



**COLORADO**

Department of Public  
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

## **Norovirus Information and Guidelines for Schools and Child Care Facilities** **December 11, 2014**

During the past month, the Colorado Department of Public Health and Environment (CDPHE) and local public health agencies have noted a substantial increase in reports of gastrointestinal illness (diarrhea and vomiting) outbreaks in group settings statewide, including schools and child care facilities. Norovirus is a common cause of gastrointestinal illness. This health advisory contains information about norovirus and outbreak prevention measures for schools and child care facilities.

### **About Norovirus:**

Norovirus is highly concentrated in the stool and vomitus of infected persons. It has a low infectious dose, which allows for easy person-to-person transmission through contact with the stool or vomit of an infected person. Norovirus can also spread through the air when someone vomits, causing environmental contamination. Persons who are ill with norovirus can spread the infection to others and/or contaminate surfaces such as tables, doorknobs, faucet handles, toys, keyboards, or phones. Other people who touch those surfaces and then touch their mouth can get infected. Illness can also spread through food and beverages if an infected person prepares these items while symptomatic.

Norovirus can cause prolonged outbreaks in schools and child care facilities due to the low infectious dose, close contact among students and staff, and potential for decreased hand hygiene among students due to age and suboptimal handwashing practices. Norovirus outbreaks can occur at any time of the year, but are most common in the late fall, winter, and early spring.

Typical symptoms of norovirus infection include vomiting and non-bloody diarrhea. Other potential symptoms include low-grade fever, headache, muscle aches, nausea, abdominal cramps, chills, and malaise. When someone is exposed to the virus, it typically takes between 12 to 48 hours (average of 24-30 hours) before symptoms begin. Symptoms usually last for 24 to 72 hours, although the virus can remain in the stool of ill people for at least several days after symptoms resolve. People are most contagious from the moment they begin feeling ill *until at least 48 hours after recovery*. Dehydration is the most common complication, especially among the young and elderly, and, in some cases, may require intravenous fluids.

### **Responding to Norovirus Outbreaks at your Facility:**

Please contact CDPHE or your local public health agency if your facility is experiencing large numbers of gastrointestinal illness in multiple classrooms or multiple grades. Public Health will work with you to evaluate the specific situation and implement control measures. The following measures are often recommended to help control outbreaks:

- **EXCLUDE ill students:** If your facility is experiencing an outbreak, students who are ill with either vomiting or diarrhea should be excluded until they have been symptom-free for at least 48 hours.
- **EXCLUDE ill staff:** If your facility is experiencing an outbreak, ill staff, especially food handlers, should be excluded from work until at least 48 hours after diarrhea and vomiting have ceased, even if they are feeling well sooner.



- **School closure is generally not indicated or required during norovirus outbreaks:** Consult with public health if your facility is considering closing.
- **Cleaning and disinfecting:**
  - Norovirus is very hardy and can persist in the environment. To effectively disinfect a facility, use a 10% solution of household chlorine bleach (one cup of bleach per nine cups of water) or an EPA-approved disinfectant that is effective against norovirus. A list of EPA-registered disinfectants is available at: [www.epa.gov/oppad001/chemregindex.htm](http://www.epa.gov/oppad001/chemregindex.htm) (this list was updated in October 2014). Ensure that the disinfectant is mixed at the proper concentration and has the proper contact time with surfaces, as indicated on the disinfectant product label or MSDS sheet.
  - Increase the frequency of disinfection of door knobs and handles, restrooms, faucets, drinking fountains, chairs, desks and tables, computers, keyboards, toys, and other commonly touched and shared items.
  - Always handle vomit and fecal material as if it contains norovirus.
    - If someone vomits or has a fecal accident in a public area, ensure people clear the area as soon as possible.
    - Ensure the person cleaning up the vomit or fecal material wears disposable gloves, a simple face mask, and disposable gown or coverall to avoid direct contact with the material.
    - Spray a disinfectant effective against norovirus onto the vomit or fecal material, cover the material with disposable towels, rags, or other absorbent material, and allow the disinfectant to contact the material for at least 10 minutes (or longer if indicated on the disinfectant labeling).
    - Place all soiled material into a trash bag and discard.
    - Apply disinfectant again in the affected area. Since widespread environmental contamination can occur with norovirus, it is advisable to disinfect all areas within 25 feet of where the vomit or fecal material was located.
    - After cleaning, be sure to discard gloves, coverall, mask, and other soiled items into the trash, and wash hands well.
  - If a vomiting incident occurs in the cafeteria, kitchen area, or other food preparation area, ensure that any food items that might have been contaminated are discarded immediately. Consult with your local public health agency on the proper disinfection methods for kitchen and food contact surfaces.
- **Hand washing:** Review the importance of hand washing with students and staff. It may be helpful to take defined hand washing breaks for students and staff to encourage frequent hand washing. Remind students and staff to thoroughly wash their hands after using the restroom, before eating, and before handling food for others. Also, remind everyone that hand washing must be done with soap and warm water, washing all surfaces of the hands for at least 20 seconds; hand sanitizer is not an acceptable substitute for washing hands, but can be used to supplement frequent hand washing.

#### For More Information or to Report an Outbreak:

- Contact your local public health agency, or CDPHE at 303-692-2700.
- Information on norovirus, including frequently asked questions: [www.cdc.gov/norovirus](http://www.cdc.gov/norovirus)
- CDPHE guidelines on the management of infectious diseases in schools and child care facilities: <https://www.colorado.gov/pacific/cdphe/infectious-disease-guidelines-schools-and-childcare-settings>



## Notify Parents/Guardians:

If your facility is experiencing an outbreak, consider sharing preventive information to parents and guardians. Here is some suggested language:

*Widespread gastrointestinal (stomach) illness has been reported in Colorado and in <insert name> county. We encourage parents and guardians to implement simple prevention measures to help stop further spread of illness in our community.*

*Symptoms of the illness include nausea, vomiting, diarrhea, stomach cramping, and sometimes low-grade fever. We believe the illness is being caused by a virus called “norovirus.” Norovirus infection is very common this time of year. Symptoms usually last about 1-3 days and can cause dehydration, which can be dangerous for children.*

*Gastrointestinal illness is easily spread from person-to-person. Ill persons shed the virus in their vomit and stool. Illness can spread when:*

- *An ill person has direct contact with others (such as a parent/guardian/caregiver helping or cleaning up after an ill person)*
- *Vomit or feces of an ill person contaminates surfaces and/or objects (such as toys, bathroom facilities, etc.), and other people touch those surfaces and objects and then touch their mouth*
- *Eating food prepared by an ill person*

*In order to reduce the spread of illness, <insert local public health agency name> has recommended the following:*

- *Keep your child(ren) home from school or child care for at least 48 hours after vomiting and/or diarrhea symptoms have stopped.*
- *Wash your hands and your child’s hands frequently, especially after using the bathroom or changing diapers, and before preparing or eating food or touching your mouth.*
- *Help your child learn how to properly wash hands.*
- *Do not share food or drinks with other people while sick or if others have been sick.*
- *Do not prepare food for others if you have vomiting or diarrhea.*
- *Immediately flush vomit or diarrhea, or dispose of it in a trash can immediately if a vomiting/diarrhea accident occurs.*
- *Make sure the areas where someone vomits or has diarrhea are kept clean and disinfected (a solution of one part bleach mixed with nine parts of water is effective against norovirus).*
- *Immediately remove and wash (in hot water) any clothing or linens soiled by vomit or diarrhea.*

*If your child becomes ill with vomiting or diarrhea while at school or child care, a parent or guardian will need to pick the child up as soon as possible. Your child should not return to school or child care until 48 hours after their symptoms have stopped, even if they just have one episode of diarrhea or vomiting.*

