

Norovirus in Schools

Everyone Plays a P.A.R.T.

PARTICIPANT'S WORKBOOK



Norovirus in Schools

Everyone Plays a P.A.R.T.

PARTICIPANT'S WORKBOOK

Project Coordinator

Liz Dixon, MS

EXECUTIVE DIRECTOR

Aleshia Hall-Campbell, PhD, MPH



Key Area: 2

USDA Professional Standard: 2600

Institute of Child Nutrition The University of Mississippi

Building the Future Through Child Nutrition

The Institute of Child Nutrition was authorized by Congress in 1989 and established in 1990 at The University of Mississippi in Oxford and is operated in collaboration with The University of Southern Mississippi in Hattiesburg. The Institute operates under a grant agreement with the United States Department of Agriculture, Food and Nutrition Service.

PURPOSE

The purpose of the Institute of Child Nutrition is to improve the operation of child nutrition programs through research, education and training, and information dissemination.

MISSION

The mission of the Institute of Child Nutrition is to provide information and services that promote the continuous improvement of child nutrition programs.

VISION

The vision of the Institute of Child Nutrition is to be the leader in providing education, research, and resources to promote excellence in child nutrition programs.

This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service through an agreement with the Institute of Child Nutrition at The University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

The University of Mississippi is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability.

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights; Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

© 2017, Institute of Child Nutrition, The University of Mississippi, School of Applied Sciences

Except as provided below, you may freely use the text and information contained in this document for non-profit or educational use with no cost to the participant for the training providing the following credit is included. These materials may not be incorporated into other websites or textbooks and may not be sold.

Suggested Reference Citation:

Institute of Child Nutrition. (2017). *Norovirus in schools*. University, MS: Author.

The photographs and images in this document may be owned by third parties and used by The University of Mississippi under a licensing agreement. The University cannot, therefore, grant permission to use these images.

For more information, please contact helpdesk@theicn.org

09/11/2017

Table of Contents

Professional Standards	1
Training Overview and Objectives	2
<i>Everyone Plays a P.A.R.T. in Norovirus Control</i> – Video Viewing Guide	3
Norovirus.....	5
Handwashing Challenge.....	7
<i>Wash Your Hands</i> – Video Viewing Guide	9
Effective Handwashing	11
What are Ready-to-Eat Foods?	13
No Bare Hand Contact with Ready-to-Eat Foods	15
Restricting or Excluding Ill School Nutrition Employees	17
Exclude or Restrict	19
Identify the Components of the Body Fluid Cleanup Kit	21
Assembling a Body Fluid Cleanup Kit	23
Assembling a Body Fluid Cleanup Kit (Sample SOP)	25
Using a Body Fluid Cleanup Kit	29
Cleaning and Disinfecting Body Fluid Spills (Sample SOP)	33
References	37

Professional Standards

FOOD SAFETY AND HACCP TRAINING - 2600

Employee will be able to effectively utilize all food safety program guidelines and health department regulations to ensure optimal food safety.

2630- Practice Federal, State, and local food safety regulations and guidance.

2640- Promote a culture of food safety behaviors in the school community (includes training on food allergens).

Training Overview and Objectives

The training *Norovirus in Schools* is intended to be a two-hour, face-to-face, hands-on norovirus training curriculum that includes audience interaction to improve retention of the learning objectives.

After completing this seminar participants should be able to:

- Describe why norovirus is a concern in school nutrition programs.
- List the symptoms of norovirus.
- Describe how norovirus is transmitted.
- **Prevent** – List personal hygiene habits that can prevent norovirus.
- **Prevent** – Name illnesses and symptoms of illnesses that must be reported to a manager, and identify the required manager response.
- **Assemble a Body Fluid Cleanup Kit** – Identify the components of a Body Fluid Cleanup Kit and their purpose.
- **Respond to an Incident** – Demonstrate correct use of Personal Protective Equipment, and describe proper body fluid cleanup procedures.
- **Total Cleanup** – Explain steps necessary to reopen a foodservice area after a vomiting event.

Everyone Plays a P.A.R.T. in Norovirus Control

Video Viewing Guide

Instructions: As you watch the video *Everyone Plays a P.A.R.T. in Norovirus Control*, look for mistakes made by Nina, Linda and Mia. Record the mistakes below.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Norovirus

What is norovirus?

Norovirus is a virus that causes illness sometimes referred to as the “stomach flu,” although it is not related to the flu (or influenza). Infection with norovirus affects the stomach and intestines, causing an illness called gastroenteritis. Norovirus was named for Norwalk, Ohio, in 1968 after an outbreak in a school. More than half of all foodborne illness outbreaks are caused by norovirus.

What are the symptoms of norovirus?

Norovirus symptoms include nausea, vomiting, diarrhea, and stomach cramps. Some people also complain of headache, fever or chills, and muscle aches. Symptoms usually begin 12-48 hours after contact with the virus and usually last for 1-3 days. During that time, people can feel very ill and often vomit violently or have explosive diarrhea many times a day.

How is norovirus spread?

Norovirus is found in the stool or vomit of infected people. Ill people are contagious for up to three days after their symptoms resolve. The virus is very contagious and easily spread by:

- Eating food or drinking liquids contaminated with norovirus.
- Touching surfaces or objects contaminated with norovirus, and then placing a hand to the mouth. For example, a child picks up tongs on a salad bar previously handled by a child with norovirus, takes some carrots, and then eats the carrots with hands. In another example, a school nutrition worker handles a door knob infected with norovirus and then serves food.
- Having direct contact with stool or vomit from a person who is infected.
- Having contact with tiny droplets of vomit that becomes airborne during a vomiting incident or from splashing. Droplets can travel through the air up to 25 feet to land on food and food contact surfaces.

Why is norovirus important for school nutrition employees?

People working with food who are sick with norovirus can easily make others ill. A sick child nutrition employee can – without meaning to – contaminate the food he or she is handling. Many of those eating the contaminated food may become ill, resulting in an outbreak. People infected with norovirus are contagious from the moment they begin feeling ill to at least 3 days after symptoms are gone. Some people may be contagious for as long as 2 weeks after recovery. It is important for people to use good handwashing and other hygienic practices, especially after they have recently recovered from norovirus illness.

How can norovirus be prevented?

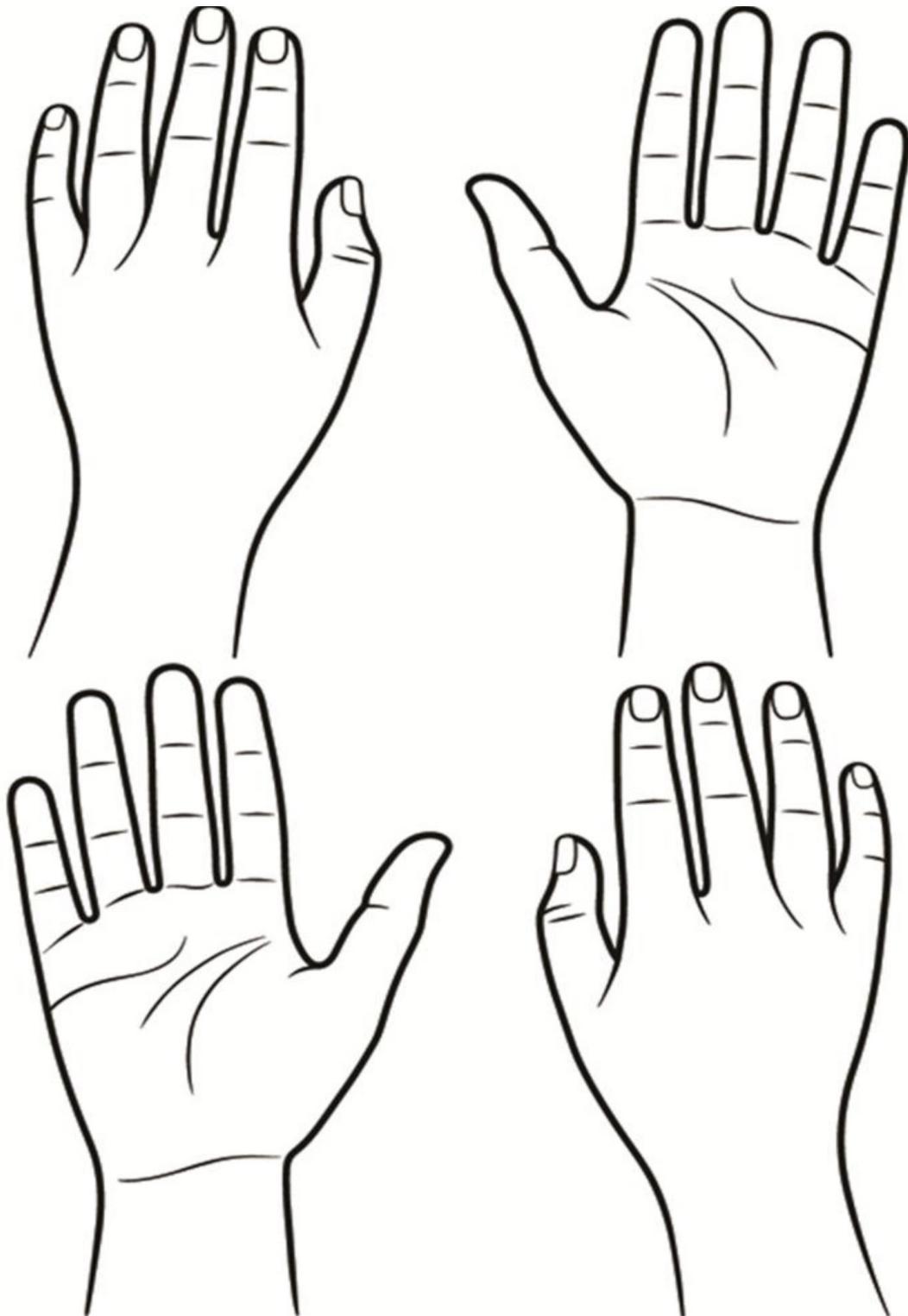
Everyone plays a part in the prevention of norovirus by practicing good personal hygiene, which includes:

- Frequent handwashing with soap and water, especially after each toilet visit, before eating or preparing food, before putting on clean gloves, and after changing diapers in child care settings.
- Preventing bare hand contact with all ready-to-eat and ready-to-serve foods.
- Reporting illness symptoms to your manager and/or director.
 - » This includes symptoms of vomiting, diarrhea, jaundice or yellowing of the skin or eyes, a sore throat with fever, and infected cuts on hands, wrists, or exposed arms.
 - » You should also tell your manager and/or director if you have been diagnosed with or in contact with others having foodborne illnesses, which in addition to norovirus includes Hepatitis A, *Shigella*, *E. coli*, *Salmonella* Typhi, and non-typhoidal *Salmonella*.
- Staying home when you are ill. For illnesses like norovirus, your manager will ask that you stay home until your symptoms have been resolved for two days.



Norovirus is the leading cause of foodborne disease in the United States and has been the primary source of outbreaks in schools. Follow prevention steps to reduce the likelihood of an outbreak.

Handwashing Challenge



Wash Your Hands

Video Viewing Guide

Instructions: As you watch the video “Wash Your Hands”, record how hands are washed and when hands are washed below.

How to Wash Hands	When to Wash Hands



Effective Handwashing

What is effective handwashing?

Effective handwashing is cleaning hands and exposed arms by applying soap and warm water, rubbing them together vigorously, rinsing them with clean water, and drying them thoroughly. Handwashing is important to get rid of dirt and reduce germs that can cause illness. The following steps are required for effective handwashing:

1. Use the handwashing sink with running warm water.
2. Rinse hands and exposed parts of the arms under running water and apply soap.
3. Lather hands together for at least 10-15 seconds, paying close attention to fingernails, between the fingers/fingertips, and surfaces of the hands and arms.
4. Rinse thoroughly with clean, warm running water.
5. Thoroughly dry the hands and exposed portions of arms with single-use paper towels or a heated-air hand-drying device.
6. Avoid recontamination of hands and arms by using a paper towel to turn off hand sink faucets or to open the restroom door.

Why is handwashing important?

Handwashing reduces contamination on hands and prevents it from passing to food. Organisms can get on hands from a number of sources—such as a dirty cutting board, a pencil, or a refrigerator handle—and then move from hands to food or

equipment during preparation and service. An infected school nutrition employee, or one with unclean hands or exposed portions of arms or fingernails, can contaminate food, potentially causing illness. Food equipment contaminated by unclean hands can further spread illness through cross contamination.

When should school nutrition employees wash their hands?

Hands should be washed immediately:

- When entering a food preparation area;
- Before putting on new, single-use gloves for working with food and between glove changes;
- Before starting food preparation;
- Before handling clean equipment and serving utensils;
- When changing tasks and switching between handling raw foods and working with ready-to-eat foods;
- After handling soiled dishes, equipment, or utensils;
- After touching bare human body parts, for example, hair, face or other exposed skin;
- After using the toilet;
- After coughing, sneezing, blowing the nose, eating, or drinking.

Can hand sanitizers be used in place of adequate handwashing in food preparation areas?

No. Hand sanitizers do not take the place of adequate handwashing, and if used should be applied only after proper handwashing.



No Bare Hand Contact with Ready-To-Eat Foods

Is it necessary to use single-use gloves when preparing food?

When hands are heavily contaminated, effective handwashing may not thoroughly remove microorganisms to ensure safety. The FDA requires the use of suitable utensils such as spatulas, tongs, single-use gloves, or dispensing equipment when handling ready-to-eat foods (i.e., food that is eaten without further washing or cooking). Single-use gloves used after handwashing can be an effective barrier to the transfer of microorganisms from hands to food. However, gloves are effective in preventing contamination only if used properly.

What are the instructions for properly wearing single-use gloves?

1. Always wash hands before putting on gloves.
2. Change single-use gloves when changing tasks and between handling raw products and ready-to-eat products.
3. Do not wash or reuse single-use gloves.
4. Replace torn or damaged single-use gloves.
5. Cover an infected cut, burn or boil with pus with a waterproof covering and a single-use glove.



Restricting or Excluding Ill School Nutrition Employees

What symptoms or conditions should school nutrition employees report to their supervisor?

The following symptoms or conditions should be reported:

- Diarrhea or vomiting
- Sore throat with a fever
- An infected cut or wound on hands or arms
- Jaundice (eyes or skin turns yellow)
- Diagnosis with a foodborne illness
- Exposure to a foodborne illness



What should managers/directors do once the symptoms are reported?

Depending on the symptom or diagnosis, the manager/director will decide if the employee needs to immediately be “restricted” or “excluded” from duties to prevent foodborne illness.

What is *exclusion*?

Exclusion means a school nutrition employee is not permitted to work in or enter a food preparation site. This requirement applies to areas where food is received, prepared, stored, packaged, served, vended, transported, or purchased.

Most often, this means that the school nutrition employee may not work at all. Though this can result in some loss of income, it is very important that school nutrition employees with certain symptoms not work to prevent others from becoming ill.

What is *restriction*?

Restriction means a school nutrition employee’s activities are limited to prevent the risk of transmitting a disease that is spread through food.

A restricted employee cannot handle exposed food, clean equipment, utensils, linens, or unwrapped single-service or single-use articles. Job duties for employees who are restricted may include working as a cashier, stocking canned or other packaged foods, or working in cleaning or maintenance tasks away from food preparation areas.



Who can *exclude* or *restrict* a school nutrition employee?

The school nutrition manager/director has the authority to exclude or restrict a school nutrition employee from the school food preparation site to prevent the spread of illness through food. The local health department also has the authority to exclude or restrict a school nutrition employee who is suspected of being at risk for transmitting foodborne illness.

Who can lift the exclusions and restrictions?

In most cases, the school nutrition manager/director removes, adjusts, or retains the exclusion or restriction. In some cases, an approval from a medical provider or the local health department is required to lift an exclusion or restriction depending on the illness.



EXCLUDE or RESTRICT

Instructions: For each of the symptoms or illnesses, decide whether the employee should be excluded, restricted, or allowed to work?

→ **Definitions**

- **Exclude:** to prevent a person from working as an employee in a food establishment or entering a food establishment as an employee.
- **Restrict:** to limit the activities of a food employee so that there is no risk of transmitting a disease that is transmissible through food, and the food employee does not work with exposed food, clean equipment, utensils, linens, or unwrapped single-service or single-use articles.

	May Work	Exclude	Restrict
Jessica has a cold with watery eyes, sneezing and sniffles.			
Nina is having bouts of vomiting.			
Jorge has a cut on his hand that is infected and uncovered.			
Mia’s husband has been diagnosed with a foodborne illness.			
Leonard has a persistent cough.			
Aggie has a sore throat and fever.			
Annette has diarrhea.			
Linda has been diagnosed with norovirus.			
Ben’s last episode of diarrhea was 48 hours ago.			

Identify the Components of the Body Fluid Cleanup Kit

Instructions: Below are items in a Body Fluid Cleanup Kit. Place a check mark in the column that best describes each item.

- Which are for Personal Protective Equipment (PPE)?
- Which are for cleaning?

Items	PPE	Cleaning
Bucket and/or spray bottle		
Disposable gown		
Effective disinfectant*		
Face mask with face/eye shield		
Gloves		
Paper towels		
Plastic garbage bag		
Sand, cat litter, or commercial absorbent powder		
Scoop, small shovel, or dustpan		
Shoe covers		

* EPA-registered disinfectants effective against norovirus (www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus) or chlorine bleach (8.25% concentration) at 1000 - 5,000 parts per million (ppm) (4 tablespoons and 16 tablespoons (1 cup) of bleach with 1 gallon of water). It is recommended that 1 cup of bleach per 1 gallon of water be used on surfaces that have had direct contact with body fluids.

* Read the label on the bleach bottle:
Sodium hypochlorite is the active ingredient in chlorine bleach. Different brands of bleach may have different amounts of this ingredient; up to 8.25% sodium hypochlorite. Read the label to find out the concentration of sodium hypochlorite and prepare the disinfecting solution as appropriate.

Contact your local health department and State agency for information pertaining to your local and state policies.

Assembling a Body Fluid Cleanup Kit

Why a Body Fluid Cleanup Kit?

All body fluids, including vomit, stool, and blood, should be treated as infectious material. Germs, like norovirus, that are spread through body fluids cannot be killed effectively using common foodservice detergents and sanitizers. If a worker or customer has vomited or contaminated a surface with body fluid, use of special procedures and a special disinfectant are required. It is also important to protect yourself from illness. A Body Fluid Cleanup Kit must contain the correct supplies to protect you and thoroughly disinfect the area. Keep the kit ready for immediate use.

What is included in a Body Fluid Cleanup Kit?

1. Personal Protective Equipment (PPE)

A Body Fluid Cleanup Kit contains PPE to safeguard the individual responding to an incident. These items protect clothes and shoes from contamination. The equipment also protects the face from splashing and airborne particles, and hands from direct contact with body waste. Each kit should contain:

- Twelve (12) pairs of disposable, nonabsorbent, medical grade gloves
- One (1) face mask with face shield or goggles
- One (1) pair of shoe covers
- One (1) disposable gown



2. Cleaning Supplies

A Body Fluid Cleanup Kit contains supplies to safely and thoroughly remove and dispose of the waste. Cleaning supplies to include:

- Multiple packages of disposable paper towels
- Bucket and chemical spray bottle
- A designated mop head for body fluid cleanup or disposable mop heads (2)
- Plastic garbage bag and twist-ties
- Disposable scoop, small shovel, or dustpan
- Sand, cat litter, or commercial absorbent powder

3. Disinfectant

Common foodservice detergents and sanitizers are not effective in killing all germs that can be spread through body fluids. A special disinfectant is necessary. The Environmental Protection Agency (EPA) keeps a list of registered disinfectants on its website:

- EPA-approved disinfectants appropriate for norovirus: www.epa.gov/pesticide-registration/list-g-eparegistered-hospital-disinfectants-effective-against-norovirus
- EPA-approved disinfectants appropriate for bloodborne pathogens: www.epa.gov/pesticide-registration/list-d-epas-registered-antimicrobial-products-effective-against-human-hiv-1

Chlorine bleach (8.25% concentration) can also be used when prepared to a concentration of 5000 parts per million. Mix bleach and water together using following measurements.

- 1 cup bleach to 1 gallon of water or
- 5 cups bleach to 5 gallons of water

This is a very strong bleach solution. Use gloves and safety eye goggles to mix the bleach solution. The solution should be made fresh before each use because the solution becomes less concentrated over time. Use only in a well ventilated area.

4. Standard Operating Procedures

The kit should contain written procedures for the safe use of the Body Fluid Cleanup Kit.

Place all items into a waterproof container. Seal the lid and label with date. The EPA-registered disinfectant or chlorine bleach should be stored with an appropriate container (bucket or spray bottle) for chemical mixing. Store these items in an appropriate area. Keep the kit ready for immediate use.

How can I protect myself from illness?

All body fluids, including vomit, stool, and blood, should be treated as infectious material. The Body Fluid Cleanup Kit contains the correct supplies to protect you and to thoroughly disinfect an area after an incident. When cleaning up body fluids, you can protect yourself by wearing the personal protective equipment and following the directions in the standard operating procedures.

Assembling a Body Fluid Cleanup Kit (Sample SOP)

PURPOSE: To prepare for incidents requiring cleaning and disinfecting of body fluids, including vomit, diarrhea, and blood.

SCOPE: This procedure applies to school nutrition employees involved in assembling a body fluid cleanup kit to use for a body fluid cleanup incident.

KEYWORDS: Body Fluid Spill, Cleaning, Disinfecting, Body Fluid Cleanup Kit, Norovirus

INSTRUCTIONS:

1. Purchase, and keep on hand at all times, sufficient quantities of the following items needed to assemble and immediately re-stock a Body Fluid Cleanup Kit:

- Ethanol based hand sanitizer (62% Ethanol, FDA compliant)
- Waterproof container sufficient in size to store personal protective and cleaning equipment
- Personal protective equipment (PPE):
 - » Disposable, non-latex gloves. Gloves should be vinyl or nitrile (rubber), and non-powdered. Gloves should be supplied in various sizes.
 - » Disposable gown or apron, and shoe covers
 - » Face mask with eye protection, or goggles
- Cleaning supplies:
 - » Sand, or liquid spill absorbent material
 - » Disposable flat-edge scoop, or equivalent (e.g., dustpan, shovel)
 - » Plastic garbage bags and twist-ties
 - » Liquid soap
 - » Disposable paper towels
 - » Disposable mop head
- Disinfecting supplies:
 - » Bucket designated for chemical use
 - » Spray bottle
 - » Household bleach (8.25% concentration, unscented)+
 - » Measuring spoon (tablespoon) and cup (1 cup)
 - » Disposable paper towels
 - » Disposable mop head
 - » Plastic garbage bags and twist-ties

+ EPA-approved disinfectants may be used instead of chlorine bleach solutions. EPA-approved disinfectants appropriate for vomit and diarrhea may be found at <https://www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus>. CDC guidelines on norovirus outbreak management and disease prevention recommend using chlorine bleach solutions on hard surfaces when possible. EPA-approved disinfectants appropriate for blood may be found at <https://www.epa.gov/pesticide-registration/list-d-epas-registered-antimicrobial-products-effective-against-human-hiv-1>.

2. Assemble a Body Fluid Cleanup Kit using the materials purchased in step 1 of this SOP:
 - Place the following supplies into a waterproof container:
 - » Twelve (12) pairs of disposable, non-latex gloves
 - » One (1) disposable gown or apron
 - » One (1) pair of disposable shoe covers
 - » One (1) face mask with eye protection, or goggles
 - » One (1) package of disposable paper towels
 - » Two (2) disposable mop heads
 - » One (1) disposable flat-edge scoop, or equivalent
 - » Two (2) dry cups of sand, or liquid spill absorbent material
 - » Four (4) plastic garbage bags and twist-ties
 - » Procedures for use of the Body Fluid Cleanup Kit. For example, the Food Safety SOP *Cleaning and Disinfecting Body Fluid Spills*
 - Seal the waterproof container with a lid and label with the date.
- * Pre-assembled commercial kits containing recommended supplies are available through many vendors. Check with your chemical supply company or foodservice distributor.
3. Store the Body Fluid Cleanup Kit with an unopened container of household bleach, or the EPA-approved disinfectant, the bucket designated for chemical use, and the spray bottle in an area designated for chemical storage and/or cleaning supplies.
4. Train school nutrition employees on how to use PPE and the contents of the Body Fluid Cleanup Kit.

MONITORING:

The school nutrition manager will ensure that:

1. The Body Fluid Cleanup Kit is properly assembled at all times. This includes ensuring that supplies and chemicals have not expired.
2. Excess materials and supplies are available to immediately restock the Body Fluid Cleanup Kit after use.
3. The Body Fluid Cleanup Kit, and associated chemicals and supplies, are stored in accordance with this SOP.
4. School nutrition employees are trained to properly use:
 - PPE, and
 - The Body Fluid Cleanup Kit.

CORRECTIVE ACTION:

The school nutrition manager will:

1. Properly assemble/restock the Body Fluid Cleanup Kit immediately. Replace expired/out-of-date supplies.
2. Provide excess materials and supplies to enable immediate restocking of the Body Fluid Cleanup Kit.
3. Retrain school nutrition employees in proper storage of the Body Fluid Cleanup Kit, and associated chemicals and supplies.

4. Retrain/educate school nutrition employees in how to properly use PPE and the Body Fluid Cleanup Kit.

VERIFICATION AND RECORD KEEPING:

The school nutrition manager will:

1. Once per month, check the Body Fluid Cleanup Kit to ensure that it is properly assembled, and create and complete a log to document that the monthly check occurred. Keep the log on file for a minimum of one year.
2. Complete a *Damaged or Discarded Product Log* when expired/out-of-date supplies are discarded. Keep the log on file for a minimum of one year.
3. Document training sessions for school nutrition employees in proper use of PPE and the Body Fluid Cleanup Kit using an *Employee Food Safety Training Record*.

DATE IMPLEMENTED: _____

DATE: _____

DATE REVIEWED: _____

DATE: _____

DATE REVISED: _____

DATE: _____

Using a Body Fluid Cleanup Kit

When should I use a Body Fluid Cleanup Kit?

All body fluids, including vomit, stool, and blood, should be treated as infectious material. If a worker or customer has vomited or contaminated a surface with body fluid, cleaning by special procedures using a special disinfectant is required. School nutrition employees trained in the appropriate use of the Body Fluid Cleanup Kit should respond to an incident in the food preparation or service areas. School custodial staff should handle body fluid cleanup in other areas of the school.

An employee has vomited in the kitchen. What should I do first?

The first step is to remove all individuals within a 25-foot radius from the area and ask them to immediately wash their hands. When someone vomits, germs such as norovirus can spread by air and contaminate surfaces and food as far as 25 feet away. If someone eats these foods or touches these surfaces and accidentally ingests the particles, they can become sick. Potentially contaminated clothing should be removed as soon as possible. Then the clothing should be machine washed in hot water using the longest available cycle and dried on the hottest setting. To block entry into the contaminated area, an employee should be stationed near the entrance. Also, it is important to stop all foodservice operations including preparing and serving food, and dispose of all uncovered exposed food within the 25-foot radius. In addition, discard intact and sealed containers or single-service items within the 25-foot radius if it is not practical to disinfect the surface.

How do I use the Body Fluid Cleanup Kit?

The Body Fluid Cleanup Kit contains the correct supplies to protect you from illness and thoroughly disinfect an area contaminated by body fluids. Only school nutrition employees trained in the appropriate use of the Body Fluid Cleanup Kit should respond.

1. Use Personal Protective Equipment (PPE)

Put on the PPE to protect your clothes and shoes from contamination, to protect your face from splashing and airborne particles, and to protect your hands from direct contact with body fluid:

- Put covers over your shoes.
- Pull the disposable gown over your clothes.
- Put on the face mask with face shield or goggles.
- Put on a pair of disposable, nonabsorbent, medical grade gloves.
 - ◆ Consider double gloving (wearing two gloves on each hand). Replace gloves if they tear or become visibly soiled. Keep hands away from face while wearing gloves.





2. Contain Waste

Cover the body fluid spill with disposable paper towels, and/or sand, cat litter, or liquid spill absorbent material in the kit.

3. Remove Waste

Remove the solid waste and absorbent material using additional paper towels and a disposable scoop, small shovel, or dust pan. Use care to prevent splashing or contact with other surfaces. Put the contaminated material in the plastic garbage bag. Dispose of the gloves in the garbage bag, and thoroughly wash hands with soap and running water for 20 seconds before putting on clean gloves.

4. Clean Area

Clean the area with disposable paper towels or mop, detergent, and water. This includes surfaces that came into direct contact with body fluids, and surfaces that may have been contaminated with body fluids. Before disinfected, all surfaces should be thoroughly cleaned (i.e., not visibly soiled). Dispose of the paper towels and mop head, if disposable, in the garbage bag. Remove and dispose of gloves into garbage bag. Wash hands and put on new gloves.

5. Mix Disinfectant

Mix a fresh container of disinfectant to the recommended concentration. Transfer solution to a labelled spray bottle.

The Environmental Protection Agency (EPA) keeps a list of registered disinfectants on its website. Follow manufacturer's directions for mixing and concentration:

- EPA-registered disinfectants effective against norovirus www.epa.gov/pesticide-registration/list-g-eparegistered-hospital-disinfectants-effective-against-norovirus
- EPA-registered disinfectants effective against blood borne pathogens www.epa.gov/pesticide-registration/list-d-epas-registered-antimicrobial-products-effective-against-human-hiv-1

Chlorine bleach (8.25% sodium hypochlorite concentration) can also be used. Prepare a concentration of 1,000-5,000 parts per million (PPM):

- 4 tablespoons of bleach with 1 gallon of water (solution concentration of about 1000 parts per million (ppm)) can be used on surfaces without direct contact with the body fluid spill
- 1 cup of bleach per 1 gallon of water (5,000 ppm) to be used on surfaces that have had direct contact with body fluids
- Check with your chemical supplier to obtain test strips to ensure the concentrations are correct.

6. Disinfect Area

Using a spray bottle, saturate the cleaned area with disinfectant and surrounding 25-foot radius area, including food contact surfaces. Follow the manufacturer's directions for concentration and contact time. If a 5,000 ppm bleach solution is used for disinfecting, apply for a contact time of 5 minutes. Make sure the area is well ventilated.

7. Rinse Area

Rinse surfaces with clean water and paper towels and/or a disposable mop head. Allow surfaces to air dry. Dispose of the paper towels and/or disposable mop head in a plastic garbage bag. Remove gloves. Dispose of gloves in a plastic garbage bag, wash your hands, and put on new gloves.

8. Discard Potentially Contaminated Food

Dispose of exposed food and food in containers within a 25-foot radius that may have been contaminated by bodily fluid in a garbage bag. Dispose of gloves in a plastic garbage bag, wash your hands, and put on new gloves. Securely tie the garbage bag containing the waste, and place into a second garbage bag.

9. Clean Tools, Remove PPE, and Dispose of Waste

Clean and disinfect any tools, designated non-disposable mop heads, or other non-disposable items used in the cleanup. Remove PPE including gloves and place into a second garbage bag. Use the twist tie to seal the garbage bag. Take the bag to the disposal area specified by your school administration.

10. Wash Up

If necessary, remove and bag soiled clothing. These items should be machine washed in hot water using the longest available cycle and dried on the hottest setting. Wash hands, exposed arms, and face with germicidal soap. Apply hand sanitizer to hands. Put on fresh clothing, if necessary. Wash, rinse, and sanitize all food contact surfaces.

Can we resume foodservice operations?

For surfaces treated with disinfectant within the 25-foot radius, first it is necessary to use a clear water rinse. Next, wash, rinse, and sanitize all food contact surfaces using an approved sanitizer safe for food contact surfaces. After the surfaces have air dried, normal operations can resume.

Additionally, clean and disinfect high touch areas outside of the 25-foot zone, e.g. handles on doors, equipment, dispensers, carts and sinks, telephones, and common areas including dining areas, breakrooms, and restrooms, as a preventive measure.

Make sure to restock the contents of the Body Fluid Cleanup kit and store it for the next use. Document the cleanup event.

After a cleanup event, all employees should be alert for the signs and symptoms of norovirus and be reminded to report foodborne illness symptoms to their manager, including vomiting or diarrhea.

Cleaning and Disinfecting Body Fluid Spills (Sample SOP)

PURPOSE: This Standard Operating Procedure (SOP) should be implemented to safely and properly respond to all incidents requiring cleaning and disinfecting of body fluid spills. Body fluids – including vomit, diarrhea, and blood – are considered potentially infectious. Employees should always wear personal protective equipment when cleaning and disinfecting body fluid spills.

SCOPE: This procedure applies to school nutrition employees that would clean a bodily fluid spill.

KEYWORDS: Body Fluid Spill, Cleaning, Disinfecting, Body Fluid Cleanup Kit, Norovirus

INSTRUCTIONS:

1. Contain the affected area
 - Discontinue foodservice operations if spill occurred in food preparation or service areas.
 - » Refer to the school district’s Alternate Meal Service SOP to safely continue meal service.
 - Block off the area of the spill from staff and students until cleanup and disinfection are complete. For incidents involving vomit, contain all areas within 25 feet of the spill.
 - Send sick staff and students to the school clinic/nurse for assistance.
 - Exclude (i.e., send home) school nutrition employees with symptoms of vomiting or diarrhea from foodservice operations. Refer to the school district’s Exclusions and Restrictions for Ill or Infected School Nutrition Employees.
 - Allow only school nutrition employees and/or custodial staff designated to clean and disinfect body fluid spills in the affected area. If the spill is in a non-foodservice area, school custodial staff should handle the cleanup.
2. Retrieve the Body Fluid Cleanup Kit.
 - Refer to the Food Safety Sample SOP *Assembling a Body Fluid Cleanup Kit*.
3. Put on personal protective equipment (PPE), including:
 - Disposable, non-latex gloves. Gloves should be vinyl or nitrile (rubber), and non-powdered.
 - » Consider double gloving (wearing two gloves on each hand). Replace gloves if they tear or become visibly soiled. Keep hands away from face while wearing gloves.
 - A disposable gown or apron, and disposable shoe covers.
 - A face mask with eye protection, or goggles.
4. Remove visible body fluid
 - Pour sand, or liquid spill absorbent material, on body fluid spill.
 - Use a disposable scoop, or equivalent, and disposable paper towels to remove the sand and body fluid from the affected surfaces.
 - Dispose of the sand, body fluid, disposable scoop, and paper towels in a plastic garbage bag.
 - Remove gloves. Dispose of gloves in a plastic garbage bag.
 - Wash hands.

5. Clean the affected area

- Put on new disposable gloves. Consider double gloving.
- Clean the affected area with soap and water, and paper towels and/or a disposable mop head. This includes surfaces that came into direct contact with body fluids, and surfaces that may have been contaminated with body fluids. **Before disinfection (Step #6), all surfaces should be thoroughly cleaned (i.e. not visibly soiled).**
- Dispose of the paper towels and/or disposable mop head in a plastic garbage bag.
- Remove gloves. Dispose of gloves in a plastic garbage bag.
- Wash hands.

6. Disinfect the affected area

- Put on new disposable gloves. Consider double gloving.

Non-absorbent Surfaces (i.e., tile, stainless steel)

- Prepare a chlorine bleach disinfecting solution.*
 - » Wear all PPE, including the face mask with eye protection, or goggles. Ensure that area is well ventilated (mix solution outdoors if necessary).
 - » Prepare solution immediately before applying it to surfaces using unscented, household bleach (8.25% sodium hypochlorite concentration)** and water. Once opened, household bleaches lose their effectiveness after 30 days. Use a new, unopened bottle of bleach every 30 days for preparing solutions.
 - » Mix 4 tablespoons of bleach with 1 gallon of water (solution concentration of about 1,000 parts per million (ppm)) in a bucket designated for chemical use. It is recommended that 1 cup of bleach per 1 gallon of water be used on surfaces that have had direct contact with body fluids (5,000 ppm).
 - » Transfer solution to a labelled spray bottle.
- Using the spray bottle, generously apply the disinfecting solution to affected surfaces, including surfaces that came into direct contact with body fluids, and surfaces that may have been contaminated with body fluids.
 - » For incidents involving vomit, disinfect all areas and surfaces within 25 feet of the spill.
 - » Use in a well-ventilated area.
- Disinfect high touch areas (e.g., door handles, toilets, dispensers, carts, sink faucets, telephones, etc.) throughout the foodservice area, cafeteria dining areas, break rooms, and restrooms using disinfecting solution and paper towels.
- **Leave the disinfecting solution on affected surfaces for a minimum of 5 minutes.** If another EPA-approved disinfectant is used, follow the manufacturer's instructions.
- Rinse surfaces with clean water, and paper towels and/or a disposable mop head.
- Allow surfaces to air dry.
- Dispose of the paper towels and/or disposable mop head in a plastic garbage bag.
- Remove gloves. Dispose of gloves in a plastic garbage bag.
- Wash hands.

* EPA-approved disinfectants may be used instead of chlorine bleach solutions. EPA-approved disinfectants appropriate for vomit and diarrhea may be found at www.epa.gov/pesticide-

registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus. CDC guidelines on norovirus outbreak management and disease prevention recommend using chlorine bleach solutions on hard surfaces when possible. EPA-approved disinfectants appropriate for blood may be found at www.epa.gov/pesticide-registration/list-d-epas-registered-antimicrobial-products-effective-against-human-hiv-1.

** Household bleach products have previously been available in 5.25% and 6% sodium hypochlorite concentrations. Ensure you are using the correct solution depending on the concentration of bleach you have. Best practice is to use high strength chlorine test strips to ensure a chlorine concentration of 1,000 - 5,000 ppm. Check with your chemical supplier to obtain test strips.

Absorbent Surfaces (i.e. carpet, upholstery, cloth)

- Disinfect with a chemical disinfectant when possible.
- Steam clean for a minimum of 5 minutes at 170 °F.
- Launder in a mechanical washing machine on the hottest water setting, and dry in a mechanical dryer on a high heat setting.
- Dispose of disinfecting materials in a plastic garbage bag, as appropriate.
- Remove gloves. Dispose of gloves in a plastic garbage bag.
- Wash hands.

7. Discard potentially contaminated food.

- Put on new disposable gloves. Consider double gloving.
- Dispose of exposed food and food in containers that may have been contaminated by body fluid in a garbage bag.
 - » For incidents involving vomit, discard all food within 25 feet of the spill. Food in intact, sealed containers (i.e. cans) may be salvaged if adequately cleaned and disinfected.
 - » Have a second employee, one who is not directly contacting potentially contaminated food, inventory the discarded food in a *Damaged or Discarded Product Log*.
- Remove gloves. Dispose of gloves in a plastic garbage bag.
- Wash hands.

8. Dispose of PPE, and cleaning and disinfecting materials.

- Put on new disposable gloves. Consider double gloving.
- Securely tie garbage bags containing all materials disposed of in steps 4-7 of this SOP.
- Place garbage bags in a second garbage bag (double bag).
- Clean all non-disposable items (bucket, mop handle, etc.) with soap and water; then disinfect. Allow these items to air dry.
- Remove PPE, including disposable gloves, and place in second garbage bag.
- Securely tie the second garbage bag.
- Discard the bag(s) in the disposal area identified by school officials.
- Remove soiled clothes, if necessary, and place clothes in a separate garbage bag. Securely tie the garbage bag. Keep clothes in the tied garbage bag until they can be adequately laundered.

9. Wash hands, arms and face with soap and water in a restroom sink or hand sink. Put on clean clothing, if necessary. Apply ethanol based hand sanitizer to hands.

10. Wash, rinse, and sanitize potentially contaminated food contact surfaces. Include food contact surfaces that were disinfected in step 6 of this SOP, and food contact surfaces that contained food discarded in step 7 of this SOP. Refer to the Food Safety Sample SOP *Cleaning and Sanitizing Food Contact Surfaces*.
11. Restock the contents of the Body Fluid Cleanup Kit.
12. Complete an incident report.

MONITORING:

The school nutrition manager will:

1. Ensure that the Body Fluid Cleanup Kit is properly assembled at all times.
2. Ensure that at least one foodservice employee per shift is:
 - Designated and trained to implement this SOP, and
 - Trained in the use of the Body Fluid Cleanup Kit.
3. Ensure that foodservice employees are:
 - Educated on illnesses and symptoms that must be reported to managers.
 - Monitored for signs and symptoms of illness.

CORRECTIVE ACTION:

The school nutrition manager will:

1. Restock the Body Fluid Cleanup Kit immediately. Replace expired/out-of-date supplies.
2. Retrain designated school nutrition employees in application of this SOP, and use of the Body Fluid Cleanup Kit.
3. Retrain/educate school nutrition employees in the school district's *Exclusions and Restrictions for Ill or Infected School Nutrition Employees*. Restrict or exclude ill school nutrition employees in accordance with SOPs.

VERIFICATION AND RECORD KEEPING:

The foodservice manager will:

1. Verify that an incident report was completed. Keep incident report on file for a minimum of one year.
2. Verify that Damaged or Discarded Product Log was completed. Keep log on file for a minimum of one year.
3. Document training sessions for school nutrition employees on applicable SOPs using an *Employee Food Safety Training Record*.

APPROVED BY: _____

DATE: _____

REVIEWED BY: _____

DATE: _____

REVISED BY: _____

DATE: _____

References

- Centers for Disease Control and Prevention. (2016). *General norovirus information*. Retrieved from <https://www.cdc.gov/norovirus/index.html>
- Centers for Disease Control and Prevention. (2014). *Norovirus and working with food*. Retrieved from <http://www.cdc.gov/norovirus/food-handlers/work-with-food.html>
- Conference for Food Protection. (2014). *Emergency action plan for retail food establishments second edition*. Retrieved from <http://www.foodprotect.org/media/guide/Emergency%20Action%20Plan%20for%20Retail%20food%20Est.pdf>
- Environmental Protection Agency. (2017). *List G: EPA registered hospital disinfectants effective against norovirus*. Retrieved from <https://www.epa.gov/pesticide-registration/list-g-epas-registered-antimicrobial-products-effective-against-norovirus>
- Food and Drug Administration. (2013). *Food code*. Retrieved from <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/ucm374275.htm>
- Annex 3 2-201.11 Reporting of Symptoms (2013)
 - Annex 3 2-201.12 Exclusions & Restrictions (2013)
 - Annex 3 2-201.13 Removal of Exclusions & Restrictions (2013)
 - Annex 3 2-3 Hands and Arms (Cleaning) (2013)
 - Annex 3 3-301.11 Preventing Contamination from Hands (2013)
 - Annex 3 2-501.11 Clean-up of Vomiting and Diarrheal Events (2013)
- Food and Drug Administration. (2014). *The bad bug book 2nd edition*. Retrieved from <http://www.fda.gov/Food/FoodborneIllnessContaminants/CausesOfIllnessBadBugBook/>
- Food and Drug Administration. (2017). *Employee health & hygiene handbook*. Retrieved from <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm113827.htm>
- Food and Drug Administration. (2015). *Employee health & hygiene interactive resource disk*. <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/ucm266434.htm>
- Food and Drug Administration. (2016). *FDA oral culture learner project - Educational materials for food employees*. Retrieved from <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm212661.htm>
- Food and Drug Administration. (2015). *Satellite broadcast and webcast: Using employee health and personal hygiene measures* May 27, 2010. Retrieved from <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm211949.htm>
- Food Marketing Institute. *Norovirus information guide*. Retrieved from http://www.fmi.org/docs/food-safety/norovirus_info_guide.pdf?sfvrsn=2

Institute of Child Nutrition. (2016). *Employee health and personal hygiene*. Retrieved from <http://www.theicn.org/ResourceOverview.aspx?ID=430>

Institute of Child Nutrition. (2016). *HACCP-based standard operating procedures*. Retrieved from <http://www.theicn.org/ResourceOverview.aspx?ID=75>

Institute of Child Nutrition. (2017). *Norovirus resource page*. Retrieved from <http://www.theicn.org/norovirus>

Institute of Child Nutrition. (2015). *Food safety in schools*. Retrieved from <http://theicn.org/ResourceOverview.aspx?ID=327>

National Education Association. *The stomach bug book*. Retrieved from <http://neahealthyfutures.org/wpcproduct/stomach-bug-book-english/>



The University of Mississippi
School of Applied Sciences
800-321-3054
www.theicn.org