

Wipe – Out!

Target Audience:

Adults

Topic Areas:

Keeping Bacteria Out of My Kitchen

E Coli, Salmonella, & Their Friends – Tell Me More!

Objectives:

- Air dry dishes when possible
- Air dry dishes after hand washing them
- Sanitize dish towels, dish cloths and sponges as often as possible but at least weekly
- Wash cutting boards with bleach solution after touching raw meats, chicken and fish

Wipe – Out!

Lesson Creator(s):

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Purpose:

The purpose of this lesson is to help participants reduce their risk of food-borne illness by disinfecting kitchen surfaces and preventing the transmission of germs through towels.

What the Nutrition Educator Needs to Know So That Participants' Questions Can Be Answered:

Germs are found in food, on your hands, and on tabletops. They are in the air you breathe and water you drink. Each day you are exposed to millions of germs! In the right conditions, they grow very quickly. Germs grow and live best in the same conditions people grow and live best. In food, they grow the fastest in temperatures between 40° F and 140° F. They also grow well in matter like water, something that is not too acidic or basic. Water is also a good setting for germs to grow because it keeps them moist. Germs need moisture to live. Like people, most germs need oxygen to grow. However, some of them live best without oxygen (these grow well in sealed cans and deep inside cracks on cutting boards and dishware).

What can you do to get rid of germs that come in contact with your food? One answer is to sanitize the area with a bleach solution. A bleach sanitizing solution can be made from:

- 1 teaspoon of bleach with 4 cups or 1 quart of water; or
- ½ teaspoon of bleach + 2 cups water; or
- ¼ teaspoon bleach + 1 cup water.¹

This solution can be **used for 24 hours** and then must be thrown out and mixed again.

Sanitizing solution is different from disinfecting solution. Disinfecting solution is stronger and can be used only on surfaces that do not touch food.

To kill germs on a surface that you cannot disinfect because food will touch it, you can make a germ killing cleaner by mixing some mild soap with bleach sanitizing solution. When mixing bleach or bleach solutions with any kind of soap, make sure the soap does not contain ammonia or acid. When mixed, they make harmful and sometimes very dangerous fumes.² Both bleach and ammonia work well alone but they should not be mixed together. Ammonia can be made into a cleaning solution also but without bleach added. Do this by mixing ½ cup sudsy ammonia with enough water to create 1 gallon of cleaner. (Sudsy ammonia contains detergent, which attacks dirt, grime, and grease on surfaces. It can streak glass mirrors, so use clear ammonia on glass instead.) Pour the solution into a spray bottle, squirt on, and just wipe off any mess.³

When cleaning cutting boards and surfaces, the idea is to kill most of the germs present. It is important to remember to let the bleach solution stay on the surface for 2 minutes. High numbers of germs are what make people sick. Bleach solution kills most of the germs on surfaces, sponges, and inside the cracks of cutting boards. Germs are dangerous in large numbers. Bleach solution will not kill every single germ, but with two minutes of contact it kills enough to make kitchen tools, cutting boards and countertops safe.

Should you use wood or plastic cutting boards? The USDA Meat and Poultry Hotline at 1-888-674-6854 or mph hotline.fsis@USDA.gov, suggests using plastic or glass cutting boards over wood ones when cutting raw meat, poultry, and fish. This is because glass and plastic boards are easier to clean than wood ones. The hotline also states that if you use wood cutting boards, have two – one for raw meats, and another one for foods that are raw, like fruits and vegetables.

Un-sanitized cutting boards and counters can be harmful because germs on them can spread to foods. Raw meat or egg on a surface can infect ready to eat food with harmful germs. It is important to wash and sanitize surfaces and cutting boards and wash your hands after touching uncooked animal products and before handling raw vegetables. If possible, use two cutting boards – one for raw meats, poultry, and fish and one for foods to be eaten raw, like fruits and vegetables.

Bleach solution is not just used for sanitizing countertops and cutting boards. It works well to kill organisms on dish rags, dishes, and platters. Use the recipe mentioned before to make your sanitizing solution. To disinfect drains and garbage disposals in the sink, pour 1 cup of the sanitizing solution down the drain and it will

kill any germs living in the pipes. The solution can also be used to spray the insides of home garbage cans. Germs cause that funny smell in the garbage can. You can use sanitizing and disinfecting bleach solutions in places other than the kitchen, like the bathroom. To clean toilets, ½ cup bleach should be left to sit in the toilet for 10 minutes. No water should be added to the bleach. To clean mops, brushes, and rags that do not touch food surfaces, ¾ cup bleach should be added for each gallon of water that is used.

Although a bleach solution is a great way to kill germs, it is not safe to have bleach lying around the house. If pets and children swallow or get bleach/bleach solution in their eyes, they could become very sick or blinded. Bleach solutions should have clear labels and be stored out of reach of children and pets. This is very important when the solution is put into an old container that is labeled as something else. **Never** store the solution in an empty food or beverage container.

Hand towels and dishtowels also spread germs. Damp towels are a great place for germs to grow when they do not get a chance to dry out. Use hot water to rinse dishes and then let dishes air dry. The steam from the hot plates quickly dries the dishes. If you must dry dishes by hand, use a clean dishtowel each time or paper towels. Always use a separate towel for hands and for dishes. If you have a dishwasher, use it. Dishwashers use steam that is hot enough to kill the germs on dishes and kitchen supplies.

Sponges and dishtowels should be sanitized or replaced on a regular basis, at least once a week, but more often if they become dirty or smell bad or touch surfaces that might not be clean.

Sponges can be sanitized in a bleach sanitizing solution, but this may not kill all germs. The best way to sanitize a sponge is to:

- Heating a damp sponge in a microwave at full power for 1 minute
- Washing in a dishwasher through the drying cycle. ⁴

If you don't have a dishwasher or microwave, you should remember to wring out your sponge and let it dry completely between each use and replace it as often as you can. They can also boil in water or soak in bleach which will kill some of the germs.

Dishtowels should be washed with your laundry in order to sanitize them.

Footnotes:

¹ USDA Food Safety and Inspection Service website Fact Sheet: “Cleanliness Helps Prevent Foodborne Illness.” June 2006. Accessed: June 22, 2009
http://www.fsis.usda.gov/Fact_Sheets/Cleanliness_Helps_Prevent_Foodborne_Illness/index.asp

² “Hazards of Cleaning Chemicals.” Guidance Note, University of Colorado at Denver and Health Sciences Center Environmental Health and Safety Department: May 2007. Available at: <http://www.uchsc.edu/safety/Downloads/HWG-009-R1-Oct2007.pdf>. Accessed June 22, 2009.

³ “Easy Recipes for a Cleaner House.” Good Housekeeping Magazine. Available at: http://www.goodhousekeeping.com/home/heloise/cleaning/easy-cleaner-house-nov06?click=main_sr. Accessed June 22, 2009.

⁴ “Best Ways to Clean Your Kitchen Sponge.” News and Events, USDA Agricultural Research Service, April 2007. Available at: <http://www.ars.usda.gov/is/pr/2007/070423.htm>. Accessed June 22, 2009.

For Additional Reading:

USDA Food and Safety Inspection service-Food Safety Website available at:
http://www.fsis.usda.gov/Food_Safety_Education/index.asp

Wipe – Out!

Main Themes:

Nutrition & Diet

Cooking & Food Storage

Shopping

Budgeting

Safety & Sanitation

Materials Needed:

Old cutting board

Clue® Spray – Brevis Corporation 1-800- 383-3377

*Lightly spray the cutting board with Clue® Spray and let it soak in before class. Be careful not to touch the board with too many things before class.

UV light – Hand held battery light is ideal - Brevis Corporation 1-800- 383-3377

Dish Detergent

Sponge –1 new or very clean – can be O-Cello® bacterial resistant sponge

Dish cloth and sponge – dirty or used

Drying towel

Plastic squirt bottles - 1 quart size – 1 per participant

1 quart household bleach

Self-stick large mailing labels

Pens or Fine markers

Handout – “‘Good Living’ for Germs” – 1 Copy per participant

Chalk board and chalk or masking tape/easel, poster board and markers

Time the Activity is Expected to Take:

Activity 1: 10 minutes

Activity 2: 15 minutes

Activity 3: 10 minutes

Activity 4: 10-15 minutes

Next Week’s Goals: 5 minutes

Wipe – Out!

Lesson Plan:

Activity 1: “Board of Cleaning? – Enlightening News” (10 minutes)

1. Prepare the cutting board before class (see Materials Needed section).
2. By a show of hands, ask the class how many people know how to clean a cutting board. Choose a person to wash the cutting board in front of the class. Let them use the clean sponge and the dish detergent. *If the classroom is not equipped with a sink, have the volunteer role play washing a cutting board. Have them use the clean sponge and soap as if they were really washing the board. Have them explain to the class step-by-step what they are doing.
3. After the volunteer washes the board, congratulate him/her for a job well done. Ask the class if there was anything that they noticed that she/he forgot or that they would have done differently. Invite comments and suggestions. Make sure any comments made are encouraging and positive towards the volunteer.
4. *If no sink is available, inform participants that you have washed the cutting board just as the volunteer in step 2 described it.
5. Tell the participants:
 - Germs can live between cracks even after a cutting board has been washed.
 - These germs can make you sick, especially when you contaminate raw foods, like fruits and vegetables, with raw meats.
 - The board was sprayed with an invisible dye that picks up areas on the cutting board which soap and water did not clean well. These areas are places where germs grow well.
6. Pass around the UV light and the board so that they can see the florescent dye between the cracks.
7. Ask the participants:
 - Did anything surprise them about the activity?
 - Do they know of any ways to kill the germs that washing with soap and water leaves behind.

Activity 2: “A Day in the Life of a Dish Towel” (10 minutes)

1. By a show of hands, ask participants how many of them use a dish towel to dry their dishes. Next ask if they use their dish towels for *anything* other than drying dishes. Have them carefully think about where they use a dish towel and the many jobs it does throughout the day. Make a list of any other uses for dish towels on the blackboard or poster board.
2. After a few minutes of brainstorming, ask participants if any of these uses might result in germs contaminating other surfaces. Have them suggest ways to prevent these germs from spreading.
3. Ask participants
 - If they ever thought a ‘clean’ dish towels could spread germs from one surface to another.
 - Ask them how often do they change or wash or replace dish towels?
 - Ask them why they think dish towels are good transmitters of germs?

Answer: Damp dish towels may not dry quick enough to prevent germs from growing. They also come in contact with surfaces that are not sanitized and then touch clean dishes.

Activity 3: “Stop planting and passing germs in your home” (15 minutes)

1. Ask the class to tell you the best conditions under which germs grow. List them on a blackboard or poster board in front of the class. See handout for help if participants are having trouble. Use the handout as your guide until the end of the activity. Participants can have a copy at the end of the activity.
2. Have participants list places in their kitchens and in their homes where they believe germs might grow. Make two columns on the blackboard or poster board. Write these places in the first column on the board. Give hints to help them if needed.

Places should include: sponges, dish cloths, around toilets, around baby’s dirty diapers, in and around garbage pails, and in the refrigerator.

3. Form a second column next to the list of places for good germ growth.
 - Ask the class to suggest some ways they would stop or lessen the amount of germs growing and spreading in the places they listed. List their ideas in the second column. Supply some hints if they need help to generate these ideas.

Make sure they mention washing sponges in a dishwasher, microwaving damp sponges for 1 minute at full power or boiling them regularly. Make sure they mention wringing out rags well so that they dry, changing rags often, and laundering them. Make sure they mention washing hands, cleaning and sanitizing all surfaces that come in contact with food and cleaning all cooking implements thoroughly.

Activity 4: “Don’t Let Germs Sponge off you” (15 minutes)

ALERT: While bleach is not a common trigger, it can cause a reaction in some people with asthma. Some people are also very sensitive to its fumes. Before you begin this activity let the class know that you will be using bleach and ask if this will bother anyone. If anyone says yes, tell them they may wait right outside the class door and come back in once you are done.

1. Ask participants what they think the most unsanitary item in their house is. Tell them the answer is in sponges or dish cloths.③ Sponges and dishcloths are often used to clean up counter tops that come into contact with uncooked meat. Then they are reused to clean up other areas of the kitchen with very little washing in between. But tell them that they can sanitize their sponges in a dishwasher or microwave. However if they don’t have a microwave or a dishwasher, they can sanitize their sponges and rags in a homemade solution of bleach and water to make them safer.
2. Pass out one quart-sized (or 4 cup) spray bottle to each person. Have each person fill his or her bottle to the top line with water. If there is not water in the room, have them get it from the rest room. Carefully add 1 teaspoon of liquid chlorine bleach to the water. Use this solution to saturate the dirty sponge and/or dish cloth. Let the dish cloths or sponge sit in this solution for at least two minutes to kill most of the germs.
3. Explain to the participants that the sanitizing solution that they just made can be used to clean all areas that touch food. It is important to let the sanitizing solution sit for 2 minutes on the cloth or surface being cleaned. Explain that a stronger solution should be used to clean surfaces that do not touch food. Tell them that *you will give them the recipes for both to take home.
4. Pass out a blank label to each participant. Have participants write down the ingredients and their proportions on the front of the label. This way, if swallowed or sprayed in the eyes or on skin, participants can alert their local Poison Control

Center for advice. Put the Poison Control Center telephone number on the label. The number is 1-800-222-1222.

5. Have participants write down kitchen uses for their sanitizing solution on the label also. The class may want to brainstorm ideas for some uses other than the ones discussed in earlier activities.

Next Week's Goals: (5 minutes)

1. Ask the participants to name one thing that they learned in today's class. Make sure that each learning objective is mentioned, and if not, be sure to re-state that objective. Ask them to choose a related goal to work on during the week. Let them know that they will be sharing their personal experiences during the next class.
2. Invite comments, suggestions, or questions.
3. Thank the participants for coming and tell them what the class will be about in the next lesson.

For the Teacher: "What makes this lesson behaviorally focused?"

- Activity 2 is behaviorally focussed because it aids participants in thinking and talking about places in their own homes where germs grow and how they can reduce the risk of infection from these germs.
- In Activity 3, participants think about the dish towels in their own homes and how they can contaminate areas in the kitchen by using them throughout the day. Participants help each other recognize and correct potential danger areas where germs may spread.
- Participants physically make sanitizing solution in Activity 4. They make labels for their solution and write on them the places that they would use the solution. Participants also safely label the bottles to prevent illness from swallowing or squirting the solution.
- In Next Week's Goals, the participants are invited to name one thing that they learned during the class that they will use. Through this activity and by reviewing the objectives again, the participants are reminded of the many topics discussed

during the lesson. They will choose the behaviors that they will want to work on during the coming week.



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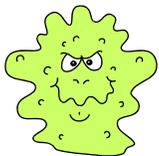


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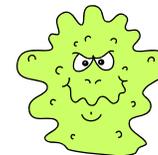


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GOOD LIVING FOR GERMS

Where Do The Germs Hide?

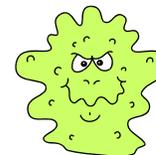
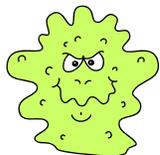


- ❑ Cutting boards
- ❑ Counter and table tops
- ❑ Sponges
- ❑ Dish cloths
- ❑ In garbage can bottoms
- ❑ On the hands
- ❑ *Kitchen floor*
- ❑ Near toilets
- ❑ Near baby's dirty diapers
- ❑ In the refrigerator

Germs like to live and grow where it is wet, warm and where there is air.

Stop Germs From Spreading...

1. Never mix BLEACH & AMMONIA!
2. Clean areas which come in contact with food such as kitchen, sink or fridge with:
 - A bleach solution made from 1 teaspoon bleach and 1 quart of water.
 - Let sit for 2 minutes.
 - Then rinse and wipe or air dry.
3. Clean areas that do not come in contact with food with:
 - A bleach solution made from 2 Tablespoons of bleach and 1 quart of water
 - Let sit for 2 minutes
 - Rinse and wipe or air dry.
4. Clean mops, brushes and rags that do not touch things and food with:
 - ¾ cup bleach and one gallon of water.
5. Wring out sponges and dish cloths well before hanging to dry.
6. Change dish towels and dish cloths often.
7. Sanitize or replace sponges often.
8. Wash hands often with soap and warm water.



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