer to "Standardized Recipes" in section 2).

- Add chopped dried fruits without added sugars (e.g., apricots, raisins, dates, figs, and prunes), finely chopped nuts, oatmeal, and pureed vegetables and fruits (e.g., canned pumpkin and applesauce) to baked goods such as muffins and breads.

- Substitute whole-wheat or other whole-grain flours for enriched white flour.

- Use whole-grain products (e.g., whole-grain bread, cracker crumbs, or RTE breakfast cereals) as a topping for casseroles or breading for chicken.

- Add rolled oats to entree recipes such as meatloaf, tacos, and meat sauce.

Strategies for Increasing Calories with Complex Carbohydrates

- Add lentils or bulgur to hamburger dishes. **Crediting note:** Lentils credit as either the vegetables or MMA component but cannot credit as both in the same meal. For more information, refer to "Crediting Legumes as Vegetables" and "Crediting Legumes as MMA" in section 3. Bulgur is a whole grain and credits as the grains component.

- Add legumes (whole, mashed, or pureed) such as kidney beans, lentils, black beans, and garbanzo beans (chickpeas) to entrees, stews, side dishes, and salads. For example, black beans added to burritos and lentils added to brown rice pilaf. **Crediting note:** Lentils credit as either the vegetables or MMA component but cannot credit as both in the same meal. For more information, refer to "Crediting Legumes as Vegetables" and "Crediting Legumes as MMA" in section 3.

- Add legumes such as kidney beans and black beans to commercial soups, e.g., kidney beans added to canned minestrone soup. **Crediting note:** Only certain types of commercial vegetable soups credit in school meals. For more information, refer to "Crediting Soups" in section 3.

- Add pureed beans to taco mix, meat sauce, and similar entrees. They will thicken the mixture and take on the flavor of the dish. **Crediting note:** Pureed beans credit as the MMA component but not the vegetables component unless the food also contains an adequate amount of recognizable creditable vegetables. For more information, refer to "Crediting Pureed Vegetables" in section 3.

- Make bread items such as French toast and garlic bread from 100 percent whole-grain bread.

- Increase the amount of whole grains (e.g., brown rice, quinoa, and whole-grain pasta) and vegetables in stews, soups, casseroles, and similar entrees.

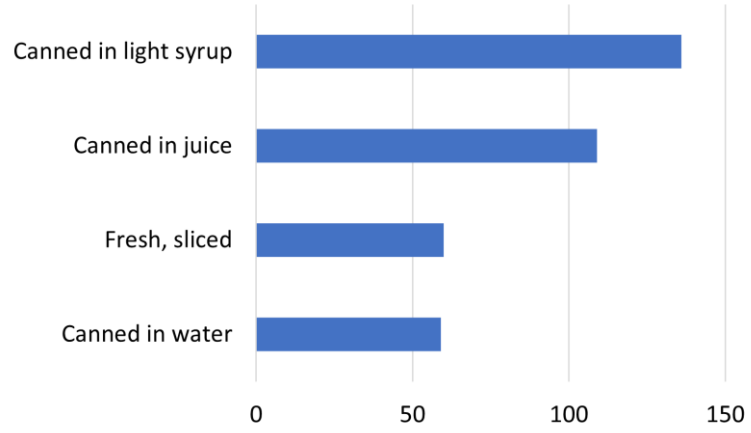
Strategies for Decreasing Calories

When school menus exceed the weekly calorie limit, the menu planner must adjust the menu to decrease calories to the appropriate grade-group level. Focus on replacing foods that are higher in saturated fats and added sugars with lower calorie, nutrient-dense foods; reducing the amount of noncreditable foods; and limiting additional portions. The recommendations below help decrease calories in school meals. The strategies for reducing fats also help to reduce calories. For detailed guidance, refer to "Strategies for Limiting Saturated and Trans Fats" in this section.

- **Serve less juice.** Juice is more calorie dense than whole fruits and vegetables. For example, ½ cup of grape juice contains about 80 calories while ½ cup of fresh grapes contains about 52 calories. In addition, juice does not provide the same nutritional benefits as whole fruits. For more information, refer to "Fruits Component" in section 3 and "Weekly Juice Limits at Lunch" and "Weekly Juice Limits at Breakfast" in section 4.

- **Serve less canned fruit.** Canned fruits in juice and light syrup contain more calories than whole fruits and canned fruits in water. Substituting whole fruits for canned fruits decreases calories and provides more nutrients. For example, peaches in juice and light syrup contain about twice the amount of calories as fresh peaches and canned peaches in water (refer to table 6-1).

Table 6-2. Calorie per cup of fresh and canned peaches



Source: USDA Food Data Central, https://fdc.nal.usda.gov/

- **Serve dried and frozen fruit without added sugar.** Read Nutrition Facts labels and ingredients to identify products that contain added sugars. For more information, refer to "How to Read a Food Label" in this section.

- **Use low-fat dairy products in school recipes.** Menu planners can decrease calories and saturated fats in school recipes by substituting low-fat or fat-free milk for whole or reduced-fat (2%) milk, and substituting low-fat dairy products (e.g., low-fat cheese and low-fat or fat-free yogurt) for full-fat dairy products.

- **Serve whole or cut-up fruits and vegetables most often.** Whole fruits and vegetables are low in calories and high in nutrients. For more information, refer to "Fruits Component" and "Vegetables Component" in section 3.

- **Limit additional MMA.** Serve only enough of the MMA component to meet the minimum daily and weekly requirement for each grade group. Additional amounts of MMA provide more calories and may provide more saturated fats and sodium. Other strategies to reduce calories from MMA include limiting or eliminating processed meats, such as luncheon meats, hot dogs, and sausage; using reduced-fat or low-fat cheese in recipes and purchasing commercial products made with reduced-fat or low-fat cheese; and writing purchasing specifications to limit the fat content of commercial meat/meat alternate products such as pizza, chicken nuggets, and hot dogs.

- **Limit additional grains.** Serve only enough of the grains component to meet the minimum daily and weekly requirement for each grade group. Additional servings of grains provide more calories.

- **Eliminate grain-based desserts.** Grain-based desserts often contain more calories, solid fats, and added sugars. Examples include brownies, cookies, cakes, cupcakes, coffee cakes, pies, cinnamon rolls, doughnuts, cereal bars, granola bars, breakfast bars, sweet rolls, pastries, and toaster pastries. **Crediting note:** Lunch menus must limit grain-based desserts to no more than 2 oz eq per week. For more information, refer to "Limit for Grain-based Desserts" in section 3.

- **Limit the frequency and amount of noncreditable foods.** Noncreditable foods typically contain few nutrients and are higher in added sugars, saturated fats, and sodium. Examples include bacon, potato chips, pudding, gelatin, ice cream, jam, maple syrup, butter, cream cheese, salad dressing, ketchup, mayonnaise, and mustard. For more information, refer to "Noncreditable Foods" in section 3.

For more information on the calorie maximums and tips to improve acceptance of school meals, refer to the USDA's resource, *Fact Sheet: Calories in School Meals.*

Limiting Added Sugars

The *Dietary Guidelines for Americans* recommends limiting added sugars to less than 10 percent of daily calories. This recommendation is intended to help people achieve a healthy eating pattern by meeting nutrient and food group needs through nutrient-dense food and beverage choices, and staying within calorie limits. Eating patterns that include lower intake of added sugars are associated with reduced risk of cardiovascular disease, obesity, type 2 diabetes, and some types of cancer.

Added sugars provide calories without any nutrients. The *Dietary Guidelines for Americans* indicates that Americans consume an average of almost 270 calories per day (more than 13 percent of daily calories) from added sugars. Intakes of added sugars as a percent of calories are particularly high among children, adolescents, and young adults. Limiting foods with added sugars helps school menus stay under the required weekly calorie limit for each grade group.

Sources of Added Sugars

Manufacturers often add sugars to foods in processing or preparation, most commonly as white table sugar (sucrose) and corn sweeteners. Sweetened beverages (such as soft drinks, fruit drinks, and flavored waters) account for almost half of all added sugars in the United States. The other major source is snacks and sweets, including:

- grain-based desserts such as cakes, pies, cookies, brownies, doughnuts, sweet rolls, and pastries;
- dairy desserts such as ice cream, other frozen desserts, and puddings;
- candies;
- sugars;
- jams; syrups; and
- sweet toppings.

Research shows that it is difficult for people to meet their nutrient needs while staying within calorie limits if they consume more than 10 percent of their total daily calories from added sugars. School meals should consist of foods that are naturally nutrient rich and low in added sugars.

Strategies for Decreasing Calories by Limiting Added Sugars

The table below lists common sugars and sweeteners.

Table 6-3. Common sugars and sweeteners

Added sugars

Brown rice syrup
Brown sugar
Corn sweetener
Corn syrup
Corn syrup solids
Dextrin
Dextrose
Fructose
Fruit juice concentrate
Glucose
High-fructose corn syrup
Honey
Invert sugar
Lactose
Malt syrup
Maltose
Molasses
Maple syrup
Nectars, e.g., peach nectar, pear nectar
Raw sugar
Sorghum syrup
Sucrose
Syrup

Nonnutritive sweeteners [1]

Artificial

Acesulfame potassium (Ace-K): Sweet One®, Sunett ®, Sweet & Safe®
Advantame
Aspartame: Nutrasweet, Equal®, Sugar Twin®
Neotame: Newtame®
Saccharin: Sweet and Low®, Sweet Twin®, Sweet 'N Low Brown®, Necta Sweet®
Sucralose: Splenda®

Plant-based [2]

Stevia rebaudiana: Truvia® PureVia®, Enliten®, Sweetleaf®
Luo han guo (monk fruit): Nectresse®, Monk Fruit in the Raw®, PureLo®
Thaumatin

Sugar alcohols

Erythritol
Isomalt
Lactitol
Maltitol
Mannitol
Sorbitol
Xylitol
Hydrogenated starch hydrolysates, e.g., hydrogenated glucose syrups, maltitol syrups, and sorbitol syrups

[1] Unless medically necessary, the CSDE does not recommend using foods that contain nonnutritive sweeteners (artificial or plant-based) or sugar alcohols. Choose nutrient-dense foods that are naturally low in sugars. For information on the currently approved nonnutritive sweeteners, refer to "Additional Information about High-Intensity Sweeteners Permitted for Use in Food in the United States" on the FDA's webpage.

[2] These sweeteners are often called "natural," but this term has not been defined by the FDA and does not have any consistent meaning when used to describe foods or beverages.

Strategies for Decreasing Calories by Limiting Added Sugars

The following guidance assists SFAs with meeting the weekly calorie ranges by reducing added sugars through menu planning, purchasing, meal preparation, and modifying recipes. These strategies will help menu planners reduce calories in school meals. The foods and ingredients listed below may or may not credit in school meals. For more information, refer to the USDA's *Food Buying Guide for Child Nutrition Programs* and visit the CSDE's Crediting Foods in School Nutrition Programs webpage.

Menu Planning

- Review commercial products and standardized recipes to determine the amount of added sugars. Choose foods that are lowest in added sugars. Replace foods containing high levels of sugars with those containing moderate levels of sugars. For more information, refer to "How to Read a Food Label" in this section.

- Increase the frequency of 100 percent whole-grain foods and fresh vegetables and fruits, instead of processed high-sugar foods.

- Serve whole fruits or unsweetened cooked fruit (such as baked apples with raisins) instead of desserts. Add spices like cinnamon, nutmeg, cloves, and allspice to enhance the flavor of cooked fruit.

- Eliminate or limit grain-based desserts such as cakes, cobblers, cookies, doughnuts, sweet rolls, toaster pastries, and coffee cake. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.

- Eliminate or limit highly sweetened breakfast cereals. Replace with low-sugar whole-grain cereals.

- If serving baked goods, choose foods made with less sugar and more nutritious ingredients like whole-wheat flour, oatmeal, chopped nuts, peanut butter, and fruits and vegetables, e.g., pumpkin, zucchini, cranberries, raisins, and carrots. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.

- Eliminate or limit servings of high-sugar noncreditable foods such as gelatin, jams, jellies, syrups, and sweet toppings.

Strategies for Decreasing Calories by Limiting Added Sugars

Purchasing

- Purchase foods that are low in added sugars. Request that vendors provide nutrition information for all products. Refer to the Nutrition Facts label to determine the amount of added sugars in commercial products. Compare brands before purchasing to determine if a comparable product is lower in added sugars. For more information, refer to "How to Read a Food Label" in this section.

- Write food specifications to include food items without added sugars. Examples include canned fruit packed in natural juices or water instead of syrup, frozen fruit without added sugar, dried fruit without added sugar, and whole-grain breakfast cereals that are unsweetened or low in added sugars. Make sure the products received are the ones specified.

- Compare nutrition information for condiments such as salad dressings and barbecue sauce. Some condiments are high in added sugars.

- Purchase vanilla or lemon yogurt as an alternative to higher-sugar fruit flavors, or mix half plain yogurt and half fruited yogurt.

- Eliminate or limit purchases of foods that are high in added sugars, such as certain snack foods and commercial convenience foods.

Meal Preparation

- Do not add additional sugars or sweeteners to standardized recipes.

- Compare standardized recipes and use those that are lowest in sugars and sweeteners.

Strategies for Decreasing Calories by Limiting Added Sugars

Modifying Recipes

Reminder: The USDA requires that SFAs develop and follow standardized recipes for all foods prepared from scratch (refer to "Standardized Recipes" in section 2).

- Use cinnamon and vanilla to increase the sweet flavor of a food, while reducing the sugar content.

- If serving cake, sprinkle with powdered sugar or top with fruit instead of frosting or icing. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.

- Replace canned pie fillings with unsweetened, spiced cooked fruit when making cobblers or pies. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.

- Reduce sugar in baked goods. Usually the amount of sugar can be reduced by one-third to one-half without altering the flavor. Adding spices, dried fruits, vanilla, lemon zest, and other similar ingredients can make up for missing sugar. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.

Strategies for Decreasing Calories by Limiting Added Sugars

Saturated Fats

The *Dietary Guidelines for Americans* recommends limiting saturated fats to less than 10 percent of daily calories. Replacing saturated fats with unsaturated fats, especially polyunsaturated fats, is associated with reduced total cholesterol and low-density lipoprotein (LDL) cholesterol, and a reduced risk of cardiovascular events (heart attacks) and related deaths.

Saturated Fats

The USDA's dietary specifications require that school meals contain less than 10 percent of calories from saturated fats, based on the weekly average of the lunch or breakfast menu. All dietary fats contain a mix of saturated and unsaturated fats. Most animal foods are high in saturated fats, except for fish. Most plant foods are high in unsaturated fats, except for coconut oil, palm oil, and palm kernel oil.

- **Solid fats:** Fats with a higher amount of saturated fats are usually solid at room temperature and are referred to as "solid fats." Fats that contain trans fats are also classified as solid fats, although they may or may not be solid at room temperature.

- **Oils:** Fats with a higher amount of polyunsaturated and monounsaturated fats are usually liquid at room temperature and are referred to as "oils."

Table 6-4 shows examples of types of fats.

Menu planners can help school meals comply with the dietary specifications by switching from saturated fats (e.g., butter, stick margarine, and shortening) to healthier monounsaturated or polyunsaturated oils (e.g., canola, corn, olive, safflower, sesame, soybean, and sunflower).

Sources of saturated fats

The major source of saturated fats in the United States include mixed dishes, especially those dishes containing cheese, meat, or both (including burgers, sandwiches, and tacos; rice, pasta, and grain dishes); pizza; meat, poultry, and seafood dishes; and soups). Other food categories that provide saturated fats are snacks and sweets, protein foods, and dairy products.

Table 6-4. Types of fats

Saturated (solid) fats		Unsaturated fats	
Beef fat (tallow, suet)	Partially hydrogenated oils (contain trans fats) [1]	**Monounsaturated**	**Polyunsaturated**
Butter	Pork fat (lard)	Canola	Soybean
Chicken fat	Shortening	Olive	Corn
Coconut oil	Stick margarine	Safflower	Cottonseed
Cream			Sunflower
Hydrogenated oils			
Milk fat			
Palm oil			
Palm kernel oil			

[1] FDA regulations eliminated artificial trans fats from the U.S. food supply, with final compliance required by January 1, 2021. For more information, refer to "FDA's final rule to remove trans fats from foods" in this section.

Menu planners can have the greatest impact on reducing saturated fats in school meals through careful purchasing. This includes comparing product nutrition labels and writing specifications for foods that are lower in saturated fats and do not contain partially hydrogenated oils.

Trans Fat Requirement for School Meals

The USDA's dietary specifications require that Nutrition Facts labels and manufacturer specifications indicate zero grams of trans fats per serving for all food products and ingredients used to prepare school meals. In January 2020, the USDA issued a proposed rule to remove trans fats as a dietary specification due to the FDA's regulations that eliminated partially hydrogenated oils from the food supply. However, until a final rule is approved, the dietary specifications for school meals still include trans fats. For more information, refer to "USDA's proposed rule to remove trans fats from the dietary specifications" and "FDA's final rule to remove trans fats from foods" below.

USDA's proposed rule to remove trans fats from the dietary specifications

On January 23, 2020, the USDA issued the proposed rule, *Simplifying Meal Service and Monitoring Requirements in the National School Lunch and School Breakfast Programs* (85 FR 4094). Among other changes, this rule proposed to remove trans fats as a dietary specification, effective July 1, 2021. The USDA indicates that the trans fat dietary specification is no longer needed because the FDA enacted regulations to eliminate partially hydrogenated oils from the food supply.

As of the date of this publication, the USDA has not finalized the proposed rule to remove the trans fat dietary specification. Until a final rule is approved, the dietary specifications for school meals still include trans fats.

FDA's final rule to remove trans fats from foods

In June 2015, the FDA issued the *Final Determination Regarding Partially Hydrogenated Oils* (80 FR 34650), indicating that partially hydrogenated oils are not "generally recognized as safe" (GRAS) for any use in human food. This final rule required manufacturers to remove artificial trans fats from all products by June 18, 2018. Prior to the change in the FDA's regulations for trans fats, foods that contained less than 0.5 gram of artificial trans fats could state "0 grams" on the Nutrition Facts label.

The FDA allowed until January 1, 2020, for certain products produced prior to this time to work their way through distribution. In addition, manufacturers with less than $10 million in annual food sales had until January 1, 2021, to comply. For more information, visit the FDA's webpage, Final Determination Regarding Partially Hydrogenated Oils (Removing Trans Fat).

Prior to the FDA's final rule, most trans fats in the food supply were artificially made as the result of "hydrogenation," a manufacturing process where liquid vegetable oils are made into a solid (saturated) fat to increase shelf life. The biggest source of trans fats was partially hydrogenated vegetable oils used in processed foods such as desserts, microwave popcorn, frozen pizza, and some margarines.

Strategies for Limiting Saturated Fats

The guidance below provides strategies to assist SFAs with reducing saturated fats through menu planning, purchasing, meal preparation, and modifying recipes. The foods and ingredients listed below may or may not credit in school meals. For more information, refer to the USDA's *Food Buying Guide for Child Nutrition Programs* and visit the CSDE's Crediting Foods in School Nutrition Programs webpage.

Menu Planning

- Determine the amount of saturated fats in commercial menu items and school recipes. Refer to the Nutrition Facts label for commercial products. For more information, refer to "How to Read a Food Label" in this section. Choose foods lowest in saturated fats.

- Increase servings of legumes, fruits, vegetables, and whole grains. Crediting note: Legumes credit as credit as either the vegetables or MMA component but cannot credit as both in the same meal. For more information, refer to "Crediting Legumes as Vegetables" and "Crediting Legumes as MMA" in section 3. For information on determining if a product is whole grain, refer to the CSDE's resource, *Crediting Whole Grains in the NSLP and SBP*.

- Plan only enough of the MMA component to meet the minimum daily and weekly requirement for each grade group. Additional servings of MMA provide more saturated fat.

- Limit use of foods that are higher in saturated fats.

- Limit frequency of processed meats such as luncheon meats, hot dogs, and sausage. **Crediting note:** Meat products with binders and extenders credit based on the percentage of meat in the product formula, without the weight of the binders and extenders. For more information, refer to "Liquids, binders, and extenders" in section 3.

- Eliminate or limit the amount of full-fat cheese served. Replace with low-fat or reduced-fat 100 percent natural cheese.

- Limit servings of battered or breaded foods that are fried in fat during processing. This includes foods that are "set in breading," i.e., deep fried just long enough to set the breading.

Strategies for Limiting Saturated Fats

- Use broth-based soups instead of cream-based soups or prepared bases. **Crediting note:** Only certain types of commercial vegetable soups credit in school meals. For more information, refer to "Soups" in section 3.

- Eliminate or limit high-fat foods such as cookies, cake, doughnuts, and brownies. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts in section 3.

- Offer mustard, ketchup, and low-fat mayonnaise as alternatives to high-fat spreads such as regular mayonnaise. Read Nutrition Facts labels for sodium content. For more information, refer to "How to Read a Food Label" and "Limiting Sodium" in this section.

- Offer low-fat or fat-free salad dressings instead of regular full-fat varieties. Read Nutrition Facts labels for sodium content. For more information, refer to "How to Read a Food Label" and "Limiting Sodium" in this section.

Strategies for Limiting Saturated Fats

Purchasing

- Request that vendors provide nutrition information for all products. Read Nutrition Facts labels to determine the amount of saturated fats per serving. Compare brands before purchasing to determine if a comparable product is lower in saturated fats. For more information, refer to "How to Read a Food Label" in this section.

- Write food specifications to limit the amount of saturated fats per serving. For example, specify the percentage of saturated fats for entree items, side dishes, and snack foods. Make sure that the products received are the ones specified.

- Purchase ground chicken or turkey (without skin) to mix with or substitute for lean ground beef.

- Limit purchases of processed meats, e.g., hotdogs and deli meats. If purchased, specify reduced-fat products. **Crediting note:** Meat products with binders and extenders credit based on the percentage of meat in the product formula, without the weight of the binders and extenders. For more information, refer to "Liquids, binders, and extenders" in section 3.

- Purchase leaner meats, e.g., ground beef with no more than 15 percent fat.

- Purchase tuna packed in water instead of oil.

- Avoid products with animal fat (lard), saturated vegetable oils (coconut oil, palm oil, and palm kernel oil), hydrogenated shortening, and stick-type margarine.

- Purchase lean ham as a substitute for bacon or sausage. **Crediting note:** Bacon is high in fat and low in protein and does not contribute to the MMA component. If used as an ingredient in a menu item, the SFA must evaluate the recipe for compliance with the meal pattern requirements. Some types of bacon such as turkey bacon might credit, based on the product's CN label or PFS. For more information, refer to "Noncreditable MMA," "Crediting Deli Meats, Hot Dogs, and Sausage" and "Crediting MMA in Commercial Products" in section 3.

- Purchase low-fat mayonnaise and salad dressings. Avoid commercial barbecue sauces and canned sauces. Read Nutrition Facts labels for saturated fat content. For more information, refer to "How to Read a Food Label" in this section.

Strategies for Limiting Saturated Fats

- Purchase lower fat 100 percent whole-grain breads (e.g., bagels, pita bread, corn tortillas, and English muffins) most often, instead of higher fat grain products such as muffins, croissants, doughnuts, Danish pastries, and sweet rolls. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.

- Instead of full-fat cheese, purchase low-fat or reduced-fat natural cheese and products made with these cheeses, e.g., pizza with part-skim mozzarella cheese instead of regular mozzarella.

- Limit use of convenience and prepared food items that are higher in saturated fats. Compare nutrition information for processed foods such as pizza and hot dogs. A different brand of the product may contain less saturated fat. For more information, refer to "How to Read a Food Label" in this section.

- Purchase soft margarine, which is lower in saturated fats than stick margarine and butter. Compare brands and choose margarine that is highly polyunsaturated and does not contain any partially hydrogenated oils.

- If using commercial baking mixes such as muffins and pancakes, purchase products to which fat must be added so the food service operation can control the type and amount of fat added during preparation.

Meal Preparation

- Prepare items from scratch to control the type and amount of fat.

- Avoid frying foods. Bake, broil, steam, poach, braise, or stir-fry instead.

- Brown meats by broiling or cooking in nonstick pans with little or no oil.

- Instead of fat, baste or coat foods with herbs, seasonings, broth, fruit juices, or an oil-based marinade made from an oil low in saturated fats, e.g., canola, corn, olive, safflower, sesame, soybean, and sunflower.

- Use nonstick cooking spray instead of oil or shortening for braising and sautéing.

Strategies for Limiting Saturated Fats

- Roast meat, poultry, and fish on a rack so fat will drain off. Completely drain fat from precooked ground meats. Drain in a colander or use a meat baster to remove fat that has cooked out of product.

- To thicken gravies and sauces without adding fat, mix cornstarch with a small amount of cold water to make a slurry. Slowly stir this mixture into the liquid to be thickened and bring back to a boil. Cornstarch can also be used to replace a roux (a butter-flour mixture used for thickening). Use an amount of cornstarch equal to half the amount of flour indicated.

- Reduce ground beef in chili and similar entrees by half and add more beans. **Crediting note:** Legumes credit as credit as either the vegetables or MMA component but not both components in the same meal. For more information, refer to "Crediting Legumes as Vegetables" and "Crediting Legumes as MMA" in section 3.

- Cook soups, stews, sauces, broths, and boiled meat ahead of time. Refrigerate and remove congealed fat. Make gravies after fat has hardened and is removed from liquid.

- Replace shortening and butter in recipes with vegetable oil or soft margarine (liquid oil should be the first ingredient and trans fats must be zero). Choose oils low in saturated fats such as canola, corn, olive, safflower, sesame, soybean, and sunflower.

- Reduce the amount of cheese in entree items. For example, use ¼ ounce of cheese instead of ½ ounce of cheese. Increase the amount of lean meat or meat alternates, if needed, to provide the required oz eq of the MMA component for each grade group.

- Make casserole toppings by reducing the amount of cheese and combining with dry whole-grain bread crumbs and herbs. Boost cheese flavor with enhancers such as dry mustard and lemon juice.

- Use low-fat (1%) or fat-free milk in recipes instead of reduced-fat (2%) or whole milk.

- For sauces and dressings, use low-calorie bases such as vinegar, mustard, tomato juice, and fat-free sodium-free bouillon instead of high-calorie bases such as creams, fats, oils, and mayonnaise.

Strategies for Limiting Saturated Fats

- Cut mayonnaise in recipes with low-fat yogurt (up to half).
- Use only enough low-fat salad dressing to lightly coat salad.
- Use the leanest cuts of meat and trim away all fat. Remove all fat and skin from poultry.
- Prepare cooked vegetables without added fat, e.g., butter, margarine, or oil. Use herbs and spices to boost flavor.
- When sautéing or stir-frying, use only a small amount of vegetable oil. Choose oils that are low in saturated fats, e.g., canola, corn, olive, safflower, sesame, soybean, and sunflower.
- Use nonstick skillets and baking pans when possible.
- For baked goods or other foods, use pan liners and nonstick cooking spray instead of greasing sheet pans.
- Use nonstick cooking spray instead of oil when pan-frying or sautéing foods.
- Brush breads and rolls with egg white or fat-free or low-fat milk instead of butter, before baking to improve browning.

Modifying Recipes

Reminder: The USDA requires that SFAs develop and follow standardized recipes for all foods prepared from scratch (refer to "Standardized Recipes" in section 2).

- Substitute ground turkey or chicken (without skin) for half of the ground beef in recipes such as chili, spaghetti, lasagna, and meat loaf.
- Reduce fat in recipes by as much as half, starting with one-quarter less fat and testing the recipe.
- Substitute vegetable oil or margarine for butter. Choose margarine brands that are lowest in saturated fats and contain zero grams of trans fats per serving.
- Replace one-quarter of the ground meat in a recipe with mashed beans. For example, use Great Northern beans in tacos. **Crediting note:** Legumes credit as credit as either the

Strategies for Limiting Saturated Fats

vegetables or MMA component but cannot credit as both in the same meal. For more information, refer to "Crediting Legumes as Vegetables" and "Crediting Legumes as MMA" in section 3.

- Substitute low-fat yogurt, applesauce, or fruit puree (e.g., applesauce, plum puree, or prune puree) for oil, shortening, margarine, or butter in recipes for baked goods. Generally, the amount of fat can be reduced by half and fruit products can be substituted for an equal amount of fat in muffin or quick bread recipes. **Crediting note:** Pureed fruit cannot credit as the fruits component when used to improve the nutrient profile of a food, e.g., using applesauce to replace the oil in brownies or pureed prunes to replace the butter in spice cake. Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Crediting Pureed Fruit" and "Limit for Grain-based Desserts" in section 3.

- Substitute low-fat cheese such as ricotta, farmer, cottage, or mozzarella for regular cheese in recipes.

- Eliminate fat from recipes when possible. For example, instead of sautéing onions in oil for spaghetti sauce, cook the onions in the sauce.

- Substitute two egg whites for one whole egg in recipes or use an egg substitute product. **Crediting note:** Egg whites and egg substitutes do not credit in the school meal patterns. Recipes that contain egg whites and egg substitutes must be evaluated for meal pattern compliance.

- Make pizza with lean ham or Canadian bacon instead of sausage or pepperoni.

- Make low-fat recipe substitutions. For example, substitute low-fat or fat-free yogurt or low-fat or fat-free sour cream for sour cream; cocoa powder for chocolate; nonfat milk or nonfat dry milk for whole and reduced-fat milk; and part-skim mozzarella cheese for regular mozzarella.

For additional resources on limiting saturated fats in school meals, refer to "Saturated Fat and Trans Fat" in the "Dietary Specifications (Nutrition Standards for School Meals)" section of the CSDE's Meal Patterns for Grades K-12 in School Nutrition Programs webpage

Sodium

The *Dietary Guidelines for Americans* recommends limiting daily sodium intake to 2,300 milligrams for children ages 14 and older, and adults. The sodium limits for younger children are 1,500 milligrams for ages 1-3, 1,900 milligrams for ages 4-8, and 2,200 milligrams for ages 9-13.

On average, Americans ages 1 year and older consume 3,440 milligrams of sodium per day. A high-sodium diet increases the risk of high blood pressure in individuals who are sodium sensitive. Keeping blood pressure in the normal range reduces the risk of heart disease, congestive heart failure, and kidney disease.

Sodium Requirement

The U.S. Department of Agriculture's (USDA) final rule, *Transitional Standards for Milk, Whole Grains and Sodium* (87 FR 6984) establishes transitional standards for school meals effective July 1, 2022. The transitional sodium standards are intended to encourage the reintroduction of lower sodium foods and meals to students and provide the food industry additional time to develop and test lower sodium products that are palatable to students. The NSLP and SBP have different transitional sodium standards.

- **NSLP:** For school year 2022-23 (effective July 1, 2022), school lunches must meet the weekly sodium limit for Target 1. For school year 2023-24 (effective July 1, 2023), school lunches must meet Target 1A. This limit decreases by 10 percent for achievable long-term sodium reduction, which the USDA will address in future rulemaking.

- **SBP:** Effective July 1, 2022, school breakfasts must meet one sodium target for school years 2022-23 and 2023-24. Breakfast has only one target because there is a greater need for sodium reduction at lunch.

Table 6-5 summarizes the transitional sodium limits for school meals through school year 2023-24. Sodium levels are listed in milligrams (mg).

Table 6-5. Transitional sodium limits for school meals			
Grade Group	NSLP		SBP
	Target 1: School Year 2022-23 Effective July 1, 2022	**Target 1A: School Year 2023-24** Effective July 1, 2023	**School Years 2022-23 and 2023-24** Effective July 1, 2022
K-5	≤ 1,230 mg	≤ 1,110 mg	≤ 540 mg
6-8	≤ 1,360 mg	≤ 1,225 mg	≤ 600 mg
9-12	≤ 1,420 mg	≤ 1280 mg	≤ 640 mg

Meals offered on average over the week must meet the sodium target for each grade group. These sodium limits do not apply per day, per meal, or per menu item. This allows menu planners to occasionally offer higher sodium meals or menu items if they are balanced with lower sodium meals and menu items throughout the week.

Sources of Sodium

Sodium is found in almost all food categories. Food manufacturers use sodium extensively in processed foods as a flavor and color enhancer, binder, preservative, and stabilizer. Sodium content varies even among very similar products, due to the way foods are processed and prepared.

Mixed dishes account for almost half of the sodium consumed in the United States, including:

- burgers, sandwiches, and tacos;
- rice, pasta, and grain dishes;
- pizza;
- meat, poultry, and seafood dishes; and
- soups.

The foods in many of these categories are often commercially processed or prepared. Other high-sodium food categories include protein foods, dairy, sweets and snacks, vegetables, and accompaniments such as condiments, gravies, spreads, and salad dressings.

Menu planners can have the greatest impact on reducing sodium in school meals through careful purchasing. This includes comparing product nutrition labels and specifying foods that are lower in sodium. Foods containing 20 percent or more of the Daily Value for sodium are high in sodium and should be limited in school menus. For more information, refer to "How to Read a Food Label" in this section.

Strategies for Limiting Sodium

The guidance below provides strategies to assist SFAs with reducing sodium through menu planning, purchasing, meal preparation, and modifying recipes. The foods and ingredients listed below may or may not credit in school meals. For more information, refer to the USDA's *Food Buying Guide for Child Nutrition Programs* and visit the CSDE's Crediting Foods in School Nutrition Programs webpage. For additional guidance on reducing sodium, visit the ICN's website, Sodium Resources for School Nutrition Professionals.

Menu Planning

- Review commercial products and standardized recipes to determine the amount of sodium in menu items. Choose recipes and foods lowest in sodium. For more information, refer to "How to Read a Food Label" in this section.

- When the menu includes entrees that are higher in sodium, plan low-sodium foods to accompany them. For example, serve fresh fruits and vegetables with a breaded chicken patty.

- Serve smaller portions of high-sodium foods.

- Eliminate or limit high-sodium foods such as bacon, pickles, olives, and sauerkraut. **Crediting note:** Bacon is high in fat and low in protein and does not credit as the MMA component. Menu items that contain bacon as an ingredient in a must be evaluated for compliance with the meal pattern requirements. Some types of bacon such as turkey bacon might credit, based on the product's CN label or PFS. For more information, refer to "Noncreditable MMA," "Crediting Deli Meats, Hot Dogs, and Sausage" and "Crediting MMA in Commercial Products" in section 3.

- Eliminate processed meats such as luncheon meats, hot dogs, and sausage, or limit to no more than one serving per week. **Crediting note:** Meat products with binders and extenders credit based on the percentage of meat in the product formula, without the weight of the binders and extenders. For more information, refer to "Liquids, binders, and extenders" in section 3.

Strategies for Limiting Sodium

- Use low-fat or reduced-fat low-sodium natural cheeses (e.g., brick, cheddar, Colby, Monterey Jack, mozzarella, Muenster, provolone, and Swiss) instead of processed cheeses (e.g., pasteurized process cheese food, pasteurized process cheese spread, and pasteurized process cheese product).

- Plan more menu items that are made from scratch to control the amount of added salt.

- Plan unprocessed whole foods more frequently, e.g., vegetables (especially dark green and orange vegetables and legumes), fruits, grains, low-fat dairy, and lean meats.

- Keep table salt and high-sodium condiments away from the serving and dining areas.

- Limit ingredients that contain sodium, e.g., baking powder, baking soda, sodium nitrite, MSG, and soy sauce. For guidance on names of ingredients that contain sodium, refer to the American Heart Association's article, "21 Ingredients (that mean sodium) to watch on the label."

- Use fresh vegetables instead of canned whenever possible.

Purchasing

- Request that vendors provide nutrition information for all products. Read Nutrition Facts labels and ingredients to determine sodium content. Compare brands before purchasing to determine if a comparable product is lower in sodium. For more information, refer to "How to Read a Food Label" in this section.

- Write food specifications for food products with no or low sodium. Make sure that the products received are the ones specified.

- Purchase lower sodium varieties of foods such as tomato products, canned vegetables, and soup. **Crediting note:** Only certain types of commercial vegetable soups credit in school meals. For more information, refer to "Crediting Soups" in section 3.

- Purchase fresh and frozen vegetables most often. When purchasing canned vegetables, specify low or no sodium.

- Reduce purchases of commercially prepared convenience foods and prepare more foods from scratch. Convenience foods are the greatest source of sodium in school meals.

Strategies for Limiting Sodium

- Purchase spices and herbs to use instead of salt and seasonings that contain salt.
- Purchase seasoning powders (e.g., garlic and onion) instead of seasoning salts.
- Purchase unsalted or reduced-salt crackers instead of regular crackers.
- Purchase old-fashioned cooked cereals (e.g., rolled oats) instead of instant cooked cereals that are high in salt.

Meal Preparation

- If canned vegetables contain added salt, rinse under cold running water for two to three minutes before heating.
- Do not add salt to boiling water when cooking pasta, vegetables, or cereal grains.
- Do not add additional salt to recipes. Eliminate or reduce the amount of added salt when possible.
- Use fresh or frozen vegetables instead of canned vegetables.
- Make cakes, biscuits, pancakes, and desserts from scratch instead of using prepared mixes. **Crediting note:** Grain-based desserts cannot credit for more than 2 oz eq per week in the NSLP. For more information, refer to "Limit for Grain-based Desserts" in section 3.
- Avoid standardized recipes that contain substantial amounts of baking soda or baking powder.
- Use spices and herb blends creatively in place of salt.
- Use seasoning powders instead of seasoning salts, e.g., garlic and onion.

Strategies for Limiting Sodium

Modifying Recipes

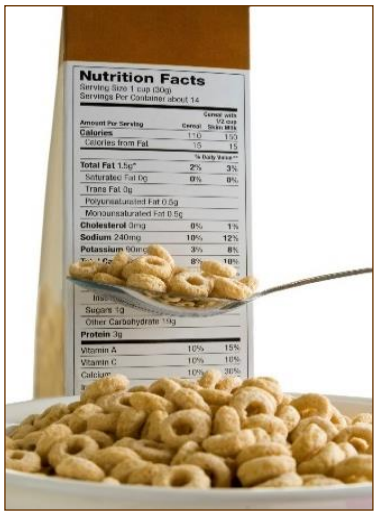
Reminder: The USDA requires that SFAs develop and follow standardized recipes for all foods prepared from scratch (refer to "Standardized Recipes" in section 2).

- Review standardized recipes and reduce or eliminate the amount of high-sodium ingredients or added salt when possible.

For additional resources on limiting sodium in school meals, visit "Sodium" in the "Dietary Specifications (Nutrition Standards for School Meals)" section of the CSDE's Meal Patterns for Grades K-12 in School Nutrition Programs webpage

Using Food Labels

The FDA's 2016 final rule, *Food Labeling: Revision of the Nutrition and Supplement Facts Labels* (81 FR 33741), changed the Nutrition Facts label to provide updated and more accurate nutrition information. Manufacturers were required to comply with these changes by July 26, 2018. Manufacturers with less than $10 million in annual food sales had an additional year to make the changes.



The FDA requires the Nutrition Facts label on most packaged foods and beverages. The Nutrition Facts label can vary among different products because it contains product-specific information for serving size, calories, and nutrient information.

The FDA requires food manufacturers to list all ingredients in the food on the label. The ingredients statement lists ingredients by weight, from most to least. The closer an ingredient is to the beginning of the list, the more of it the food contains.

Using Food Labels for School Meals

Food labels provide a variety of useful information for school nutrition programs. The examples below indicate some of ways that the Nutrition Facts label and ingredients statement help menu planners with the meal pattern requirements.

- **Meeting the dietary specifications:** Food labels help menu planners choose foods and plan menus to meet the weekly dietary specifications (calorie ranges and limits for saturated fats and sodium).

- **Comparing products:** Menu planners can use food labels and the ingredients statement to compare products and purchase healthier choices, such as choosing products with less saturated fats, sodium, and added sugars. Look for products that contain whole foods (such as meats, legumes, fruits, vegetables, whole grains, and low-fat dairy) as the first three ingredients, and that have a short ingredients list. Foods with a long ingredients list tend to be highly processed and less nutrient-dense.

- **Balancing menus:** Menu planners can use food labels to balance the nutrients in school menus. For example, if a lunch menu includes a food that is high in fat, sugar, or sodium, food labels can help the menu planner choose other foods that are low in these same nutrients to balance the overall weekly menu.

- **Avoiding crediting compliance issues with deli meats:** Products such as deli meats, hot dogs, and sausage that contain added liquids, binders, and extenders credit based on the percentage of meat in the product formula, not the serving weight. For example, to credit as 1 ounce of the MMA component, one brand of deli meat might require 1.6 ounces, while another brand might require 2.3 ounces. The ingredients statement indicates if a product contains added liquids, binders, and extenders. This alerts the menu planner that a PFS is required to determine the correct crediting information for the product. For more information, refer to the CSDE's resource, *Crediting Deli Meats in the NSLP and SBP*.

- **Determining if a PFS is required:** The ingredients statement can help menu planners determine if a PFS is required. For example, a PFS is required for grain products that contain noncreditable grains; meat products with liquids, binders, and extenders; and tempeh products that contains other ingredients beside soybeans (or other legumes), water, tempeh culture, and for some varieties, vinegar, seasonings, and herbs.

- **Meeting the WGR criteria:** The ingredients statement provides the information required to determine whether a grain product meets the USDA's WGR criteria. For more information, refer to "Part B: WGR Criteria" in section 3.

- **Meeting the crediting criteria for tofu:** To credit as the MMA component, a tofu ingredient must contain at least 5 grams of protein in a 2.2-ounce serving by weight (¼ cup volume equivalent). The Nutrition Facts label provides the information required to determine whether a tofu product meets this requirement. For more information, refer to the CSDE's resource, *Crediting Tofu and Tofu Products in the NSLP and SBP*.

- **Making nutrition information available:** Food labels help menu planners meet the requirement to make nutrition information available to students, parents/guardians, and school staff, as needed. The USDA considers providing nutrition information for foods served in school meals to be a component of reasonable meal modifications for students with a disability that restricts their diet. Examples include providing nutrition information on school menus, providing nutrition information on the school food service website, and maintaining a binder of nutrition labels in the school cafeteria or

district food service office that parents or guardians can review. This enables parents or guardians and appropriate medical personnel to determine which meals are safe for the child to eat, and which meals the SFA must modify to meet the child's specific dietary requirements.

- **Making appropriate and safe meal modifications:** The ingredients statement provides the information required for making appropriate and safe meal modifications for students with special dietary needs, such as food allergies or celiac disease. For information on meal modifications, refer to the CSDE's guide, *Accommodating Special Diets in School Nutrition Programs,* and visit the CSDE's Special Diets in School Nutrition Programs webpage.

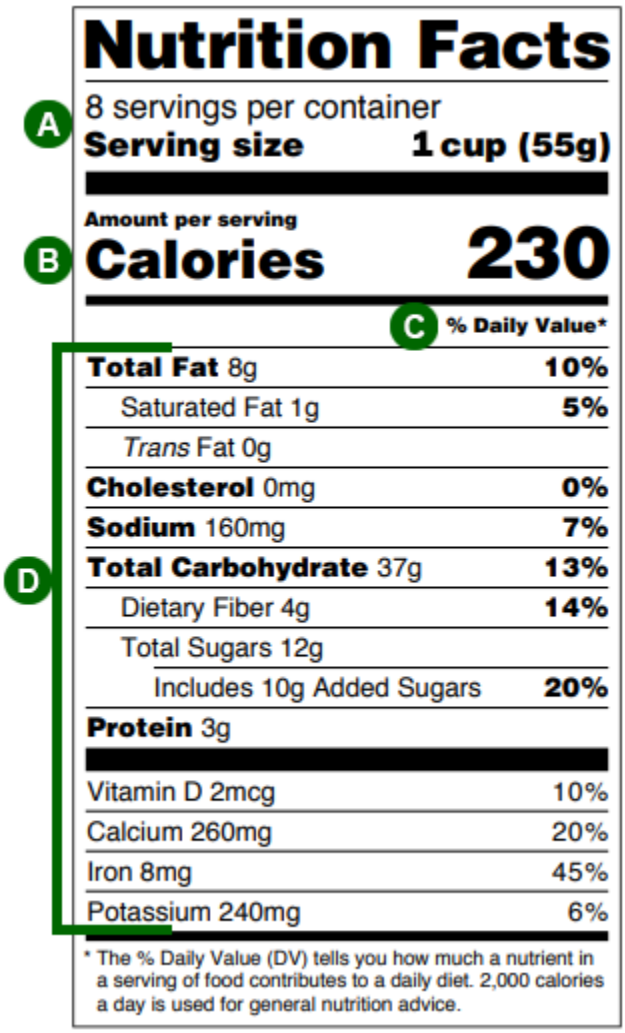
- **Meeting the Administrative Review requirements:** SFAs must obtain nutrition information for all commercially prepared foods used to prepare school meals. If a processed product does not have a Nutrition Facts panel, the SFA is responsible for obtaining the necessary information from the manufacturer. This information must be readily available for use by the CSDE in conducting the nutrient analysis of school menus, as part of the CSDE's Administrative Review of the school nutrition programs. For more information, refer to "Nutrition Information" in section 2.

Commercial processed products require a CN label or PFS to document compliance with the NSLP and SBP meal patterns. For more information, refer to "Documentation for Commercial Products" in section 2.

How to Read a Food Label

Table 6-7 shows an example of a Nutrition Facts label. The information in the main section (refer to A-D below) contains product-specific information for serving size, calories, and nutrients. The bottom section contains a footnote that explains the "% Daily Value."

Table 6-6. Sample Nutrition Facts label



The guidance below shows how to read a food label. The green circles refer to the sections of the sample Nutrition Facts label in table 6-7.

A Serving information

The serving information on the Nutrition Facts label includes serving size and the number of servings per container. Serving sizes are standardized and reflect the amount that people typically consume. Individual packages that contain between one and two servings, such as a 15-ounce can of soup, must be labeled as one serving because people typically consume the entire package.

> The serving size on the Nutrition Facts label may be different from the serving size required to meet the NSLP and SBP meal patterns. SFAs must ensure that commercial products provide the amount of each food component being credited toward the meal patterns. For information on the food components, refer to section 3.

B Calories

The nutrition information for calories is based on the **stated serving** (A). The actual amount of calories could be more or less, depending on the **actual serving**. For example, one serving (1 cup) of this product contains 230 calories. If the lunch menu includes 1½ cups, students are receiving 1½ servings and 345 calories.

C Percent Daily Value (% DV)

The % DV on the Nutrition Facts label indicates how much each in the serving contributes to a daily diet of 2,000 calories. Daily values are reference amounts of nutrients to consume or not to exceed. They are used to calculate the percent DV that manufacturers include on the label. For example, a serving (1 cup) of this product contains 10 percent of the recommended daily limit for fat, 7 percent of the recommended daily limit for sodium, and 20 percent of the recommended daily limit for added sugars.

The % DV statement is listed underneath the nutrients, at the bottom of the Nutrition Facts panel: *"T*he % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice."

D Nutrients

The Nutrition Facts labels lists key nutrients to decrease or increase for better health. The amounts of these nutrients are listed in grams (g), milligrams (mg), or micrograms (mcg).

Nutrients to decrease

Saturated fat, sodium, and added sugars are nutrients to decrease due to their adverse health effects. Eating too much saturated fat and sodium is associated with an increased risk of developing cardiovascular disease and high blood pressure. Consuming too much added sugars (more than 10 percent of total daily calories) can make it hard to meet important nutrient needs while staying within calorie limits.

- **"Total Carbohydrates"** includes dietary fiber, total sugars, and starches; but the Nutrition Facts panel lists only dietary fiber and total sugars. To determine the amount of starches per serving, add the grams of dietary fiber and total sugars, then subtract this amount from "Total Carbohydrates." For example, a serving of this product contains 37 grams of carbohydrates, 4 grams of dietary fiber, and 12 grams of total sugars. Subtracting the dietary fiber and total sugars (16 grams) from the total carbohydrates (37 grams) equals 21 grams of starches.

- **"Total Sugars"** includes naturally occurring sugars, and sugars added during processing. If a food contains added sugars, the grams (g) will be listed below "Total Sugars," e.g., "includes 4g Added Sugars," and will also be listed as a %DV (C). For examples of added sugars, refer to table 6-3.

Nutrients to increase

Dietary fiber, vitamin D, calcium, iron, and potassium have a positive impact on health, and are nutrients to increase. Eating a diet high in dietary fiber supports digestive health, can lower blood glucose and cholesterol levels, and reduce calorie intake. Diets higher in vitamin D, calcium, iron, and potassium can reduce the risk of developing osteoporosis, anemia, and high blood pressure. Many Americans do not get enough of these nutrients.

> Manufacturers may choose to include other vitamins and minerals, in addition to the required nutrients.

Label Rounding

The FDA regulations include specific requirements for rounding the numbers on the Nutrition Facts label. For example, if a food contains less than 5 milligrams of sodium, the label may indicate "0 milligrams" of sodium. As a result, if the menu planner calculates this information manually, the numbers may not add up exactly, or the percentage may be slightly different. For more information, review "Appendix H: Rounding the Values According to FDA Rounding Rules" in the FDA's *Guidance for Industry: Food Labeling Guide*.

Nutrition Claims

Some manufacturers choose to include nutrient content claims or health claims on their products. These nutrition descriptions are optional, but must be approved by the FDA and comply with the FDA's regulations.

Nutrient content claims

The Nutrition Labeling and Education Act of 1990 (NLEA) permits the use of nutrient content claims that are authorized by the FDA and made in accordance with FDA's authorizing regulations. Nutrient content claims describe the level of a nutrient in the product (such as "low fat" or "high in fiber") or they compare the level of a nutrient in a food to that of another food, using terms such as "more," "reduced," and "lite." These terms are defined by FDA regulations and mean the same thing for all foods, regardless of manufacturer.

Table 6-8 includes definitions for commonly used nutrient content claims. For additional information, review "Appendix A: Definitions of Nutrient Content Claims" and "Appendix B: Additional Requirements for Nutrient Content Claims" in the FDA's *Guidance for Industry: Food Labeling Guide,* and visit the FDA's Label Claims for Conventional Foods and Dietary Supplements webpage.

Table 6-7. Common nutrient claims on food labels

Extra lean: A serving of meat, poultry, seafood and game meats contains less than 5 grams of fat, 2 grams of saturated fats, and 95 milligrams of cholesterol.

Free: A serving contains none or a very small amount, e.g., less than 5 calories, less than 5 milligrams sodium, less than 0.5 gram of total fat, less than 0.5 gram of saturated fats, less than 0.5 gram of trans fats, less than 2 milligrams of cholesterol, and less than 0.5 gram of sugar. Other terms that may be used include "no," "zero," "without," "trivial source of," "negligible source of," "dietarily insignificant source of," and "non" (nonfat only).

Fresh: 1) A food is raw, has never been frozen or heated and contains no preservatives; or 2) the term accurately describes the products, for example, "fresh milk" or "freshly baked bread."

Fresh frozen: The food has been quickly frozen while still fresh. Blanching is allowed before freezing to prevent nutrient breakdown.

Good source: A serving contains 10-19 percent of the Daily Value (compared with a standard serving size of the traditional food) for a particular nutrient, for example "good source of fiber." Other terms that may be used include "contains" and "provides."

Healthy: A food is low in fat (3 grams or less) and saturated fats (1 gram or less and 15 percent or less of calories) and a serving contains no more than 480 milligrams of sodium, 60 milligrams of cholesterol, and at least 10 percent of the daily value for vitamin A, vitamin C, calcium, iron, protein, and fiber.

High: A serving contains 20 percent or more of the Daily Value (compared with a standard serving size of the traditional food) for a particular nutrient, for example, "high in vitamin C," "high fiber," and "high calcium." Other terms that may be used include "excellent source of" and "rich in."

Lean: A serving of meat, poultry, seafood and game meats contains less than 10 grams of fat, 4.5 grams or less of saturated fats, and less than 95 milligrams of cholesterol.

Less: The food contains 25 percent less of a nutrient or 25 percent fewer calories than a reference food.

Light: A food with one-third fewer calories or 50 percent of the fat in a traditional food. A low-calorie, low-fat food with 50 percent less sodium can also be called "light." Another term that may be used is "lite."

Table 6-8. Common nutrient claims on food labels, *continued*

Low: A serving contains no more than 40 calories, 140 milligrams of sodium, and 3 grams of fat. Other terms that may be used include "few" (calories), "contains a small amount of," "low source of," "low in," "little," and "a little**."**

Organic: A regulatory term for food that meets specific standards set by the USDA. Organic food differs from conventionally produced food in the way it is grown or produced. However, the USDA makes no claims that organically produced food is safer or more nutritious than conventionally produced food. For more information, refer to the Glossary.

More: A serving contains 10 percent or more of the Daily Value (compared with a standard serving size of the traditional food) for a particular nutrient, for example "more fiber," or "more iron." This term does not apply to meat or poultry products. Other terms that may be used include "enriched," "fortified," "added," "plus," and "more."

Percent (%) fat free: A product must be low fat or fat free and the percentage must accurately reflect the amount of fat in 100 grams of a food. For example, 2.5 grams of fat in 50 grams of food results in a "95% fat-free" claim.

Natural: For the purposes of food labeling, "natural" means that the food does not contain added colors, artificial flavors, or synthetic substances. However, it does not necessarily mean that a product is healthier or more nutritious. While the FDA allows manufacturers to use this term if a product meets these requirements, the FDA has not developed a definition for use of the term natural or its derivatives.

Reduced: A serving contains 25 percent less of a nutrient (e.g., fat, saturated fats, cholesterol, sodium) or 25 percent fewer calories than a comparable food. "Reduced" cannot be used if the reference food already meets the requirement for a "low" claim. Other terms that may be used include "reduced in," "___% reduced," "fewer," "lower," "lower in," and "less."

Source: *Guidance for Industry: Food Labeling Guide*. FDA, Revised January 2013.

Health claims

Health claims describe a relationship between a food substance (a food, food component, or dietary ingredient), and reduced risk of a disease or health-related condition. The FDA allows manufacturers to make certain health claims that are supported by scientific evidence and authorized by FDA regulations, for example, *"adequate calcium throughout life may reduce the risk of osteoporosis."*

Health claims can be used only under certain conditions, such as when the food is an adequate source of the appropriate nutrients. A reference to the claim usually appears on the front label, but the claim itself may appear elsewhere on the label. For more information, review "Appendix C: Health Claims" in the FDA's *Guidance for Industry: Food Labeling Guide,* and visit the FDA's Label Claims for Conventional Foods and Dietary Supplements and Authorized Health Claims That Meet the Significant Scientific Agreement (SSA) Standard webpages.

SFAs can use the FDA's whole grain health claim to determine whether a product meets the USDA's WGR requirement. For more information, refer to the CSDE's guide, *Meeting the Whole Grain-rich Requirement for the NSLP and SBP Meal Patterns for Grades K-12*.

Resources for Food Labels

The resources below provide information on food labels.

- Changes to the Nutrition Facts Label (FDA webpage): https://www.fda.gov/food/food-labeling-nutrition/changes-nutrition-facts-label?source=govdelivery&utm_medium=email&utm_source=govdelivery
- Final Rule (81 FR 33741): Food Labeling: Revision of the Nutrition and Supplement Facts Labels: https://www.regulations.gov/document?D=FDA-2012-N-1210-0875
- Final Rule (81 FR 34000): Food Labeling: Serving Sizes of Foods that Can Reasonably Be Consumed at One Eating Occasion; Dual-Column Labeling; Updating, Modifying, and Establishing Certain Reference Amounts Customarily Consumed; Serving Size for Breath Mints; and Technical Amendments: https://www.regulations.gov/document?D=FDA-2004-N-0258-0136
- Food Facts: New and Improved Nutrition Facts Label (FDA): https://www.fda.gov/downloads/food/labelingnutrition/ucm537178.pdf
- Food Labels (CSDE's Nutrition Education webpage): https://portal.ct.gov/SDE/Nutrition/Nutrition-Education#FoodLabels
- Guidance for Industry: Food Labeling Guide (FDA): https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-food-labeling-guide
- Health Educator's Nutrition Toolkit: Setting the Table for Healthy Eating (FDA): https://www.fda.gov/food/nutrition-education-resources-materials/health-educators-nutrition-toolkit-setting-table-healthy-eating
- The New and Improved Nutrition Facts Label – Key Changes (FDA): https://www.fda.gov/downloads/Food/LabelingNutrition/UCM511646.pdf

For additional resources, refer to "Food Labels" in the CSDE's *Resource List for Dietary Guidance and Nutrition Information* and visit the "Food Labels" section of the CSDE's Nutrition Education webpage.