



SMALL CHANGES LEAD
TO BIG FLAVORS

SCOPING OUT SODIUM IN SCHOOL MENUS

As a school nutrition operator, you play an important role in reducing sodium intake among our children. Best known as a component of table salt (chemical name: sodium chloride), sodium is an essential nutrient that our bodies need in certain amounts. However, most Americans—including children—consume too much sodium, about 3,400 milligrams (mg) per day! Children consume sodium throughout the day from multiple foods and locations, including school cafeterias.



Table salt is made up of 40% sodium and 60% chloride.

The *Dietary Guidelines for Americans* recommends that adults and high school-age students limit their sodium consumption to less than 2,300 mg (that's approximately one teaspoon of salt) per day. Younger children should consume even less! Too much dietary sodium can lead to chronic illnesses, such as stroke and heart disease.

Small amounts of sodium are naturally found in foods, but most sodium comes from salt added during food processing and preparation. Identifying foods or dishes that are typically high in sodium can help you quickly examine the frequency of high-sodium menu offerings throughout the week. Understanding how to apply the sodium information provided on the Nutrition Facts label will help you seek out lower-sodium versions of high-sodium menu items when developing your menu.

SNEAKY SOURCES OF SODIUM

According to the Centers for Disease Control and Prevention (CDC), almost half (48%) of the sodium in children's diets come from the following foods or mixed dishes:

- Breads, rolls, and tortillas
- Burritos and tacos
- Cheese
- Deli/cured meats (luncheon/sandwich meat, ham, and sausage)
- Pizza
- Poultry (chicken patties, nuggets, and tenders)
- Sandwiches (hamburgers, hot dogs, and sub sandwiches)
- Snack foods (crackers, chips, pretzels/snack mix, and popcorn)
- Soups



Additional sneaky sources of sodium often found in school menus include:

- Corn dogs
- Flavored milk*
- Pickles and olives
- Potato products (mashed potatoes, oven-baked fries, potato wedges, and tater tots)
- Ready-to-eat cereals
- Salad dressings (ranch, Italian, and French), mayonnaise, and soy/teriyaki sauce
- Tomato-based sauces and condiments (spaghetti sauce, marinara sauce, ketchup, and salsa)

*Additional sodium is added to flavored milk during processing.



Limiting the frequency of high-sodium menu items served within a weekly menu will help you meet the weekly sodium targets.

Consider the following lunch menu:

1 Circle or highlight sneaky sources of sodium you notice on the menu. Which items could be served less frequently?

2 Next, let's look at the menu items categorically, keeping in mind we only have a one-week menu (versus a cycle menu) and do not know the actual sodium quantities.

Monday	Tuesday	Wednesday	Thursday	Friday
Main Entrée				
Turkey and Cheese Sandwich	Chicken and Cheese Tortilla	Chicken Nuggets	French Toast Sticks Sausage Patty	Beef Teriyaki Dipper Fried Rice
Vegetables				
French Fries Broccoli Tossed Salad	Mexicali Corn Refried Beans Tossed Salad	Mashed Potatoes Carrot Sticks Tossed Salad	Sweet Potato Fries Carrot Raisin Salad Tossed Salad	Celery Chinese-Style Veggies Tossed Salad
Fruit				
Apples Bananas Peaches	Apples Bananas Pears	Apples Bananas Fruit Cocktail	Apples Bananas Oranges	Apples Bananas Peaches
Condiments				
Ketchup Mustard Salad Dressing	Ketchup Mustard Salad Dressing	Ketchup Mustard Salad Dressing	Syrup Salad Dressing	Salad Dressing
Milk				
Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain	Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain	Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain	Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain	Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain

Main Entrée:

The Turkey and Cheese Sandwich, Chicken and Cheese Tortilla, and Chicken Nuggets are all sneaky sources of sodium.

- Limit your highest sodium entrée menu items to two per week.
- Pair high-sodium entrées with lower-sodium versions or entrées. For example, offer another option with the Turkey and Cheese Sandwich on Monday—a Turkey Sandwich without cheese. Serving a lower-sodium alternate version or second entrée is another avenue in which to lower the sodium average for the day.

Vegetables:

Three potato products—French Fries, Mashed Potatoes, and Sweet Potato Fries—are provided on this menu!

- Offer potato products only once or twice per week. Consider offering another fresh, frozen, or low-sodium canned vegetable as an alternative.

Fruit:

Naturally low in sodium, fruit will be among the lowest sodium items offered on any menu.

- Increasing the amount and variety of fruit offered may help offset the consumption of higher-sodium items.

Condiments:

The sodium from Ketchup and Salad Dressing can add up quickly! Is Ketchup necessary on Tuesday?

- Only provide a condiment when it is intended to go with a specific menu item. Consider limiting condiment packets or self-service of condiments.

Milk:

On average, flavored milk provides about 50% more sodium than unflavored milk.

- Consider removing flavored milk from the menu or reducing the frequency in which it is served.

Compare this menu to the menu on the previous page. **Bolded menu items indicate a product substitution or an addition to the menu. Menu items with a strike-through were removed from the menu. Limiting the frequency of high-sodium items can take various forms.**

To identify and limit the highest sodium entrées to two per week, the cycle menu and sodium amounts are needed. However, some minor adjustments to this week's entrées helped lower its sodium average.

Monday	Tuesday	Wednesday	Thursday	Friday
Main Entrée				
Turkey and Cheese Sandwich	Build-Your-Own-Taco	Chicken Nuggets	French Toast Sticks Sausage Patty or Omelet	Beef Teriyaki Dipper Fried Rice
Alternate Entrée				
Turkey Sandwich	Turkey Sandwich	Turkey Sandwich	Turkey Sandwich	Turkey Sandwich
Vegetables				
Roasted Root Veggies Broccoli Tossed Salad	Mexicali Corn Refried Beans Tossed Salad	Mashed Potatoes Carrot Sticks Tossed Salad	Sweet Potato Fries Carrot Raisin Salad Tossed Salad	Celery Chinese-Style Veggies Tossed Salad
Fruit				
Apples Bananas Peaches Mixed Berry Cup	Apples Bananas Pears Strawberries	Apples Bananas Fruit Cocktail Pineapple Chunks	Apples Bananas Oranges Mixed Berry Cup	Apples Bananas Peaches Strawberries
Condiments				
Salad Dressing Ketchup	Salad Dressing Ketchup Mustard	Ketchup Mustard Salad Dressing	Syrup Salad Dressing	Salad Dressing
Milk				
Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain	Milk, 1% Plain Milk, Skim Plain Milk, 1% Chocolate	Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain	Milk, 1% Plain Milk, Skim Plain Milk, 1% Chocolate	Milk, 1% Chocolate Milk, 1% Plain Milk, Skim Plain

Main Entrée:

A Build-Your-Own Taco was substituted for the Chicken and Cheese Tortilla. Allowing students to choose their own toppings can also help lower sodium intake.

An Omelet was added as a lower-sodium alternative to the Sausage Patty.

Alternate Entrée:

Adding one or more lower-sodium alternative entrées, such as a Turkey Sandwich (without cheese), is another avenue to reduce the frequency of consumption of high-sodium entrées. You could offer the same or a unique alternative entrée daily.

Vegetables:

Potato products generally contain more sodium than other vegetable options and are frequently served with condiments. On Monday, French Fries were substituted with Roasted Root Vegetables to reduce the number of potato products on the weekly menu. This substitution also allowed for the removal of Ketchup from the menu that day.

Fruit:

The variety of fruit on the menu was increased to encourage students to select it as a meal component. More students selecting fruit may help displace the consumption of higher-sodium items.

Condiments:

Ketchup was removed from Tuesday's menu as it was not paired with a specific menu item. You can review previous production records "number of portions served" to help justify the removal of condiments from the menu.

Milk:

Chocolate Milk was removed from the menu on Tuesday and Thursday. If you are considering removing flavored milk from your menu or reducing the frequency in which it is served, garnering support from your Local Wellness Committee may prove helpful. Open communication explaining "why" with students and parents is strongly encouraged.

FINDING SODIUM IN THE NUTRITION FACTS LABEL

Now that you recognize food products that may be high in sodium, let's review where sodium amounts can be found to identify food products that are lower in sodium. Sodium and other nutrition information are located on the **Nutrition Facts label**, which is usually placed on the outermost packaging of a food product. If the Nutrition Facts label is not readily available, nutrient information can be found with a food product's specification sheet or the manufacturer's label.

After you find the Nutrition Facts label, locate the **Serving size** in the serving information near the top of the label and **Sodium** in the list of nutrients. The sodium amount listed refers to the amount of sodium contained in one serving of the product (milligrams of sodium per serving of product).

Now you try!

Sometimes the Nutrition Facts label doesn't reflect the actual serving size of the food product used in a school nutrition program. When this occurs, it's important to know how to calculate accurate nutrient amounts.

For example, if a high school lunch program operator wanted to serve six (6) chicken nuggets instead of five (5), how would they use the Nutrition Facts label provided on this page to calculate the total amount of sodium in six (6) nuggets?

Nutrition Facts	
177 servings per container	
Serving size	5 Pieces (77g)
Amount Per Serving	
Calories	140
% Daily Value*	
Total Fat 6g	8%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 50mg	17%
Sodium 250mg	11%
Total Carbohydrate 3g	1%
Dietary Fiber 0g	0%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Protein 19g	38%

STEP 1:

Calculate the amount of sodium per nugget

Amount of sodium ÷ Number of pieces per serving = Amount of sodium per piece

$$250 \text{ mg sodium} \div 5 \text{ nuggets} = 50 \text{ mg of sodium per nugget}$$

STEP 2:

Multiply the amount of sodium per nugget by the new serving size

Amount of sodium per piece x New number of pieces per serving =
Amount of sodium per serving

$$50 \text{ mg sodium per nugget} \times 6 \text{ nuggets per serving} = 300 \text{ mg of sodium per serving}$$

Please visit FDA's [What's New with the Nutrition Facts Label](#) to learn more about the new Nutrition Facts label!

RESEARCHING HIGH-SODIUM MENU ITEMS

Finding lower-sodium versions of high-sodium menu items is another approach you can use to reduce the total amount of sodium in your school menu. The variability or range of sodium in high-sodium menu items is typically quite large. You can utilize vendors' catalogs, food databases, and engage in general market research to determine where your menu items fall within the sodium range of other like items.

Check out [FoodData Central](#), the USDA food composition database.

Use the following menu template to investigate your high-sodium menu items' sodium content:

- Write in a typical weekly menu.
- Circle menu items known to be higher in sodium.
Note the sodium content value for each high-sodium menu item.

- Scan the market to see if lower-sodium versions of your circled menu items are available.
- If lower-sodium versions of your menu items are available, consider product substitution. Check out the worksheet [Sodium Swaps: Utilizing Product Substitution](#) to learn more about finding lower-sodium products and recipes for school menus.

Monday	Tuesday	Wednesday	Thursday	Friday
Main Entrée				
Vegetables				
Fruit				
Condiments				
Milk				

Adjusting the frequency in which high-sodium menu items are served and finding lower-sodium versions of existing menu items are small changes that can make a big difference in your weekly sodium total!

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