



STRATEGIES, TIPS, AND TRICKS TO REDUCE SODIUM AND ENHANCE FLAVOR

In school nutrition programs, reducing the sodium content of a menu takes time. Recipes, food products, and menu items must be evaluated, revised, or replaced with lower-sodium versions, while maintaining student acceptability. For example, identifying higher-sodium products and ingredients allows you to replace items or balance your menu with lower-sodium options. This small step can lead to a big reduction in your weekly sodium average. Incorporating a variety of flavor enhancers and cooking techniques can help increase the flavor and reduce the need for high sodium products. Take it one strategy, tip, and trick at a time!

STRATEGIES TO REDUCE SODIUM

Look for lower-sodium versions of products in each procurement cycle (the process of selecting vendors and purchasing goods and services from them). Follow the steps outlined in ICN's [Working With Your Procurement Partners](#) worksheet to engage with brokers and vendors to help you find lower-sodium versions of products, or alternative lower-sodium foods similar to those on your current menu.

Keep in mind that recipes may need to be re-standardized if certain ingredients are substituted. Always test and standardize a recipe to the specific ingredients and equipment used in your food service operation. Follow the steps outlined in the [USDA Recipe Standardization Guide for School Nutrition Programs](#). Remember to test new products and recipes with students for acceptability before making menu changes.

ICN's [Developing, Implementing, and Assessing Menu Surveys](#) and [Planning, Implementing, and Assessing Taste-Test Surveys](#) tip sheets provide ideas on implementing menu and taste test surveys.

Take a menu item inventory. Review your heat-and-serve and convenience food products to evaluate which can be transformed into speed-scratch recipes with little effect on labor. ICN's worksheet, [Popular Speed-Scratch Menu Items](#), might give you some ideas! Aim to replace one high sodium menu item at a time with a speed-scratch recipe, with a possible goal of one or two per school year. Be sure to evaluate the recipes' labor and food costs to guarantee successful implementation.

Balance the use of high sodium ingredients and products.

When developing a menu, be mindful of higher-sodium ingredients, such as cheese. Rather than removing the cheese, consider balancing higher-sodium options with lower-sodium options. For example, when offering burgers, give students a choice between a hamburger and a cheeseburger to reduce the overall amount of cheese consumed. When serving a high sodium menu item such as pizza, balance the menu with fresh fruits and vegetables, which are naturally low in sodium.

ICN's worksheets, [Setting Weekly and Daily Sodium Goals](#) and [Weighted Nutrient Analysis of Sodium](#), provide more tips for balancing the sodium in your menus to meet the sodium targets.

Incorporate more fruits and vegetables. In addition to adding more whole fruits and vegetables as sides to your daily and weekly menu, consider adding more produce and low sodium legumes to mixed-dish recipes. For example, instead of:

- Heat-and-serve mac-and-cheese, add broccoli for "[Mac-n-Trees](#)"
- Heat-and-serve all-meat chili, add no or low sodium beans to increase the yield, or add a plant-based meat/meat alternate (M/MA)



After modifying a recipe, you need to re-calculate how the menu item credits to the meal pattern. Use [Appendix A: Recipe Analysis Workbook](#) in the [Food Buying Guide for Child Nutrition Programs](#) to determine the meal pattern contribution for your recipes. After creating a USDA eAuthentication account, you can also access the Recipe Analysis Workbook via the [Food Buying Guide Interactive Web-Based Tool](#) or [Mobile App](#).

The [Child Nutrition Recipe Box](#) is a great resource to find standardized recipes that include the desired ingredients.

Focus on flavor. Salt enhances the flavor of food. When revising a recipe to reduce sodium, do not remove or reduce salt without replacing it with flavor from spices, herbs, or culinary acids, which are naturally low in sodium. Use the following ideas for flavor development:

- Purchase unseasoned, pre-cooked products that you can add flavor to, which allows you to control the amount of sodium, customize your menus, and make them appealing to your students. Unseasoned, pre-cooked products are helpful for menu development and inventory control because they can be cross-utilized in different recipes. Some examples include:
 - Flavor unseasoned cooked or raw ground beef with a sodium-free taco spice blend for taco meat or a lower-sodium tomato sauce for sloppy joe's.
 - Spice up unseasoned frozen baked potato wedges with sodium-free Ranch or Cajun spice blends.
 - Add a blend of fresh or dried herbs to a pre-cooked roasted chicken to make an herb-roasted chicken.
- Add fresh herbs as a garnish to entrées. Cilantro and parsley are generally affordable for schools to buy in bulk and are easy to grow in a school garden!
- Consider adding culinary acids, such as vinegar and citrus (lemon, lime, and pineapple juices), to brighten and highlight the natural flavors of the food without adding any additional sodium. Add a squeeze of lime juice to taco meat or a splash of vinegar to beans.



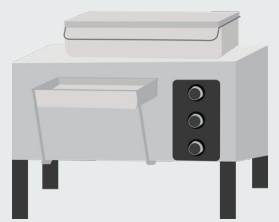
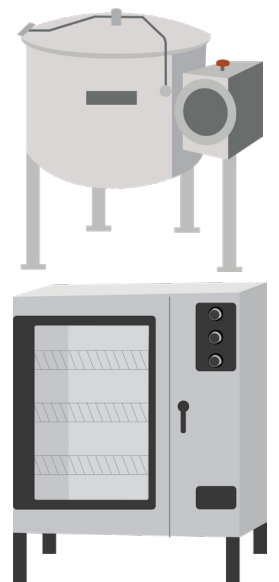


Always taste the food when developing flavors to ensure proper seasoning amounts and acceptability. This is an important part of the product evaluation phase of standardizing a recipe.

ICN's [Mindfully Seasoning Your Menus](#) worksheet provides ideas of how to build a flavorful menu by purchasing or creating lower-sodium or sodium-free seasonings, condiments, sauces, and spice blends.

The Culinary Institute of Child Nutrition (CICN) provides [iBites Recipe Videos](#), which feature how to use spices, herbs, and culinary acids, as well as a set of [Herbs and Spices Posters](#), found on ICN's *Shaking It Up!* website under "Other Resources." The posters feature how to use dried spices, dried and fresh herbs, and spice blends. The Spice Blends poster features 12 different spice blend recipes you can create.

Cooking techniques that maximize flavor development. The following simple cooking techniques and strategies, in combination with seasoning, help develop flavor.

Cooking Technique*	Definition	Equipment	When to Add Seasoning	Recipe Examples
Roasting	A high heat cooking method in the oven	Oven 	Before	Harvest Delight Herb Roasted Potatoes
Sautéing	A dry heat cooking method; uses a small amount of oil	Tilt skillet preferred; can be done in the oven 	During	Chicken Fajitas Collard Greens
Stir-frying	A high heat cooking method in a lightly oiled pan (such as a wok) while stirring continuously	Tilt skillet preferred; can be done in the oven 	During	Chicken Stir Fry Chinese-Style Vegetables
Steaming	A moist heat cooking method that uses hot water vapors	Steamer or “combi” oven in a 2” perforated pan preferred; can also use a tilt skillet or oven 	After	Honey Carrot Coins

*Check out ICN’s *Roasting Vegetables* [Manager’s Corner](#) lesson plan and the [Cooking Methods and Recipes](#) videos for an overview of different cooking techniques.

TIPS AND TRICKS FOR USING LOWER-SODIUM PRODUCTS

As you consider incorporating lower-sodium products into your menu, below are a few tips and tricks to consider. ALWAYS taste test new products and recipes with your students!

Product	Lower-Sodium Options	Tips and Tricks
Bread/buns	<ul style="list-style-type: none"> • Lower-sodium bread/buns 	<ul style="list-style-type: none"> • Season lower-sodium bread/buns with garlic powder to mimic a salty flavor. • Add variety to bread/buns by seasoning with Italian herbs and spices or other dried herbs to create visual appeal and enhance flavor.
Breaded and seasoned meats/poultry	<ul style="list-style-type: none"> • Lower-sodium breaded, unseasoned meat/poultry • Unbreaded meat/poultry • Pre-made fresh burgers or chicken 	<ul style="list-style-type: none"> • Reduce the use of seasoned or breaded chicken products to streamline inventory and control sodium. • Let students add low sodium sauces to unbreaded chicken to customize flavor (sriracha ranch, BBQ ranch, etc.). • Buy unseasoned chicken strips and season with sodium-free spice blends.
Canned beans	<ul style="list-style-type: none"> • Low sodium or no-salt-added canned beans • Individually quick-frozen (IQF) or dried beans 	<ul style="list-style-type: none"> • Generally, it is a good practice to rinse and drain canned beans to reduce the sodium. However, some recipes require the bean liquid, so be sure to read the recipe first. • If purchasing no-salt-added canned beans, they may need to be cooked longer for a creamier and softer consistency.
Canned tomato products	<ul style="list-style-type: none"> • Low sodium or no-salt-added canned tomato products 	<ul style="list-style-type: none"> • Enhance flavor with herbs, spices, and acids. For example, you can customize plain, crushed tomatoes with a salt-free Italian or pizza seasoning for a low sodium pizza sauce.
Canned vegetables	<ul style="list-style-type: none"> • Low sodium canned vegetables • Fresh or IQF vegetables; quality and appearance are better! 	<ul style="list-style-type: none"> • For the best flavor and nutrient content, purchase fresh produce in season. • Drain and rinse canned vegetables to reduce sodium. • When steaming, always thaw frozen vegetables to help preserve food quality. • Consider roasting vegetables for added flavor. Avoid thawing frozen vegetables before roasting them to help maintain their crisp texture and quality.
Cheese	<ul style="list-style-type: none"> • Lower-sodium cheese 	<ul style="list-style-type: none"> • Swiss, Monterey Jack, cheddar, and mozzarella cheeses are lower in sodium than processed cheeses, such as American. • Pair cheese with ingredients lower in sodium, such as fresh fruits and vegetables. • Make cheese available as an accompaniment to sandwiches or burgers only upon request.
Condiments	<ul style="list-style-type: none"> • Lower-sodium condiments 	<ul style="list-style-type: none"> • Make your sauces/dips in-house. Look for other flavors to replace the salt: herbs, spices, and acids. • Offer and limit condiment packets vs. using self-serve dispensers.
Deli/cured meats	<ul style="list-style-type: none"> • Lower-sodium deli/cured meats • Freshly cooked meats 	<ul style="list-style-type: none"> • Purchase lower-sodium deli/cured meats. • Offer sandwiches that use whole meat products (meatballs, diced chicken, chicken strips, shredded chicken, turkey roast, pulled pork, and plant-based options). • Reduce the meat in a sandwich by half and replace with another creditable meat/meat alternate, such as hummus.
Salad dressings	<ul style="list-style-type: none"> • Speed-scratch 	<ul style="list-style-type: none"> • Make your own salad dressings. Start with the most popular, like ranch. Once the ranch recipe production is successful, and the students have accepted the new flavor profile, customize and introduce other flavors (BBQ ranch, salsa ranch, sriracha ranch).
Soups	<ul style="list-style-type: none"> • Lower-sodium soups • Speed-scratch 	<ul style="list-style-type: none"> • Implement speed-scratch versions for sodium control. <ul style="list-style-type: none"> • Use low sodium or no-salt-added broth or soup base. • Use water and season with fresh or dried herbs to add flavor.

ACTIVITY: SLASH THE SALT AND FOCUS ON FLAVOR

Using the information in this worksheet, think about how you can lower the sodium content and improve the taste of a chicken fajita recipe. Begin by reviewing the main ingredient list of a chicken fajita recipe provided in the left-hand column. Then, list the ingredients you would change or add to the recipe to lower the sodium content in the middle column. Last, list the culinary techniques you would use to enhance the recipe's flavor in the right-hand column.

Chicken Fajita Recipe Ingredients	Ingredients to Change or Add to Reduce Sodium	Culinary Techniques to Enhance Flavor
<p><i>Fajita chicken strips, frozen, cooked</i></p> <p>Green peppers</p> <p>Onions</p> <p>Canned corn</p> <p>Canned tomatoes</p> <p>Canned salsa</p> <p>Flour tortillas</p>	<p><i>Unseasoned chicken strips</i></p>	<p><i>Incorporate a sodium-free spice blend</i></p>



Now, check out this [Chicken Fajitas - USDA Recipes for Schools](#). Review how herbs, spices, culinary acids, and culinary techniques are used to reduce sodium and enhance the flavor of this recipe in the example below.

The recipe features lower-sodium, unseasoned chicken strips.

A sodium-free spice blend jazzes up the chicken!

Frozen corn adds a fresh flavor without the salt.

No-added-salt tomatoes and low sodium salsa keeps the sodium in check.

Fresh squeezed lime juice adds a spritz of acid that brightens flavors.

Fresh peppers and onions are sautéed for added flavor.

Consider adding affordable fresh herbs, such as fresh cilantro, to increase presentation appeal and add flavor.

Chicken Fajitas

NSLP/SBP CREDITING INFORMATION

One fajita provides 2 oz eq meat, 1/8 cup starchy vegetable, 1/8 cup additional vegetable, and 1 oz eq grains.

Ingredients	100 servings	
	Weight	Measure
Frozen chicken strips, cooked, thawed	13 lb	3 gal 2 qt
Ground black or white pepper		2 Tbsp 2 tsp
Garlic powder		2 Tbsp 2 tsp
Chili powder		1/4 cup
Ground cumin		1/4 cup
Dried oregano		1 Tbsp 1 tsp
Ancho chili powder	3 1/2 oz	3/4 cup
Fresh green bell peppers, diced	1 lb	3 cups
Fresh onions, diced	1 lb 8 oz	1 qt 1/2 cup 3 Tbsp
Frozen corn, thawed, drained	4 lb 8 oz	3 qt 1/4 cup 3 Tbsp 2 tsp
Canned no-salt-added diced tomatoes, drained	2 lb	3 1/4 cups 3 Tbsp 1 tsp (approx. 1/4 No. 10 can)
Canned low sodium salsa	2 lb	3 3/4 cups (approx. 1/4 No. 10 can)
Sugar		1/4 cup
Canola oil		1 cup
Paprika		1 Tbsp 1 tsp
Fresh limes	8 each	8 each
Whole-grain tortillas, 8"	9 lb 6 oz	100 each (1 oz each)

Directions

1. Combine chicken, pepper, garlic powder, chili powder, cumin, oregano, and ancho chili powder in a large bowl. Stir well. Cover tightly. Allow chicken mixture to marinate for 12–24 hours. **Critical Control Point: Cool to 41 °F or lower within 4 hours. Critical Control Point: Hold at 41 °F or below.**
2. Place marinated chicken in a large stock pot. Cook uncovered over medium–high heat for 2 minutes. **Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.** Set aside for Step 6.
3. In a medium stock pot, add peppers and onions. Cook uncovered over medium–high heat until onions are translucent. Set aside for Step 6.
4. In a medium stock pot, add corn, tomatoes, salsa, sugar, oil, paprika, and lime juice. Simmer uncovered for 5 minutes. Stir occasionally. Set aside for Step 6.
5. Combine chicken, peppers, onions, and corn mixture in a large bowl. Toss well.
6. Using a rounded No. 8 scoop, portion 1/2 cup 2 1/3 tsp (about 4 1/3 oz) chicken mixture on a tortilla. Spread filling on half of tortilla, and fold in other half like a taco. Place 25 fajitas on each steam table pan (12" x 20" x 2 1/2"). For 100 servings, use 4 pans. **Critical Control Point: Hold for hot service at 135 °F or higher.**
7. Serve 1 fajita.

***ALWAYS test and standardize a recipe to your specific ingredients and equipment.** Follow the steps outlined in the [USDA Recipe Standardization Guide for School Nutrition Programs](#).

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