



MODULE 2:

Reducing Sodium, Limiting Added Sugars, and Cooking with Plant-Based Proteins

This workbook complements the corresponding online module in Canvas and is for you to use as you would like. Make notes of things you want to remember and write down questions for your director or to ask the chefs when you see them for the hands-on training. All videos, handouts, and activities are online in Canvas.



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**See what you already know!
Take the pre-quiz in Canvas!**



DIETARY GUIDELINES (DGA)

Description:

In this module, participants will learn how school nutrition programs currently meet the Dietary Guidelines for Americans and how they can improve! Strategies for reducing sodium, limiting added sugars, and cooking with plant-based proteins will be discussed.

Professional Standards - Learning Codes:

1110 - USDA Nutrient Requirements

1310 - Dietary Guidelines for Americans, MyPlate, & School Nutrition

1320 - General Nutrition

2130 - Culinary Skills

Objectives:

- Describe how the Dietary Guidelines (DGA) relate to school meals.
- Recall DGA recommendations for salt, added sugars, and protein foods.
- Define sodium and list sources.
- Describe ways to reduce sodium in recipes.
- Identify added sugars versus natural sugars.
- Explain how to limit added sugars.
- Define plant-based proteins.
- Demonstrate how and why to include them in school menus.

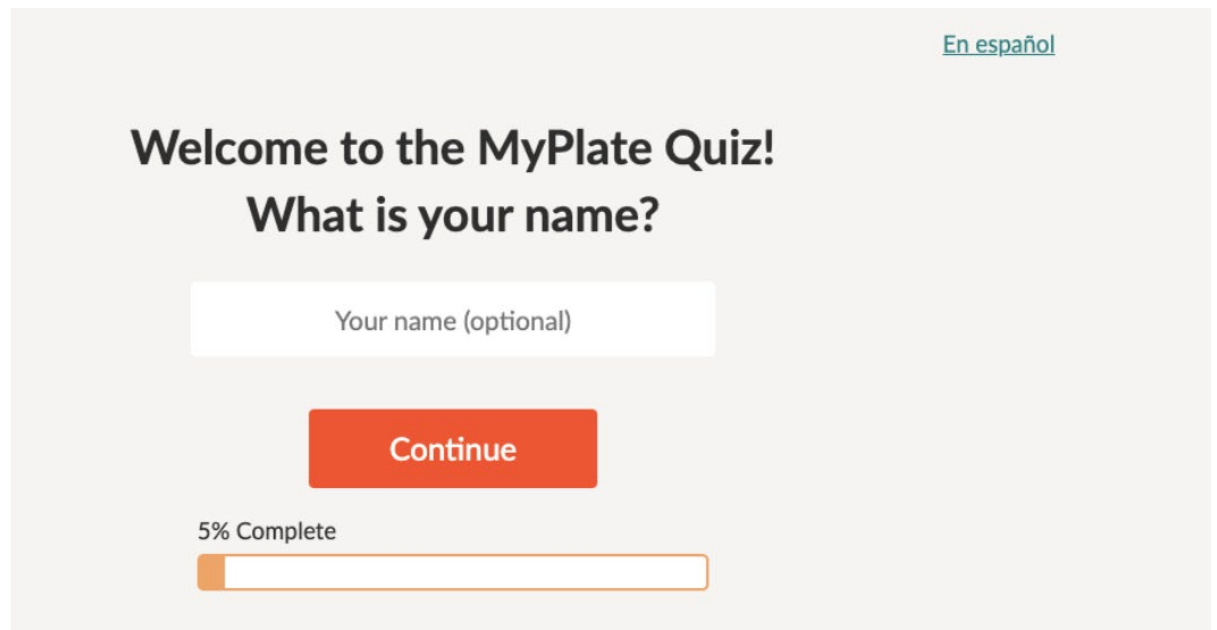
DIETARY GUIDELINES RECOMMENDATIONS

Use the space below to take notes on anything new you learned or questions you had while you listened to the video presentation or read the transcript.

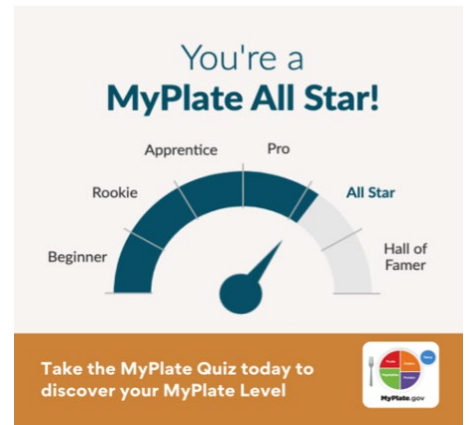
Activity Time!

Travel to the [MyPlate website](https://www.myplate.gov) and take the fun MyPlate Quiz! It's quick and fun!

https://www.myplate.gov/form/myplate-quiz#question_1

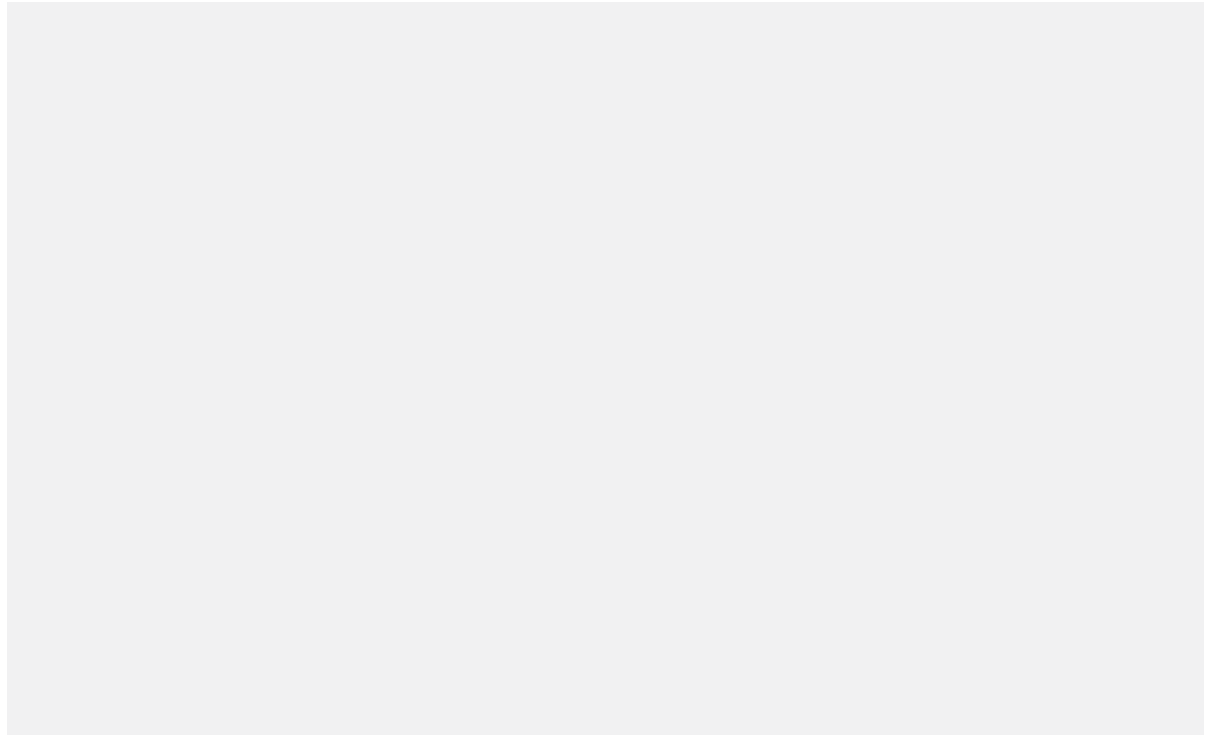


Share your results from the multiple-choice questions. Are you a Beginner, Rookie, Apprentice, Pro, All-Star, or Hall of Famer? Take a minute to read your results and personal resources!



REDUCING SODIUM

Listen to the video presentation or read the transcript about reducing sodium. Consider these questions. Was there anything that surprised you about sodium? What culinary techniques and spices or herbs are you currently using in your program to reduce sodium and enhance flavors?



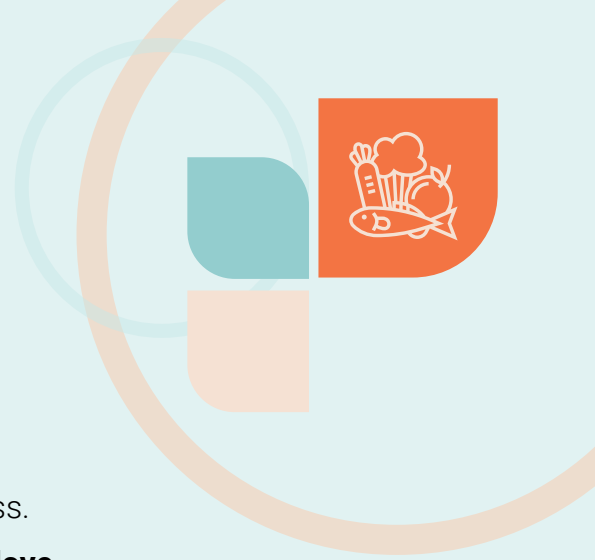
Bonus video! Watch Chef Kelly demonstrate using fresh herbs and spices, proper measuring, and culinary techniques to build flavors.

Review the “Cut Down on Sodium” handout from the Office of Disease Prevention and Health Promotion for more information.

Cut Down on Sodium

Eating too much sodium (salt) can raise your risk of high blood pressure, heart attack, and stroke. The good news is that cutting down on sodium can help lower your blood pressure and keep your heart healthy. Most people eat too much sodium and need to eat less.

Learn how to cut down on sodium – and still enjoy the foods you love.



What is sodium?

Sodium is a mineral that's found in salt. Whenever you add salt to your food, you're adding sodium. But most of the sodium we eat doesn't come from our salt shakers! Sodium is in almost all processed and prepared foods we buy, like ready-to-eat meals and restaurant meals.

There's often a lot of sodium in popular foods like:



Sandwiches, burgers, and tacos



Rice, pasta, and other grain dishes



Pizza



Soup

And a lot of the sodium in those foods comes from ingredients like:

- Processed meats, like deli meats (including turkey), sausages, and pepperoni
- Sauces and dressings
- Instant flavored foods, like flavored rice and noodles



Watch out for hidden sodium

Foods that don't taste very salty can still add a lot of sodium to your plate. For example, the sodium in bread, tortillas, cheese, and condiments can really add up.

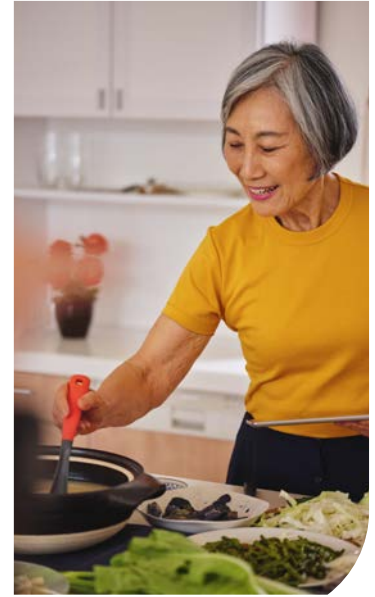
How much sodium is too much?

We only need a small amount of sodium to stay healthy, but most people get too much. Try to stay under these limits each day:

- **Adults and teens ages 14 and older:** Aim for no more than 2,300 milligrams (mg) of sodium a day
- **Children ages 9 to 13:** Aim for no more than 1,800 mg of sodium a day
- **Children ages 4 to 8:** Aim for no more than 1,500 mg of sodium a day
- **Children ages 1 to 3:** Aim for no more than 1,200 mg of sodium a day

If you have high blood pressure, you may need to limit sodium even more. Ask your doctor what amount is right for you.

And remember, **sodium adds up fast!** There's over 1,200 mg of sodium in the average club sandwich — and that's over half the daily limit for adults.



How can I cut down on sodium?

You don't have to give up all your favorite foods — just try these tips to cut down on sodium.

Cook more meals at home

Remember, most foods prepared outside of the home are high in sodium, including prepared or packaged foods you buy at the store and foods from restaurants. Cooking your own meals puts you in control! Just remember to choose ingredients that are low in sodium.

- Too busy to cook every night? Start by making dinner just 1 night a week — or make a big batch so you'll have leftovers to enjoy the next day.
- Looking for new, healthy recipes to try? Check out the MyPlate Kitchen tool at [MyPlate.gov/MyPlate-Kitchen](https://www.myplate.gov/MyPlate-Kitchen) — and select "Reduced sodium" under Nutrition Focus.

Check the label

Check the Nutrition Facts label to see if foods are **low** or **high** in sodium. Look at the % Daily Value (DV):

- **5% DV or less** is a **low** source of sodium
- **20% DV or more** is a **high** source of sodium

More often, choose foods that are lower in sodium.

Nutrition Facts

4 servings per container

Serving size 1 cup (227g)

Amount per serving

Calories **280**

% Daily Value*

Total Fat 9g **12%**

Saturated Fat 4.5g **23%**

Trans Fat 0g

Cholesterol 35mg **12%**

Sodium 850mg **37%**

Total Carbohydrate 34g **12%**

Dietary Fiber 4g **14%**

Total Sugars 6g

Includes 0g Added Sugars **0%**

Protein 15g

Vitamin D 0mcg **0%**

Calcium 320mg **25%**

Iron 1.6mg **8%**

Potassium 510mg **10%**

* 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.

Try these healthy lower-sodium swaps

- Add flavor with herbs and spices instead of salt
- Snack on crunchy veggies or unsalted nuts instead of salted chips or pretzels
- Choose fresh chicken and turkey, lean meats, or seafood instead of deli meats or sausages

Look for lower-sodium options when you eat out

- At restaurants, ask for nutrition information and choose dishes that are lower in sodium
- Get dressings and sauces on the side – and only use what you need
- Eat a smaller portion or split a meal with a friend

Remember, small changes make a big difference! So **start simple** – begin cutting down on sodium today.

- Learn about the Dietary Guidelines for Americans and get more resources to help you eat healthy at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov)
- Find more healthy eating tips and recipes at [MyPlate.gov](https://www.myplate.gov)
- Learn about the DASH eating plan that can help lower your blood pressure at [nhlbi.nih.gov/Health-Topics/DASH-Eating-Plan](https://www.nhlbi.nih.gov/Health-Topics/DASH-Eating-Plan)



Did you know?

All types of salt have sodium, including:

- Table salt
- Kosher salt
- Sea salt
- Himalayan salt





**Now let's see what you can do!
Reducing sodium might not be as complicated as
you think. Try this next activity.**

Reduce Sodium and Pump up the Flavor!

Take a look at the traditional chicken salad recipe. Using the tools you've learned from Chef Kelly and Chef Lindsey, what changes could you make to reduce sodium without compromising the flavor?

Traditional Chicken Salad Flatbread Sandwich

Category	Optional	10 each			40 each			Cooking Process	#1 No Cook	Directions
		Weight	Measures	Weight	Measures	Weight	Measures			
Flatbread, whole grain rich			10 each			40 each				
Chicken, fully cooked, diced		1.25 lb				5 lb			CCP: No bare-hand contact with ready-to-eat food.	
Greek yogurt, plain, low-fat			3/4 cup			3 cups			1. Thaw flatbread at room temperature. 2. Thaw chicken in refrigerator overnight.	
Mayonnaise			1/2 cup			2 cups			CCP: Hold at 41° F or below.	
Salt			1/2 tsp			1 tsp			3. Combine Greek yogurt, mayonnaise, curry powder, lemon juice, salt, and black pepper in a large bowl. Mix thoroughly.	
Black Pepper			1/8 tsp			1/2 tsp			Add apples, cilantro, onion, and chicken. Mix gently until all ingredients are coated with the yogurt mixture.	
Lettuce, romaine, shredded		3.5 oz	2 1/2 cups			2 qt + 2 cups			4. To assemble flatbread sandwich, use a #12 disher of chicken salad mixture onto one half of each flatbread. Spread chicken salad to cover the half. Top with 1/4 cup shredded romaine lettuce, then fold in half. Serve immediately. Avoid holding for long periods of time to prevent sandwich from becoming soggy.	
CCP: Hold and serve at 41° F or below.										

What changes did you make to the recipe? See our K-12 chef's suggestions below!

1. Add herbs and spices. The chefs added curry powder and cilantro.
2. Add acid to brighten the recipe. The chefs chose lemon juice.
3. Reduce the salt when you can. The salt was reduced by half.
4. Add fruits and vegetables to increase flavor and nutrition. The chefs chose apples and onions.

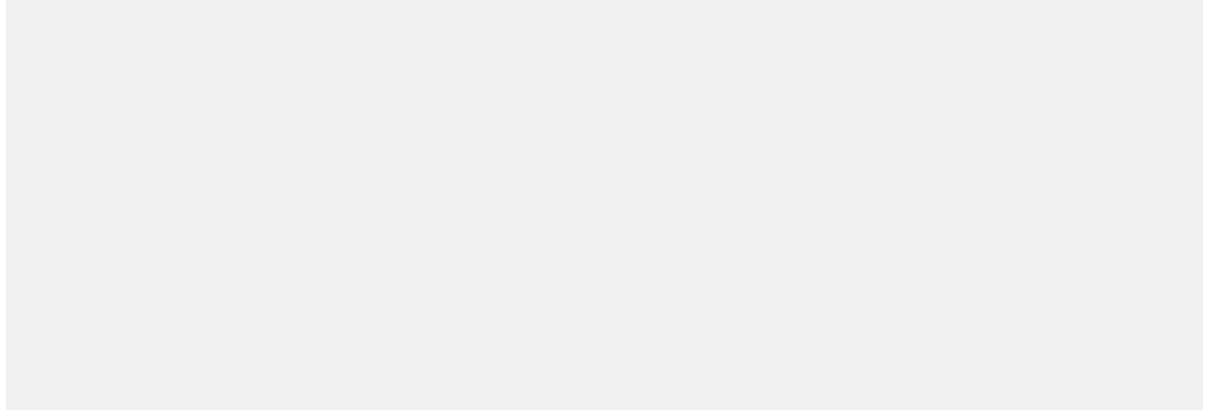
Curry Chicken Salad Flatbread Sandwich

Category	Optional	10 each		40 each		Cooking Process	#1 No Cook	Directions
Yield	Ingredients	Weight	Measures	Weight	Measures			
Flatbread, whole grain rich			10 each		40 each			CCP: No bare-hand contact with ready-to-eat food.
Chicken, fully cooked, diced	1.25 lb			5 lb				1. Thaw flatbread at room temperature.
Greek yogurt, plain, low-fat			3/4 cup		3 cups			2. Thaw chicken in refrigerator overnight.
Mayonnaise			1/2 cup		2 cups			CCP: Hold at 41° F or below.
Curry powder			1 Tbsp + 1 tsp		1/4 cup + 1 Tbsp			CCP: No bare-hand contact with ready-to-eat food.
Lemon juice			1 Tbsp		1/4 cup			3. Combine Greek yogurt, mayonnaise, curry powder, lemon juice, salt, and black pepper in a large bowl.
Salt			1/4 tsp		1/2 tsp			Mix thoroughly.
Black Pepper			1/8 tsp		1/2 tsp			Add apples, cilantro, onion, and chicken.
Apple, green, diced 1/2"		2 oz	1/2 cup	8 oz	2 cups			Mix gently until all ingredients are coated with the yogurt mixture.
Cilantro, fresh, chopped		.3 oz	1/4 cup	.8 oz	1 cup			CCP: Hold at 41° F or below.
Onion, red, raw, diced 1/4"		1.6 oz	1/4 cup	6.1 oz	1 cup			CCP: No bare-hand contact with ready-to-eat food.
Lettuce, romaine, shredded		3.5 oz	2 1/2 cups	13.9 oz	2 qt + 2 cups			4. To assemble flatbread sandwich, use a #12 disher of chicken salad mixture onto one half of each flatbread. Spread chicken salad to cover the half. Top with 1/4 cup shredded romaine lettuce, then fold in half. Serve immediately. Avoid holding for long periods of time to prevent sandwich from becoming soggy.
								CCP: Hold and serve at 41° F or below.

LIMITING ADDED SUGARS

You now have ideas about limiting sodium, but what about sugar?

As you listen to the video presentation or read the transcript, write down the main points of limiting added sugars. Pay special attention to the process of calculating teaspoons of sugar from grams. You'll need to know this for the next activity.



Activity: How much sugar is in your cereal?

Look up the added sugar amount for one cereal. You can grab a container from storage or google nutrition facts online. Then calculate the number of teaspoons and actually measure it out as a visual! You might be blown away by how much sugar you see!

Remember: 4 grams of sugar = 1 teaspoon.

Items you'll need:

- 1 cereal nutrition facts label
- Piece of paper
- Pencil
- Calculator
- Teaspoon measure
- Small bowl
- Granulated sugar

Cereal: _____

Grams of sugar: _____

Grams of sugar (from above): _____ /4 = _____ teaspoons of sugar

Need a handy reference for your staff? "Cut Down on Added Sugars" is an easy-to-understand handout from the Office of Disease Prevention and Health Promotion.

Cut Down on Added Sugars

It's important to avoid or limit foods and drinks that are higher in added sugars. If you have a lot of added sugars in your diet, it's hard to get all the nutrients you need without also getting too many calories — and that may make it hard to stay at a healthy weight.

Learn how to cut down on added sugars.



What are added sugars?

Added sugars include sugars that are added to foods and drinks — and foods packaged as sweeteners, such as table sugar, syrups, and honey. Added sugars are in foods and beverages such as:



Drinks like regular soda, sweetened coffee and tea drinks, fruit drinks that aren't 100% juice, energy drinks, and flavored milk



Sweet treats like cookies, cake, ice cream, donuts, and candy



Granola bars, flavored yogurt, and many breakfast cereals

Some foods and drinks have sugar naturally — like fruits, 100% fruit juice, plain milk, and plain yogurt. The sugars in these foods are **not** added sugars.



What about fruit juice?

Most of the time, **choose whole fruits** instead of juice. If you do drink juice:

- Choose 100% fruit juice — which doesn't have added sugars
- Have a small serving

What's the limit for added sugars?

Try to limit added sugars as much as possible — a simple rule is to aim for **less (or much less!) than 50 grams a day**. And people who get less than 2,000 calories a day, such as younger children and some teens and women, need to limit added sugars to much less than 50 grams a day.

Children under age 2 need to make every bite count to meet their nutrient needs within calorie limits. That's why it's important not to give them any foods or beverages with added sugars.



Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving
Calories **230**

% Daily Value*

Total Fat 8g **10%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

Includes 10g Added Sugars **20%**

Protein 3g

Vitamin D 2mcg 10%

Calcium 260mg 20%

Iron 8mg 45%

Potassium 235mg 6%

* 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.

Check the label

Check the Nutrition Facts label to see if foods are **low** or **high** in added sugars. Look at the % Daily Value (DV):

- **5% DV or less** is a **low** source of added sugars
- **20% DV or more** is a **high** source of added sugars

More often, choose foods that are lower in added sugars.



Why less than 50 grams?

It's important to get **less than 10% of your daily calories** from added sugars. If you get more than that, it's hard to get all the nutrients you need without getting too many calories. For a 2,000-calorie diet, 10% is 200 calories — and that's about 50 grams of added sugars.

So 50 grams is a simple limit to remember. But try to get even less. And remember not to give children under age 2 any added sugars at all.

Added sugars add up fast! See how many grams of added sugars and calories are in 1 serving (12 ounces) of these drinks:

Drink (12-ounce serving)	Added sugars (grams)	Total calories	% DV of added sugars
Sweetened tea	29	115	58%
Regular soda	37	156	74%
Lemonade	43	171	86%
Fruit drink (like fruit punch)	59	238	118%

How can I cut down on added sugars?

Small changes make a big difference! Try these healthy swaps:

- Instead of regular soda, drink water, sparkling water, or unsweetened tea
- Instead of sugary cereal, try plain oatmeal or yogurt with fruit
- Replace the candy dish with a fruit bowl

Take small steps to cut back:

- Make your own coffee or order plain coffee — add 1 teaspoon of sugar or less, use a no-calorie sweetener, or don't use any sweetener at all
- Enjoy a smaller serving of dessert — or share dessert with a friend

Remember, small changes make a big difference! So **start simple** — begin cutting down on added sugars today.

- Learn about the Dietary Guidelines for Americans and get more resources to help you eat healthy at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov)
- Find more healthy eating tips and recipes at [MyPlate.gov](https://www.myplate.gov)



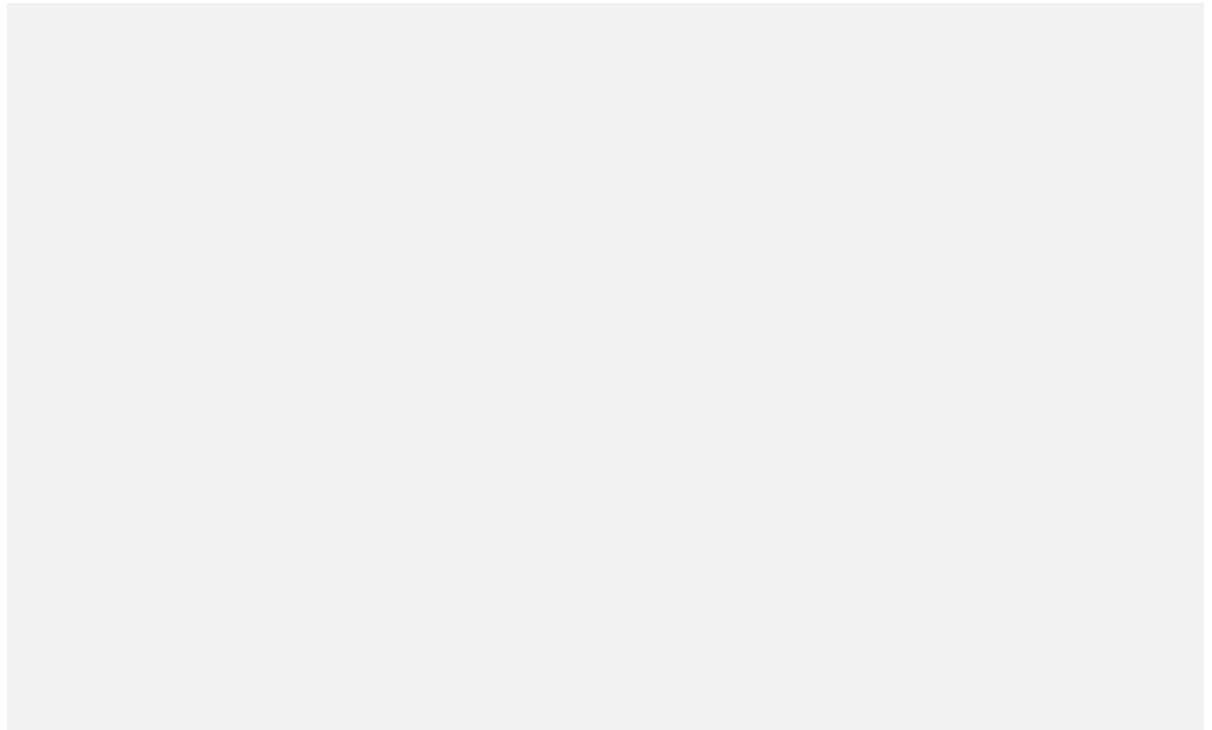
What about low- and no-calorie sweeteners?

Low- and no-calorie sweeteners — like in “diet” sodas and sugar-free syrups — can help cut down on added sugars and calories. But they may not be a good way to manage your weight in the long term. If you have questions about how to manage your weight, talk with your doctor or a registered dietitian.



COOKING WITH PLANT-BASED PROTEINS

There's a whole other world besides animal-based proteins! First, listen to the video presentation or read the transcript to learn more about plant-based proteins. Then, jot down some things you learned about plant-based proteins and what questions you have for the chefs.



You may already have plant-based protein items on your menu. Complete the following activity, and let's see.

Activity: What's on your menu?!

1. Take a look at your menu and look for plant-based protein menu items. Then, highlight all the plant-based options.
2. What plant-based menu items can you add to your menu?
 - a. Are there any culturally inclusive recipes you can add to your menu?
 - b. Are there any local product ideas you can add to your menu?



**Don't go yet! See what you've learned!
Take the post-quiz for this module and record
your participation.**