# The Stomach Bug Book:

*What School Employees Need to Know*

The NEA Health Information Network (NEA HIN) is the non-profit arm of the National Education Association (NEA). The NEA is the nation's largest independent membership and labor association, representing more than 3.2 million educational employees. Since 1987, NEA HIN has provided health and safety information, materials, programs and services to NEA members. NEA HIN takes on some of the nation's most critical public health issues as it develops and delivers timely health and safety programs designed to improve the quality of life inside and outside of schools. NEA HIN's mission is to improve the health and safety of school personnel and students by providing programs and services that support effective teaching, learning and good health.

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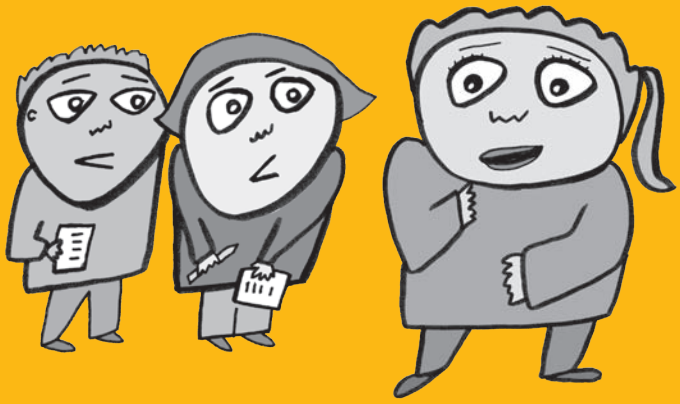
Megan just threw up, and kids are calling for help. You rush to help her. As a school employee, what do you need to know about stomach illnesses in order to protect yourself and others at school? What should be the first thing you do? This booklet will give you the information you need to minimize health risks from fast-spreading stomach illnesses.



# INTRODUCTION

**When Megan threw up, your first impulse was to rush to help her.**

What should you have done next? Give Megan something to cover her mouth and remind her not to touch her face with her hands. Separate the other children and have them wash their hands. Don't try to clean it up unless you have the correct supplies and use the techniques described in this booklet.

This booklet explains what you—the school employee—need to know about stomach illnesses at school. What are your responsibilities? How can you decrease the risks to yourself, your co-workers, and other students? How should you clean up? This booklet will answer these questions for you and provide you with tips to share with your co-workers, family, and the school community.

When a stomach bug caused by norovirus strikes a child or an adult, it usually strikes fast. Symptoms include nausea, vomiting, diarrhea, and stomach cramps.

When there are many people in a setting such as a school, illnesses can spread quickly. At any time school personnel may need to respond—whether in the classroom, on the playground or school bus, or in the clinic.

## Types of stomach illnesses

**Stomach illnesses can be viral, bacterial, or parasitic.** Viral illnesses include those caused by norovirus and rotavirus. Bacterial illnesses include infections caused by *Salmonella* and *E.coli* or may result from ingesting toxins produced by bacteria. Parasitic illnesses include those caused by *Giardia* and *Cryptosporidium*. Norovirus is the most common cause of stomach illness. Many of the same protection and prevention methods for norovirus are effective for other types of illnesses.

People with norovirus spread the virus in their stool and vomit. People become infected in several ways including:

- eating or drinking contaminated food or liquids
- touching contaminated surfaces or objects and then placing their hand in their mouth
- having direct contact with an infected person

**What is norovirus?**

Norovirus is a very contagious stomach illness. People usually feel sick suddenly with no warning. They may have sudden, explosive vomiting, watery diarrhea, and stomach cramps. They can become ill within 12 to 48 hours after being exposed and can infect others for up to three days after recovery, or possibly longer. Although they feel really bad while they are sick, most people get better without treatment.

### Did you know?

Norovirus causes over half the food-related illnesses each year, infecting an estimated 21.5 million people.

Claude the custodian is always working, keeping the school clean and running. Whenever anything needs fixing or there's an accident,

Claude is the one who takes care of it. He has the right supplies and knows the right way to clean up after someone vomits at school. He knows to put on protective clothing before he begins any cleanup. He always uses his gloves and disposable facemasks during the cleanup and works hard to make sure everyone stays healthy. He knows to use special cleanup procedures for carpet, curtains, and any other soft surfaces.

TIP:

Treat any vomiting episode as if it is norovirus and follow special cleanup procedures.

Did you know?

**Hand washing works** and should be used as the first option to protect against the spread of disease. Use hand sanitizer when soap and water are not available. Schools that started hand washing programs or installed hand sanitizers reduced illnesses and absences.

When someone vomits, tiny particles can spread widely and land on surfaces as far as 25 feet away. If someone touches these surfaces and accidentally ingests the particles, they can become sick. Treat all vomit and other body fluids as infectious material. The procedures described in this booklet should be used to cleanup after an incident. If bleach solution is used as a disinfectant, be sure to increase the ventilation in the cleanup area.

## Prevent the Spread

**You can decrease the chance of getting or spreading norovirus by following these steps:**

*Wash your hands with soap and water frequently.* Washing your hands is one of the most effective ways to keep disease from spreading. Drying your hands with a paper towel or hand dryer is also an important part of keeping your hands free of bugs that cause disease. Always make sure all hand washing sinks in your school building have adequate soap and hand drying supplies available.

Always wash and dry your hands after using the bathroom, changing diapers, or removing disposable gloves. Most importantly, wash your hands before eating or preparing food. Use hand sanitizers when soap and water are **not** available.

**Follow correct procedures for cleanup.** When someone vomits or has diarrhea, use the approved supplies and the techniques described in this booklet for cleanup.

**Stay home when you are sick.**

**Follow food safety rules.**
Safely prepare and store all foods.

**CLEAN**: wash hands, surfaces, utensils, and food—especially fruits and vegetables—very well.

**SEPARATE**: keep raw foods and their juices away from cooked and ready-to-eat foods.

**COOK:** use a food thermometer and cook food to the right temperature.

**CHILL:** refrigerate perishables and cooked foods quickly.

**Do not prepare food when you are sick or for at least three days after the symptoms are gone.**

**Properly dispose of any food that an infected person may have prepared.**

## Cleanup Supplies

Treat all vomit and body fluids as infectious material. Norovirus spreads easily and resists many disinfectants. Have supply kits ready for immediate use. Only personnel equipped with the right supplies and using cleaning procedures described in this booklet should clean up when someone vomits or has diarrhea.

TIP:

**Handwashing:**
Lather with soap and rub your hands vigorously under running water for at least 15-20 seconds. Rinse hands and dry completely with a paper towel, then turn the water off using that towel.

TIP:

**Remember,** "clean, separate, cook, chill" for food safety.

TIP:

To prevent further spread of infection, the guidelines in this booklet should be followed.

Nicole is a school nurse. She sees lots of kids because she works at many different sites during the day.

She makes sure all of the kids get the right care when they come to the clinic. She also keeps in contact with the local health department and knows the signs of a stomach virus outbreak vs. one upset tummy.

She knows how to prevent the spread of illness and trains school employees to make sure they know also.

Shannon the special education assistant works every day with children with special needs.

She helps many students who are severely disabled and have unique medical needs. Shannon knows a stomach illness is especially risky to these students and is careful not to expose them to sick students or adults. If one of these students, or any other student, or an adult gets sick at school, Shannon needs training to know what to do.

TIP:

**Each supply kit should include the following:**

- Disposable gloves
- Disposable gown
- Disposable mask
- Safety goggles
- Plastic garbage bags
- Disposable cloths
- Disposable mop
- Bleach
- Bucket

TIP:

For routine cleaning, don't use the same cleaning equipment in the kitchen and the bathrooms. Have a separate kit for vomit cleanup that is not used for routine cleaning.

## Personal protective equipment

To keep from getting sick, use disposable face masks, non-absorbent gloves, and disposable gowns/aprons to clean up after an incident. Disposable gloves and gowns protect hands and clothing. Wear a disposable face mask because the virus can vaporize and become airborne during cleanup. Wear safety goggles when mixing all chemical solutions.

Put on the disposable gown, face mask, safety goggles, and gloves **before** beginning to clean up.

## Other supplies

Other supplies to have ready include plastic garbage bags, bleach or other disinfectants, disposable cloths or paper towels, buckets and mops. **The non-disposable equipment designated for cleaning up after vomiting incidents should not be used for routine cleaning.**

**While wearing the equipment:**

Keep hands away from face.

Do not touch any unnecessary surfaces.

Change gloves when torn or dirty and discard gloves after each use.

Remember to wash your hands with soap and water and thoroughly dry your hands after you finish the cleanup.

## Cleanup Techniques

When someone vomits, immediately clear the area. Have all individuals who were touched by vomit wash their hands and, when possible, change their clothes.

**Prepare bleach disinfectant solution**
Put on safety goggles before mixing bleach solution. Prepare 5000 parts per million (ppm) chlorine bleach solution by adding 8 $^{1}/_{3}$ cups of standard household (5.25%) bleach to 5 gallons of water. This is a very strong bleach solution that should only be used in a well ventilated area.

Other disinfectants may also be effective against norovirus. The Environmental Protection Agency (EPA) keeps a list of registered disinfectants on its website.

## Basic Cleanup Procedures

**1.** Personnel should put on a disposable face mask, nonabsorbent gloves, and gown/apron. Follow the directions for putting on personal protective equipment.

**2.** Use paper towels or disposable cloths to clean up the soiled materials and liquid.

**3.** Place used towels or cloths into a garbage bag.

**4.** Use paper towels to wipe the area clean with detergent and water.

TIP:

**How to put on personal protective equipment**

- Put on the gown, making sure it covers from neck to knees and from shoulder to the end of the wrists. Gown wraps around the back.
- Put on the face mask, fit snugly to face and below chin.
- Put on safety goggles to cover eyes.
- Put on gloves and extend to cover wrists of gown.

TIP:

**How to mix disinfecting bleach solution:**
Put on safety goggles before mixing bleach solution.
To make a bleach solution for disinfecting (5000 ppm), mix 8 $^{1}/_{3}$ cups bleach with 5 gallons of water.
Use disinfecting bleach solution in a well ventilated area.

Ben the bus driver takes care to keep the children safe on the bus. Along with driving the school bus safely, he cleans the bus regularly.

He is often the first school employee to see a child who looks ill. He notices if children aren't coming to school. If a student vomits on the bus, Ben needs to know what to do to protect himself and the other students. He needs to have at least a disposable face mask, disposable gloves, and paper towels. The bus driver should disinfect the bus as soon as possible after an incident occurs.

TIP:

**How to remove personal protective equipment**

- Take the outside of one glove with the other gloved hand and peel off.
- Hold removed glove in gloved hand.
- Slide fingers of ungloved hand under remaining glove at wrist.
- Peel second glove off over first glove and put in garbage bag.
- Undo ties of gown without touching front and sleeves.
- Pull gown away from neck and shoulders, touching only inside of gown.
- Turn gown inside out and roll into bundle.
- Remove mask by touching only ties or elastic and remove without touching the front of soiled areas.
- Wash hands carefully with soap and water.

**5.** Cover the site with clean paper towels and soak with the bleach solution. Disinfect with bleach solution for at least five minutes.

**6.** Place all soiled paper towels and disposable cleaning items in garbage bag.

**7.** Clean and disinfect any tools or other nondisposable items used in the cleanup with bleach solution.

**8.** Remove disposable gloves, gown/apron, and face mask carefully and place in garbage bag.

**9.** Seal the garbage bag before placing it in trash.

**10.** Wash hands and face immediately.

## Cleanup technique for carpets, curtains, upholstery and other soft surfaces

Carpets, curtains, and other soft surfaces require special handling to prevent any part of the virus from becoming airborne.

**1.** Trained personnel should put on a disposable face mask, nonabsorbent gloves, and gown/apron. Follow the directions for putting on personal protective equipment.

**2.** Cover the vomit using disposable, absorbent materials such as paper towels.

**3.** Carefully place the soiled paper towels in a plastic bag to minimize the chance of any particles becoming airborne.

**4.** Disinfect carpets with a chemical

disinfectant and steam clean for a minimum of five minutes at a temperature of 170°F or for one minute at 212°F.

Handle soiled laundry gently: Do not shake. Wash with hot water and dry on the hot setting. Wash soiled laundry separately from other laundry.

## Kitchen and Cafeteria Cleanup

**Kitchen and cafeteria areas require extra care when someone vomits in those areas.**

In the kitchen, consider any exposed area within 25 feet of the vomit contaminated.

**1.** Everyone within the area should immediately wash their hands.

**2.** Discard any exposed or uncovered food.

**3.** Cover the vomit immediately with paper towels or disposable cloths and soak with bleach or disinfectant.

**4.** Dispose of soiled paper towels in a plastic garbage bag. Do not reuse towels, sponges or cloths that were used for cleanup.

**5.** Clean the area with soap and water.

**6.** Disinfect with a 5000 ppm bleach solution with at least five minutes of contact time and have the area well ventilated.

**7.** Rinse the area with clear water.

**TIP:**

Do not vacuum, shake, or otherwise disturb vomit on carpets, curtains, or other soft surfaces. Follow the special procedures for these surfaces outlined in this booklet.

Fran the food service worker serves wholesome food to help keep kids healthy. She knows how important it is to wash her hands after

using the bathroom and to wear gloves while serving food.

She needs training to know that she should stop handling food at the first sign she feels sick. She needs to know that she should not prepare any food if she has been sick to her stomach or has had diarrhea for at least three days afterward. She also needs to be able to stay home until she is completely well. Her medical provider or the health department may have specific guidance about returning to work.

Sue the school secretary knows everything that is going on in school. Sue sees the daily attendance list and knows when absences are up.

She is the first to receive a call if someone gets sick at school. She often fills in to help a sick child when the school nurse or clinic assistant is not there. She knows how to contact the nurse, health department, and school board. She has templates of letters ready so she can send them out quickly to keep the staff, school board, and parents informed. She needs the proper training and tools so she can respond to questions.

TIP:

If there is any question whether the illness has been transmitted by food, check with the health department for special procedures.

TIP:

**Mixing bleach solution for food contact areas:**

To make a 200 ppm bleach solution for sanitizing food contact surfaces, mix $^1/_3$ cup bleach with five gallons of water.

**8.** Sanitize all food contact surfaces within 25 feet by wiping down food contact surfaces with a 200 ppm bleach solution ($^1/_3$ cup standard household [5.25%] bleach mixed with five gallons of water) or other sanitizer safe for food contact surfaces and approved against norovirus.

## Cleaning "High-Touch" Areas

"High-touch" areas are places that people touch often with their hands. During a norovirus outbreak, take extra care to clean high-touch areas. These include tables, chairs, lockers, counters, door handles, push plates, railings, elevator buttons, telephones, and all areas of the bathrooms. These areas need frequent routine cleaning, especially during an outbreak of norovirus.

Use disposable wipes and clean only one surface per wipe. Sanitize high-touch areas of bathrooms often. Be sure to keep soap and paper towel dispensers filled.

## Start Process To Inform Staff And Community

One person, often the school nurse or principal, should serve as the contact person for the school. This person ensures that information is correct and consistent.

As soon as you suspect an outbreak, contact the local or state health department. Any unusual increase in the number of students and staff absent due to vomiting or diarrheal illness indicates a possible outbreak.

Work with the health department to gather any information needed. This information might include:

- number of ill students and staff
- symptoms and dates of illness onset
- total number of students and staff in the school
- absentee rates from previous years
- list of any special events such as field trips in the two weeks before the illness
- school lunch menus for the last two weeks

News of an outbreak will travel through the school and into the community quickly. Right away, the contact person should make sure that all staff members have the facts they need in order to keep rumors from spreading. Remind sick staff members to go home and stay home until they are free of symptoms for at least three days (there is a contagious period even after symptoms are gone). If the staff member received medical care, their medical provider or the health department may give guidance for returning to work. Always stress ways to prevent further spread of the illness, especially through hand washing.

Prepare a letter to go home with students or start the school-wide notification process.

**TIP:**

Clean all "High-Touch" areas often during any outbreak of illness.

**TIP:**

Good policies and procedures help with prevention. Having a policy in place before you need it makes the response simpler.

**TIP:**

Remember, one of the best ways to prevent the spread of disease is to carefully wash your hands often with soap and water.

Ted is a classroom teacher. He works all day with the students in his class and usually knows when "something is going around." When a child gets sick and vomits, Ted and other teachers are often the first ones to respond. With classes full of students, teachers need to know how to help one student while keeping others safe.

Teachers need training and a kit with gloves and paper towels. They need to know to remove all students from the area and to call for someone trained in cleanup.

Jennie the paraeducator is everywhere, helping in the classroom, on the playground, on field trips, and in the lunchroom to make sure the day runs smoothly. Jennie seems to keep an eye on all the kids at once and sees right away if a child is sick.

Jennie needs to have a supply kit nearby and training to know what to do when a student throws up at school.

Include in the letter a reminder that anyone with vomiting or diarrhea symptoms should stay home until the symptoms are completely gone. If indicated, also include in the letter any changes in the food service and restrictions on food sharing until the illness is contained.

## Conclusion

When a student vomits at school, there is no way to know immediately if it is an isolated incident or the beginning of a norovirus outbreak. Stomach illnesses spread quickly in a school environment. When a student or an adult vomits or has diarrhea at school, small particles can spread widely, contaminate multiple surfaces, and infect others.

To be safe, treat any incident as if it is norovirus and follow the proper procedures listed in this booklet.

To prevent the illness from spreading, school personnel need to know what to do to protect themselves and the students in their care.

Personnel responsible for cleanup should be able to follow the procedures outlined in this booklet. Staff members who are ill need to be able to stay home until all symptoms of illness are gone.

Ask your local NEA affiliate president, UniServ director or building representative for help in advocating for workplace policies, contract language, education and training. Effective organizing strategies include building coalitions,

TIP:

Have templates of letters for parents ready so they can go out quickly.

TIP:

**Remember Megan, the student who threw up?**

After you had her cover her mouth, you directed the other students away and carefully covered the vomit with paper towels without touching it. What should you do now?

- Call to have the trained custodian come and clean up.
- Wash your hands thoroughly and have all the students wash their hands.
- Notify the school office.

**Organize!** Health and safety issues such as preventing the spread of norovirus affect everyone in a school, making it an ideal organizing issue for a local association.

forming health and safety committees, and negotiating contract language and district policies.

Or contact the NEA Health Information Network for materials, training, and technical assistance.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*U.S. Food and Drug Administration*

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*U.S. Food and Drug Administration*

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*U.S. Food and Drug Administration*

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*U.S. Food and Drug Administration*

Production Coordinator: Jamila Boddie

Author: Margaret Miller Volpe

Illustrations: Dominic Cappello

Graphic Design: Rachel Boothe

Copy Editor: Cindy Brockwell

NEAHIN
NATIONAL EDUCATION ASSOCIATION
HEALTH INFORMATION NETWORK

**Phone:** 202.822.7570
**Fax:** 202.822.7775
www.neahin.org

## Resources

Organizing around health and safety issues
*www.neahin.org/organizing*

**The U.S. Environmental Protection Agency** provides a list of registered disinfectants on its website:
*www.epa.gov/oppad001/list_g_norovirus.pdf.*

**National School Boards Association 703.838.6722**
*www.nsba.org/MainMenu/SchoolHealth/SelectedNSBA Publications/FoodSafety.aspx*

**CDC Norovirus fact sheets**
Includes Q&A, fact sheet, and special information for food handlers.
*www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus.htm*

**U.S. Food and Drug Administration Retail Food Protection: Employee Health and Personal Hygiene Handbook.**
*www.fda.gov/Food/FoodSafety/RetailFoodProtection/Industry-andRegulatoryAssistanceandTrainingResources/ucm113827.htm*

**Conference for Food Protection Emergency Action Plan for Retail Food Establishments:**
*www.foodprotect.org/media/guide/EmergencyActionPlanfor RetailFoodEstablishments2008.pdf*

**National Park Service, Public Health Program Norovirus - Response and Cleanup:**
*www.nps.gov/public_health/inter/info/factsheets/ fs_noro_r&c.htm*