

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

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.



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-ounce equivalent 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.



- **Meat/meat alternates:** 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, see "Nutrient Analysis" in section 2.

Resources for Dietary Specifications

The USDA has many nutrition and menu planning resources that can assist SFAs with providing healthy meals that meet the dietary specifications.. The USDA’s *Recipes for Healthy Kids Cookbook for Schools* features healthy 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 recipes and other resources for the federal nutrition assistance programs. Some additional resources are listed below.

- Child Nutrition Sharing Site (CNSS) (ICN):
<https://theicn.org/cnss/>
- “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>
- Dietary Specifications (Nutrition Standards for School Meals) (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>
- Menu Planning Resources for School Meals (CSDE):
<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/MealPattern/MenuPlanResourcesSchools.pdf>
- Recipes for Child Nutrition Programs (CSDE’s Menu Planning for Child Nutrition Programs webpage):
<https://portal.ct.gov/SDE/Nutrition/Menu-Planning#Recipes>

For additional resources and guidance, see “Menu Planning Resources” in section 1, “Recipe Resources” in section 2, the CSDE’s *Menu Planning for Child Nutrition Programs* webpage, and the CSDE’s resource list, *Menu Planning and Food Production*. For additional guidance on menu planning and the dietary specifications, review chapter 3 in the USDA’s *Menu Planner for School Meals*.

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, review the USDA's handout, *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

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, see “Whole Grains” in part B of section 3.

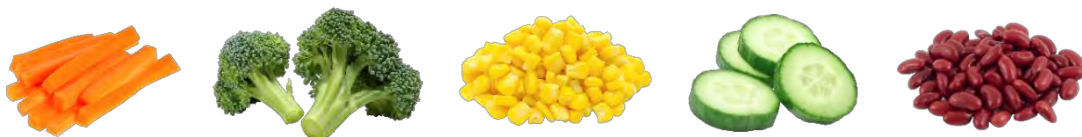


Strategies for Increasing Calories with Complex Carbohydrates

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, consult 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 recipes and read Nutrition Facts labels of commercial products for fiber content. Choose nutrient-dense foods that are naturally high in fiber. For more information, see [“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, see “Whole Grains” and “Part C: 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, see “Resource for legumes” under “Meat/Meat Alternates” 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.
- Serve whole-grain pasta-vegetable salads made with low-fat dressings.



Strategies for Increasing Calories with Complex Carbohydrates

- 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 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, see “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, see “[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, see “Whole Grains” in section 3.

Strategies for Increasing Calories with Complex Carbohydrates

- Purchase legumes (dried beans and peas) frequently. For examples of legumes, review 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, see “[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 to recipes 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

- 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 in recipes.
- 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 meat/meat alternates component, but not both in the same meal. For more information, see “Crediting Legumes as Vegetables” and “Crediting Legumes as Meat/Meat Alternates” 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 meat/meat alternates component, but not both in the same meal. For more information, see “Crediting Legumes as Vegetables” and “Crediting Legumes as Meat/Meat Alternates” 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 commercial vegetable soups credit in school meals. For more information, see “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 meat/meat alternates component but not the vegetables component, unless the food also contains an adequate amount of recognizable creditable vegetables. For more information, see “Crediting Pureed Vegetables” in section 3.
- Add rolled oats to entree recipes such as meatloaf and tacos.
- Increase the amount of whole grains (e.g., brown rice, quinoa, and whole-grain pasta) and vegetables in stews, soups, casseroles, and similar entrees.
- Make bread items such as French toast and garlic bread from 100 percent whole-grain bread.



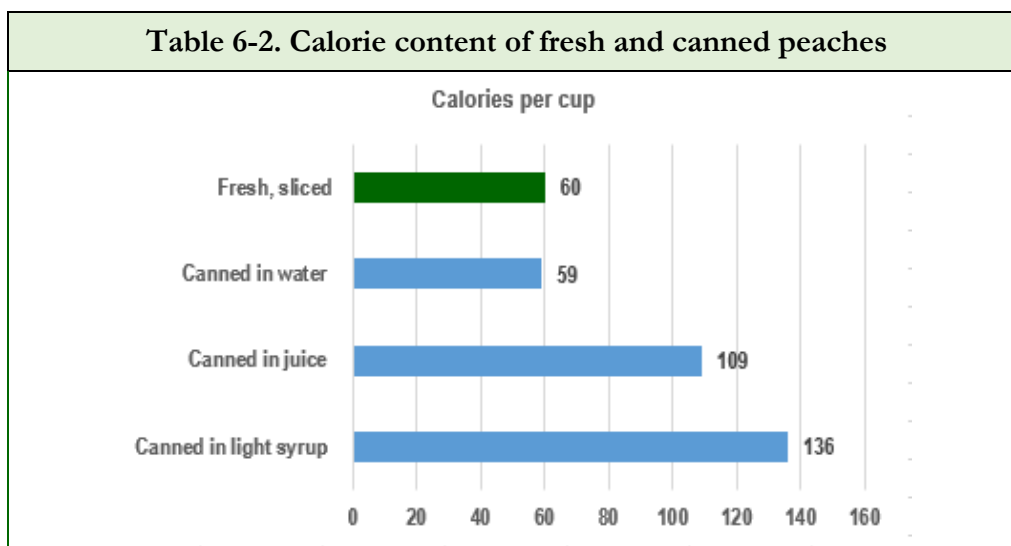
Strategies for Decreasing Calories

When school menus exceed the weekly calorie limit, the menu planner must adjust the menu to decrease calories to the appropriate grade-group level. Menu planners should 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 menu planners decrease calories in school meals. The strategies for reducing fats also help to reduce calories. For detailed guidance, see “[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, $\frac{1}{2}$ cup of grape juice contains about 80 calories while $\frac{1}{2}$ cup of fresh grapes contains about 52 calories. In addition, juice does not provide the same nutritional benefits as whole fruits. For more information, see “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 (see table 6-1).



Table 6-2. Calorie content 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, see “[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, see “Fruits Component” and “Vegetables Component” in section 3.
- **Limit additional meat/meat alternates.** Serve only enough of the meat/meat alternates component to meet the minimum daily and weekly requirement for each grade group. Additional amounts of meat/meat alternates provide more calories and may provide more saturated fats and sodium. Other strategies to reduce calories from meat/meat alternates 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 ounce equivalents per week. For more information, see “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, see “Noncreditable Foods” in section 3.

For more information on the calorie maximums and tips to improve acceptance of school meals, **review the USDA’s handout, [Fact Sheet: Calories in School Meals](#).**

Strategies for Decreasing Calories by Limiting Added Sugars

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

Strategies for Decreasing Calories by Limiting Added Sugars

sugars. Table 6-3 lists common sugars and sweeteners.

Table 6-3. Common sugars and sweeteners		
Added sugars		
Brown rice syrup	Glucose	Maple syrup
Brown sugar	High-fructose corn syrup	Nectars, e.g., peach
Corn sweetener	Honey	nectar, pear nectar
Corn syrup	Invert sugar	Raw sugar
Corn syrup solids	Lactose	Sorghum syrup
Dextrin	Malt syrup	Sucrose
Dextrose	Maltose	Syrup
Fructose	Molasses	
Fruit juice concentrate		
Artificial and nonnutritive sweeteners ¹		
Common artificial sweeteners	Sugar alcohols	“Natural” nonnutritive sweeteners ²
Acesulfame potassium (acesulfame-k, sunett, sweet & safe, sweet one)	Erythritol	Stevia (rebiana, rebaudioside A, truvia, purevia, sweetleaf)
Aspartame (nutrasweet, equal)	Isomalt	
Neotame	Lactitol	
Saccharin (sweet and low, sweet twin, sweet ‘n low brown, necta sweet)	Maltitol	
Sucralose (splenda)	Mannitol	
tagatose	Sorbitol	
	Xylitol	
	Hydrogenated starch hydrolysates (e.g., hydrogenated glucose syrups, maltitol syrups and sorbitol syrups)	
<p>¹ Unless medically necessary, the CSDE does not recommend using foods that contain artificial sweeteners, nonnutritive sweeteners, or sugar alcohols as a replacement for high-sugar foods in school meals. Choose nutrient-dense foods that are naturally low in sugars instead.</p> <p>² The term “natural” is not defined by the FDA and does not have any consistent meaning when used to describe foods or beverages.</p>		

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, consult 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 added sugars in menu items. Review recipes for foods made on site. Review the Nutrition Facts label for commercial products. Choose recipes and foods that are lowest in added sugars. Replace foods containing high levels of sugars with those containing moderate levels of sugars. For more information, see “[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 ounce equivalents per week in the NSLP. For more information, see “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 ounce equivalents per week in the NSLP. For more information, see “Limit for Grain-based Desserts” in section 3.



Strategies for Decreasing Calories by Limiting Added Sugars

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

Purchasing

- Purchase foods that are low in added sugars. Request that vendors provide nutrition information for all products. Review 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, see [“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 sugars or sweeteners to recipes when they are not listed as an ingredient.
- Compare recipes and use those that are lowest in sugars and sweeteners.

Strategies for Decreasing Calories by Limiting Added Sugars

Modifying Recipes

- 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 ounce equivalents per week in the NSLP. For more information, see “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 ounce equivalents per week in the NSLP. For more information, see “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 ounce equivalents per week in the NSLP. For more information, see “Limit for Grain-based Desserts” in section 3.



Saturated and Trans 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.

The *Dietary Guidelines for Americans* recommends keeping trans fats consumption as low as possible by limiting foods that contain artificial sources of trans fats, such as partially hydrogenated oils in margarines, and by limiting other solid fats. Trans fats increase the risk of cardiovascular disease by raising LDL cholesterol.

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	Monounsaturated	Polyunsaturated
Butter	(contain trans fats)	Canola	Soybean
Chicken fat		Olive	Corn
Coconut oil	Pork fat (lard)	Safflower	Cottonseed
Cream	Shortening		Sunflower
Hydrogenated oils	Stick margarine		
Milk fat			
Palm oil			
Palm kernel oil			

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 Fats

Trans fats are unsaturated fats that are structurally different from the unsaturated fats that occur naturally in plant foods. Most trans fats are 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.

Sources of trans fats

Sources of trans fats include partially hydrogenated vegetable oils used in processed foods such as desserts, microwave popcorn, frozen pizza, some margarines, and coffee creamer. Eliminating processed foods with partially hydrogenated oils will significantly lower children’s trans fats intake.

Trans fats are also present naturally in foods that come from ruminant animals (e.g., cattle and sheep), such as dairy products, beef, and lamb. The *Dietary Guidelines for Americans* does not recommend eliminating these foods from the diet because natural trans fats are present in only small quantities, and these foods can be important sources of nutrients.

FDA’s final rule to remove trans fats from foods

In June 2015, the FDA issued the final rule, [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. However, the FDA is allowing until January 1, 2021, for products produced prior to this time to work their way through distribution. For more information, visit the FDA’s webpage, [Final Determination Regarding Partially Hydrogenated Oils \(Removing Trans Fat\)](#).

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. Menu planners must obtain this information from the manufacturer. SFAs cannot use nutrient databases to determine trans fats values for foods used in school meals because nutrient databases do not currently have complete data for trans fats.



To meet the USDA's dietary specifications for saturated and trans fats, menu planners must be careful to limit foods with solid fats. Limiting solid fats also helps to lower total fat and cholesterol, and keep school meals within the weekly calorie range for each grade group.

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). This rule proposes to remove trans fat as a dietary specification, effective July 1, 2021. The USDA indicates that the trans fat dietary specification is no longer needed because the Food and Drug Administration (FDA) is regulating trans fat out of U.S. food supply. However, the current trans fat standard still applies until the proposed rule is finalized.

As of the date of this publication, the USDA has not finalized the proposed rule to remove the trans fat dietary specification. SFAs must continue to review Nutrition Facts labels and manufacturer specifications to ensure that all products used in school meals contain zero grams of trans fat per serving.

Strategies for Limiting Saturated and Trans Fats

Strategies for Limiting Saturated and Trans Fats

The guidance below provides strategies to assist SFAs with reducing saturated fats and eliminating artificial trans 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, consult 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. Review the Nutrition Facts label for commercial products. For more information, see [“How to Read a Food Label”](#) in this section. Choose recipes and foods lowest in saturated fats.
- Review Nutrition Facts labels and manufacturer specifications for all food products and ingredients to ensure they indicate zero grams of trans fats per serving. To eliminate trans fats, avoid products that list partially hydrogenated oils in the ingredients statement. For more information, see [“How to Read a Food Label”](#) in this section.
- Increase servings of legumes, fruits, vegetables, and whole grains. **Crediting note:** Legumes credit as either the vegetables or meat/meat alternates component, but not both in the same meal. For more information, see [“Crediting Legumes as Vegetables”](#) and [“Crediting Legumes as Meat/Meat Alternates”](#) in section 3. For information on determining if a product is whole grain, see [“Whole Grains”](#) in section 3.
- Plan only enough of the meat/meat alternates component to meet the minimum daily and weekly requirement for each grade group. Additional servings of meat/meat alternates provide more saturated fat.
- Limit use of foods that are higher in saturated fats.

Strategies for Limiting Saturated and Trans 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, see “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.
- Use broth-based soups instead of cream-based soups or prepared bases. **Crediting note:** Only certain commercial vegetable soups credit in school meals. For more information, see “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 ounce equivalents per week in the NSLP. For more information, see “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, see “[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, see “[How to Read a Food Label](#)” and “[Limiting Sodium](#)” in this section.



Strategies for Limiting Saturated and Trans 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, see “[How to Read a Food Label](#)” in this section.
- Read Nutrition Facts labels and ingredients to determine trans fats content. Be sure all food products and ingredients used to prepare school meals contain zero grams of trans fats per serving. For more information, see “[How to Read a Food Label](#)” in this section.
- Write food specifications to limit the amount of saturated and trans fats per serving. For example, specify zero trans fats and the percentage of saturated fats for entree items, side dishes, and snack foods. To eliminate trans fats, specify that products cannot contain any partially hydrogenated oils. 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, see “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 meat/meat alternates 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, see “Noncreditable Meat/Meat Alternates,” “Crediting Deli Meats, Hot Dogs, and Sausage” and “Crediting Meat/Meat Alternates in Commercial Products” in section 3.

Strategies for Limiting Saturated and Trans Fats


- 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, see “[How to Read a Food Label](#)” in this section.
- 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 ounce equivalents per week in the NSLP. For more information, see “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, see “[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.

Strategies for Limiting Saturated and Trans Fats

- Use nonstick cooking spray instead of oil or shortening for braising and sautéing.
 - 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 either the vegetables or meat/meat alternates component, but not both in the same meal. For more information, see “Crediting Legumes as Vegetables” and “Crediting Legumes as Meat/Meat Alternates” in section 3.
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- 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 ounce equivalents of the meat/meat alternates 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 and Trans 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

- 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 either the vegetables or meat/meat alternates component, but not both in the same meal. For more information, see “Crediting Legumes as Vegetables” and “Crediting Legumes as Meat/Meat Alternates” in section 3.

Strategies for Limiting Saturated and Trans Fats

- 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 ounce equivalents per week in the NSLP. For more information, see “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. If used as an ingredient in a menu item, the recipe 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 and trans fats in school meals, see “[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.



Change to Sodium Requirement for School Year 2020-21

On August 21, 2020, the USDA released information about a decision in April 2020 by the U.S. District Court for the District of Maryland that cancels the USDA's 2018 final rule, *Child Nutrition Programs: Flexibilities for Milk, Whole Grains, and Sodium Requirements* (83 FR 63775), and eliminates the previously approved meal pattern flexibility allowing target 1 to continue through the end of school year 2023-24. For more information, review question 7 in [USDA Memo SP 24-2020, CACFP 13-2020 and SFSP 13-2020: Questions and Answers for the Child Nutrition Programs during School Year 2020-21 – #5](#).

Table 6-5 indicates the sodium reduction targets for the SBP. Table 6-6 indicates the sodium reduction targets for the SBP. Sodium levels are listed in milligrams (mg).

Table 6-5. Sodium reduction targets for grades K-12 in the NSLP		
Grade Group	Target 1 (mg) Meet by July 1, 2014 (school year 2014-15)	Target 2 (mg) Meet for school year 2020-21
K-5	≤ 1,230	≤ 935
6-8	≤ 1,360	≤ 1,035
9-12	≤ 1,420	≤ 1,080

Table 6-6. Sodium reduction targets for grades K-12 in the SBP		
Grade Group	Target 1 (mg) Meet by July 1, 2014 (school year 2014-15)	Target 2 (mg) Meet for school year 2020-21
K-5	≤ 540	≤ 485
6-8	≤ 600	≤ 535
9-12	≤ 640	≤ 570

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, see “[How to Read a Food Label](#)” in this section.

Strategies for Limiting Sodium

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, consult 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

- Determine the amount of sodium in menu items. Review recipes for foods made on site. Review the Nutrition Facts label for commercial products. Choose recipes and foods lowest in sodium. For more information, see “[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 contribute to the meat/meat alternates 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, see “Noncreditable Meat/Meat Alternates,” “Crediting Deli Meats, Hot Dogs, and Sausage” and “Crediting Meat/Meat Alternates 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, see “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, review 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, see “[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 commercial vegetable soups credit in school meals. For more information, see “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 ounce equivalents per week in the NSLP. For more information, see “Limit for Grain-based Desserts” in section 3.
- Avoid 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

- Review 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, trans fats, and sodium). The CSDE
- 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 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 meat/meat alternates 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, review the CSDE’s resource, [Crediting Deli Meats in the NSLP and SBP](#).
- **Determining if a PFS is required:** For example, 1 ounce of a commercial meat product with added liquids, binders, and extenders **cannot** credit as 1 ounce of the meat/meat alternates component. Crediting depends on the amount of meat per serving, excluding added ingredients, and requires a PFS. For more information, review the CSDE’s resource, [Crediting Deli Meats in the NSLP and SBP](#).
- **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, see “Part C: WGR Criteria” in section 3.
- **Meeting the crediting criteria for tofu:** To credit as the meat/meat alternates 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, review 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, review the CSDE's [Special Diets in School Nutrition Programs](#) webpage and the CSDE's guide, *Accommodating Special Diets in School Nutrition Programs*.
- **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, see "Nutrition Information" in section 2.

SFAs **cannot** use the Nutrition Facts label to determine a commercial product's compliance with the NSLP and SBP meal patterns. SFAs must determine meal pattern compliance by reviewing the product's CN label or PFS. For more information, see "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 (see 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 6-7. Sample Nutrition Facts label

Nutrition Facts	
A	8 servings per container
	Serving size 1 cup (55g)
<hr/>	
	Amount per serving
B	Calories 230
	<hr/>
	C % Daily Value*
	Total Fat 8g 10%
	Saturated Fat 1g 5%
	Trans Fat 0g
	Cholesterol 0mg 0%
	Sodium 160mg 7%
D	Total Carbohydrate 37g 13%
	Dietary Fiber 4g 14%
	Total Sugars 12g
	Includes 10g Added Sugars 20%
	Protein 3g
	<hr/>
	Vitamin D 2mcg 10%
	Calcium 260mg 20%
	Iron 8mg 45%
	Potassium 240mg 6%
	<hr/>
	* The % Daily Value (DV) 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.

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, see 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)

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: *“The % 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, see [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 6-8. 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, see 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, review 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, see “Food Labels” in the CSDE’s resource list, *Dietary Guidelines and Nutrition Information*.

