

revitup

Lesson 8

Wash Up and Cook Safe!



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**



RUTGERS®

Lesson 8: Wash Up and Cook Safe!

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Core Curriculum Area: Food Safety

Objectives

Teens taking this class will:

1. Identify ways germs can spread while performing daily routine tasks.
2. Show the correct hand-washing technique.
3. Recognize unsafe food handling practices and state how to correct them.

Behavioral Focus

This lesson prompts teens to:

1. Wash their hands in the correct way.
2. Handle food safely to prevent the spread of foodborne illness.

Background

Why do we teach about food safety?

The U.S. food supply is one of the safest in the world, but there are still many germs (bacteria, viruses, and parasites) that can grow on food and make us sick. These illnesses are called **foodborne illnesses** and they affect about 1 in 6 people in the U.S. each year.¹ Most people who get them get better after a few days. But sometimes foodborne illnesses can lead to severe illness and even death.

People with low incomes may be at a higher risk of getting foodborne illnesses.² They may know less about handling food safely, or they may not have the resources, like extra cutting boards, paper towels, disinfectants, or thermometers that make handling food in a safe way easier to do.² The stores and restaurants in their neighborhoods may face barriers, like the absence of proper refrigeration and storage, that may result in unsafe food storage.² People without much money may also resort to unsafe food practices to stretch their food dollars. Here are some unsafe food practices that Rutgers researchers have heard that low-income people do:³

- Eat spoiled food after they remove mold, slime, or insects
- Take leftovers home from events that had been left sitting out for long periods of time
- Eat other people's leftovers

- Store perishable food outside of the fridge if they do not have access to one
- Eat expired food
- Eat non-food items like paper and pet food
- Eat roadkill

It is not just low-income people who practice unsafe food practices. For instance, about 70% of U.S. adults wash or rinse raw poultry before cooking it.⁴ Although people think they are killing germs when they wash poultry, they are more likely to be splashing germs all over their kitchens! Even more shocking, one study found that only 5% of people washed their hands with soap, for the right amount of time after using the bathroom!⁵ Since unsafe food practices increase one's risk of foodborne illness, food safety education has become an important topic for nutrition educators to teach. The Expanded Food and Nutrition Education Program (EFNEP) requires its educators to teach food safety.⁶

What should teens know about food safety?

Food safety educators have come up with 4 core practices to prevent foodborne illnesses:⁷

1. **Clean:** Wash hands and surfaces often.
2. **Separate:** Don't cross-contaminate.
3. **Cook:** Cook to the safe internal temperature.
4. **Chill:** Refrigerate promptly.

To make food safety more relatable, we found practices that teens or their families may do that go against the core practices and teach them the right way to do things. Teens will be adults themselves in a few short years. So, it is important for them to handle food safely for themselves and their future households.

How does *Wash Up and Cook Safe!* help teach food safety to teens?

In the first part of this lesson teens learn to wash their hands in a correct way. We call handwashing the "Number 1 Action" teens can do to prevent the spread of germs. Because it is! Handwashing with soap is the best way to get rid of germs.⁸ But most people do not properly wash their hands. We use a germ powder kit to show teens how quickly germs can spread. Then, we go over the proper way to wash hands to correct any wrong ideas the teens may have.

In the second part of this lesson the teens watch the nutrition educator act like she/he is at a cookout. The educator does many unsafe things the teens may have seen people do before. Sometimes things get a little

silly to keep the teens' attention. It is the teens' job to figure out what the cook is doing wrong! At the same time, the educator corrects some common but wrong ideas about food safety. For example, some people think that the "5-second rule" is true, but the truth is that food becomes unsafe to eat as soon as it touches the ground.⁹ This activity allows for the teens to learn about the 4 core food safety practices in a practical and fun way.

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Materials Needed

Activity 1: The Number 1 Action

- ☐ Germ powder and UV light
- ☐ Hand sanitizer or hand wipes

We use the GlitterBug™ kit that you can get at [brevis.com](https://www.brevis.com). But you can use another kit if you would like.

Activity 2: Safety First!

- ☐ Wash Up and Cook Safe! Prompt Cards
- ☐ Fight BAC! Temperature List (fightbac.org/wp-content/uploads/2022/02/safe-minimum-internal-temperatures-chart-1.pdf)
- ☐ 2 bells/buzzers
- ☐ Bin to carry the following:
 - ☐ Food models
 - ☐ 2-3 pieces of raw steak
 - ☐ 2-3 pieces of raw chicken breast
 - ☐ 2-3 cooked hamburgers
 - ☐ 4-5 hot dogs
 - ☐ 1 bottle of hand sanitizer
 - ☐ 1 medium-sized foil pan
 - ☐ 1 canned heat pack (like Sterno®) and rack
 - ☐ 1 indoor grill
 - ☐ 2 plastic plates
 - ☐ 1 meat thermometer
 - ☐ 1 set of tongs
- ☐ Cooler to transport:
 - ☐ 3 foil loaf pans (label as: potato salad, corn on the cob, green beans using permanent marker)
 - ☐ 1 salad bowl, with salad food model inside or labeled “salad”
 - ☐ Food models
 - ☐ Broccoli
 - ☐ Cheese slices
 - ☐ Tomato slices
 - ☐ 3 bottles of dressing (use labels to mark 1 with an expiration date that is past the lesson's date, 1 with a best by date that is past the lesson's date, and 1 with a use by date that is past the lesson's date)
 - ☐ 1 fruit bowl, with a cut-up fruit model inside or labeled “fruit”
 - ☐ 2 serving plates
 - ☐ 1 serving spoon
 - ☐ Aluminum foil
- ☐ Get Ready to Grill Safely poster ([cdc.gov/foodsafety/pdfs/grill-safety-infographic-508c.pdf](https://www.cdc.gov/foodsafety/pdfs/grill-safety-infographic-508c.pdf))

Prepare to Teach

1. Download and print the Wash Up and Cook Safe! Prompt Cards and the Fight BAC! Temperature List. You may wish to laminate these, so you can use them again.
2. Download and print the Get Ready to Grill Safely poster so you can hang it up in the classroom. You may need to go to a print shop.
3. Play around with the germ powder and test the UV light to make sure you can see the powder glow in the light.

Practice until the activity lengths are:

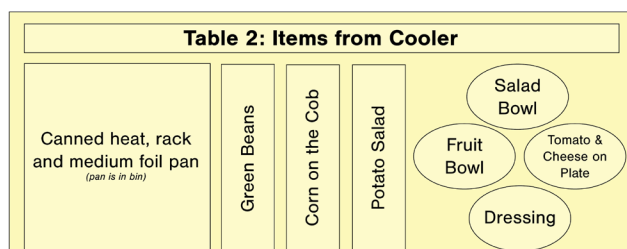
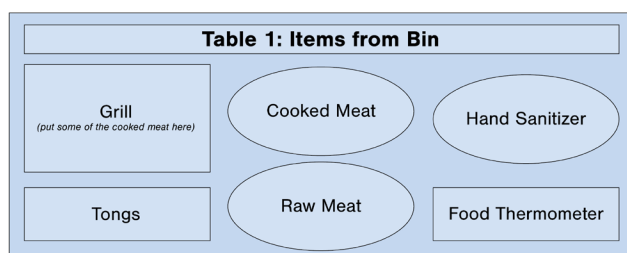
- **Introduction:** 2 minutes
- **The Number 1 Action:** 10 minutes
- **Safety First!** 20 minutes
- **Wrap up:** 3 minutes

This will allow for the lesson to be taught in 35 minutes.

Lesson Plan

Set-up

1. Remind the teacher:
 - You will be using the germ powder to show the teens how germs spread. Ask if there are a few classroom items he/she wouldn't mind having germ powder on.
 - You also will need him/her to keep score for the game today.
2. Set up 2 tables for Activity 2, as shown on the next page. Have the tables side by side so you can easily stand behind each table.
3. Take the items that the teacher has allowed for you to use with the germ powder and place them where you can reach them. Place the UV light next to these items.
4. Set the Wash Up and Cook Safe! Prompt Cards and the Fight BAC! Temperature List where you can access them when you teach.
5. Hang up the Get Ready to Grill Safely poster.
6. Put some of the germ powder on your hands. Use the UV light to make sure you can see the powder glow in the light.



Introduction (2 minutes)

1. Greet the teens as they walk in.
2. Ask if anyone has "PlateTuned" their plates since the last lesson. Take a few answers.

Activity 1: The Number 1 Action (10 minutes)

1. Start by telling the teens that today you will be switching gears and talking about food safety. Ask, "Does anyone know the Number 1 Action you can take to stop the spread of germs?"
 - See if anyone knows: washing your hands!
2. Explain that germs are tiny organisms, like bacteria and viruses, that are too small for people to see without a microscope. Not all germs are bad, but there are quite a few that can make us sick, including some that live on food.
3. Tell them that germs can be spread by touching dirty surfaces or touching unclean hands to dirty surfaces. Mention some of the items the teacher gave you to touch and touch them as you talk about them with the palms of your hands (which are covered in the germ powder).

"For example, you could get germs from this pencil that someone else may have touched."

4. After you have touched the items, tell the teens that you forgot to wash your hands before class today! Say you happened to bring a special light that can show where the germs live in this very classroom. Grab the UV light and have the site leader turn off the lights and shut the blinds.

Sometimes, nutrition educators use the germ powder to shake people's hands and spread the "germs." Sadly, we do not often have enough time to do this in *Rev It Up!* and to let the teens wash their hands afterward.

5. Turn on the UV light and shine it over the objects you touched with your hands. They should glow with the germ powder!
6. Have the site leader turn the lights back on. Tell the teens that they aren't real germs, it is in fact a special powder you had put on your hands. But the powder easily spread from your hands to the items you touched.
 - Germs spread just as easily from objects to our own hands. That's why it is so important to wash them!
7. Tell the teens there is a proper way to wash their hands to make sure they are germ-free. Say, "maybe you can help me out with the steps."
 - Have them pretend that you are in front of a sink and about to wash your hands. Ask, what step comes first?
 - Have the teens provide answers and guide them until all the steps have been complete. Review below:
 1. Get the towels ready. If you have a paper towel holder, then you must crank it before you start washing!
 2. Turn on the faucet and wet your hands. Warm water is the best, but cold water is okay.
 3. Lather your hands with soap and scrub. Lather up without water first. Make sure you get under the nail beds, between fingers, and up the wrist. Scrub for at least 20 seconds, or the time it takes to sing "Happy Birthday" twice.
 4. Rinse your hands with water so all the soap comes off.
 5. Grab the towel and dry your hands.
 6. If you are in a public restroom, use the paper towel you dried your hands with to open the restroom door, so your clean hands don't pick up the germs on the doorknob.
8. Once you have gone over all the handwashing steps, ask for 1 of the teens to recap the steps for the class.
 - As the teen repeats the steps, use the hand sanitizer or the wipes to clean your hands and

the objects you touched clean of the germ powder.

- Prompt the teen if he/she forgets a step.
- Give the teen a round of applause for volunteering.

Activity 2: Safety First! (20 minutes)

1. Tell the class that now you will be playing a game to see how much they all know about food safety.
 - Split the class into 2 teams. Choose a teen on each team to be the captain and give him/her a bell/buzzer.
2. Say that you are planning a big cookout and inviting all your friends and family. You are cooking all sorts of yummy food, but you want to make sure you cook it all safely, so no one gets sick.
 - You need the teams to help catch any mistakes you make while preparing food.
 - Tell them that each time a team catches a mistake, the captain should ring the bell/buzzer. If the team is correct, the team wins 1 point. If not, the team loses 1 point.
 - There will be 11 sets of mistakes in total. The team with the most points at the end of the game wins!

"Nobody wants to spend time at a cookout with his or her head in the toilet bowl!"

3. Now, perform these actions below. If neither team catches a mistake, stop, and give a cue so they guess you just did something wrong.
 - If no one can figure it out, let them all know what the mistake was and do not award any points.
 - Use the Wash Up and Cook Safe! Prompt Cards at each table to help remind you of the mistakes.

Be silly as you act out these steps! It will keep the teens engaged and help them learn.

4. First, tell the teens that you will start by washing your hands before preparing food. Pretend you are at a sink again but wash up really fast and dry your hands on your pants.

MISTAKE 1: You did not wash your hands the right way!

- Remember, you should wash your hands for at least 20 seconds.
 - You must wash under your nails, between your fingers, and up your wrists.
 - You should always dry your hands on a clean towel, not your pants!
5. After the teens catch this mistake, use the hand sanitizer at Table 1 to properly clean your hands.
 - Tell the teens that they can use hand sanitizer when they don't have access to soap and water.
 - When they do, they should scrub all the same parts of their hands until the hand sanitizer is completely dried.
5. Pick up the plate with the fake cooked meat and say that you already cooked the meats on this plate. Now, you want to grab the other cooked meats on the grill.
 - Pick them up with the tongs and transfer them to the plate. Let one of the meats drop to the ground. Say, "Oops, 5-second rule!" and pick the meat back up and put it on the plate.

MISTAKE 2: The 5-second rule is fake!

- Germs start rushing onto food the moment it hits the ground. It is not safe to eat after you drop it!
 - If you really must, you could put the meat back on the grill until it is the proper temperature again. This will kill most of the germs it came in contact with.
6. Next, say you want to cook the raw chicken and steak. Place them on the grill with the tongs. Then, wait a few seconds and poke them with the tongs. Say you're checking the color to see if they are done yet.

MISTAKE 3: You cannot use the color of meat to know if it is done!

- Sometimes meat turns brown on the inside before it is a safe temperature. Sometimes, meat that is fully cooked looks pink and juicy on the inside.
- The only sure way to know if the meat is done is by using a meat thermometer to check the temperature.
- Demonstrate how to use the meat thermometer on one of the chicken models. The thermometer goes in the thickest part of the meat. It should be in the center without touching any bone.
- Read the safe temperatures for each type of meat from the Fight BAC! Temperature List.

7. Tell the teens to pretend that the meat on the grill is done. Use the tongs to pick the meat back up and put it back on the raw plate.

MISTAKE 4: Don't use the same tongs for raw and cooked meats! If you do it passes the uncooked meats' germs onto the cooked meats.

- You should use a separate pair of tongs for handling raw and cooked foods.
- If you only have 1 pair of tongs, you can put the ends into the flames of the grill for 5 seconds. That will kill off all the germs.

MISTAKE 5: Don't put cooked and raw meats on the same dish!

- The germs from the raw meat will travel to the cooked meat and make it unsafe.
- If you must reuse the dish, wash it first with warm, soapy water.

8. Tell the teens that they're doing great! Move over to Table 2. Say that you put this spread together 3 hours ago, so all your guests could get in their MVPA before they sat down to eat.

MISTAKE 6: The potato salad should be kept cold!

- Cold foods should be kept at 40°F or colder.
- Cold foods should never be kept out for longer than 2 hours. If it is 90°F or warmer outside, only keep them out for 1 hour max.

MISTAKE 7: The green beans and corn on the cob should be kept hot!

- Hot foods should be kept at 140°F or warmer.
- Hot foods should never be kept out for longer than 2 hours.
- Move these pans to the medium pan with the canned heat to show the teens how to keep these foods warm.

MISTAKE 8: The fruit and the salad should be kept cold!

- Keep cut up produce on ice or in the fridge at 40°F or colder.
- Cold foods should never be kept out for longer than 2 hours. If it is 90°F or warmer outside, only keep them out for 1 hour max.

MISTAKE 9: The tomato and cheese slices should be kept cold!

- Keep them in the fridge or a cooler at 40°F or colder.
- Cold foods should never be kept out for longer than 2 hours. If it is 90°F or warmer outside, only keep them out for 1 hour max.

9. After Mistakes 6-9 have been caught, say, "Oops! I brought some broccoli to put into the salad! I forgot all about it!"
- Take the broccoli food model from the cooler and put it right into the salad bowl.

MISTAKE 10: You should wash produce before you eat it!

- The outermost layer of fruits and veggies can have dirt and germs that can make you sick.
- Even if you do not eat the peel, like with bananas or avocados, you should still wash it. If you don't, you may spread the germs from the peel to the flesh of the fruit.
- You can wash with just water or with a produce spray, but you do not need soap.
- Use a clean vegetable brush to scrub firm produce, like melons and cucumbers.
- Dry produce with a clean towel to further reduce germs that may be present.
- Throw away the outer leaves of lettuce or cabbage heads.
- You do not need to wash foods that you will be cooking to a safe internal temperature, like meats. In fact, if you wash meat before cooking it, chances are you are splashing germs all over your kitchen sink and counters!

10. Point out the salad dressing bottles. Say you found them all the way in the back of your fridge. Mention that 1 expired on [date], 1 has a best by date of [date], and 1 has a use by date of [date]. Ask them which ones they think you should use.
- Remember, these should all be before today's date!

MISTAKE 11: Don't use foods past their expiration date!

- Expiration dates tell us when the food is no longer safe to eat.
- "Best by" and "use by" dates only tell us when a food is no longer at its freshest. If stored properly, they can still be safe to eat.

11. Have the site leader announce the winning team and give them a round of applause.

12. Finally, point out the Get Ready to Grill Safely poster to the teens. Tell them the 4 steps to proper food handling are **clean, separate, cook, and chill**.

- If you have time, ask the teens which category the mistakes you made fell under. For example, one part of "clean" is washing your hands the right way!

Wrap up (3 minutes)

1. Ask the teens what they learned today and go over the steps to washing hands again if you have time.
2. Let them know that for next time, you will be talking about snacks again, and they will get to be secret agents!

After the lesson is over, remind the teacher what her/his role will be for the next lesson. You may want to send an email like this:

I hope you have seen more squeaky-clean hands in your classroom! Handwashing and food safety are so important! I am glad I was able to demonstrate for the teens. The next time I come, I will need your help running the slides. I have attached them to this email in case you want to play with them ahead of time. We will also be dancing for our MVP! I may need your help motivating them to dance with me. (Remember to attach the Lesson 9 slides!)



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