



## Introduction

Viral gastrointestinal illness (VGE) outbreaks frequently occur in schools, child care centers, colleges, and universities. Noroviruses are common causes of VGE, and can spread easily in schools due to the close quarters, shared spaces, and shared surfaces. Norovirus outbreaks on school and university campuses have even led to campus closures.

## Mode of Transmission

Noroviruses have a very low infectious dose and is very easily transmitted. Typically transmission occurs when infected people spread the virus to others through direct contact, such as by caring for them while ill or sharing food or eating utensils with them. Contaminated food, water, and surfaces can also cause outbreaks. The virus can also be aerosolized when a person vomits and particles land on and contaminate surfaces or enter a person's mouth.

## Length of Infectiousness

Norovirus is shed for at least 48 to 72 hours after symptom resolution although studies have demonstrated the presence of virus in stool for several weeks after infection.

## Treatment

For most people, VGE is a self-limited illness of a few days duration. In severe cases, dehydration and electrolyte imbalance can be potentially fatal, especially in the elderly.

## Prevention

Many custodial programs do not use bleach solutions for routine cleaning. In cases of VGE, CCPH and CDC recommend the use of a bleach solution as described in the ['Clean-up and Disinfection for Norovirus \("Stomach Bug"\)'](#) directions, or an [EPA approved product](#). Share information with school administration and custodial staff about switching cleaning solutions to reduce illness transmission during VGE outbreaks.

## Immunity

Individuals can get norovirus illness multiple times in their life as there are many different types of noroviruses. Infection with one type of norovirus may not protect against other types. It is possible to develop immunity to specific types, but it is not known exactly how long immunity lasts. This may explain why many people of all ages get infected during norovirus outbreaks.

## When to report to Clark County Public Health

Report a VGE outbreak to CCPH by completing and faxing the **VGE Report Form** to the Communicable Disease Program at **564.397.8080**.

CCPH defines a gastrointestinal outbreak in a school setting as:

- ≥10% of student/staff population with similar symptoms of vomiting and/or diarrhea, **OR**
- 2 or more students in the same classroom with vomiting and/or diarrhea within 24 hours.

## Incubation Period

12-48 hours

## Symptoms

- Nausea
- Vomiting
- Abdominal cramps
- Watery, non-bloody diarrhea

## Duration of Illness

Usually 12-60 hours

## Diagnosis

The best way to detect norovirus is in stool specimens collected during a person's acute illness (within 48 to 72 hours after symptom onset).

However, testing rarely occurs with GI outbreaks in schools. Norovirus is typically identified by common symptoms and epidemiologic data.



## VGE Information for School Health Personnel

### We recommend schools have policies and procedures in place for:

- Excluding staff and students ill with VGE.
- Implementing a staff and parent notification system following an exposure or outbreak.
- Tracking the number of student and staff absences due to similar symptoms or cause.
- Enhanced cleaning during VGE outbreaks to reduce transmission using products effective against VGE.

### What to do when you have VGE in your school:

- Provide education to staff, students, and volunteers on the recognition of norovirus symptoms, proper hand washing technique and modes of transmission.
- Exclude ill students and staff with vomiting and/or diarrhea from school until 24 hours after symptoms have resolved.
- If VGE is in a single classroom, begin conducting surveillance (line listing) for additional cases and fax page 2 of the VGE Report Form to CCPH when new cases are identified.
- If a confirmed case attended school during their infectious period, distribute a notification letter and FAQ sheet to potentially exposed persons (e.g. classroom or whole school). Letter and FAQ templates are available at: <https://www.clark.wa.gov/public-health/schools-child-day-cares>.
  - If you have questions regarding appropriate audiences for distribution of letters and FAQ's, please call CCPH at 564.397-8182.
- Increase the frequency of routine cleaning. Review the Washington Department of Health [Cleaning for Health in the Classroom Best Practices for Teachers](#).
- Direct custodial staff to wear masks when cleaning areas that are contaminated by feces or vomitus, as splattering or aerosol materials may contain infectious virus particles.
- Ensure hand washing stations are supplied with soap, paper towels, and hands free trash bins.
- Clean toys daily, and immediately after being soiled with vomitus or stool (see cleaning directions above).

### During an outbreak:

- Avoid having school functions that serve "family-style" or "self-serve" meals.
- CCPH will work with the school to determine appropriate response and control based on CDC, Washington Department of Health and/or Health Officer recommendations. Control measures will be determined on a case-by-case basis in response to that particular outbreak. Control measures should be continued until the outbreak is declared over.

### After cases or outbreaks occur:

- Evaluate your school's response.
- Develop action plans to address identified areas of concern regarding school's readiness and response.
- Don't hesitate to use CCPH as a resource for reviewing outbreak response or supporting training needs.