



New Jersey Department of Health Communicable Disease Service

Prevention of Norovirus Outbreaks in School and Daycare Settings

Norovirus, formerly called Norwalk-like virus, is a virus that causes acute gastroenteritis in humans. The most common symptoms of norovirus are diarrhea, vomiting, and abdominal pain. Fever, chills, headache, body aches and fatigue may also be present. Symptom onset is usually abrupt, which is very characteristic of norovirus. Norovirus is very contagious, and is spread through contaminated food or water, by contact with an infected person, or by contamination of environmental surfaces. The virus has an incubation period (time period from when you are exposed to the virus to when you become ill) of 24-48 hours. Infected individuals are symptomatic for 1-2 days but may shed the virus for up to 2 weeks after recovering. Norovirus outbreaks are common in schools and daycare facilities.

While schools and daycare can never fully prevent outbreaks of illnesses, prompt and appropriate prevention actions can help reduce the number of students who become ill. These steps are outlined below.

Outbreak detection and reporting:

Daycare facilities and schools are required to report all confirmed or suspected outbreaks of acute gastroenteritis, including norovirus to their local health department as soon as possible. An outbreak is defined as an occurrence of disease greater than would otherwise be expected at a particular time and place.

It is reasonable to initiate an investigation, implement prevention and control measures, and contact the local health department in the following situations:

- Two or more students in a classroom or group of students with onset of vomiting and or diarrhea on the same day.
- A doubling in the number of students absent due to a vomiting and/or diarrhea over that of normal for a particular time of year is indicative of an outbreak.

Maintain a daily log of students and teachers absent due to GI illness. Include name, age, gender, classroom, symptoms, date of onset and duration. Indicate if a specimen was sent to the laboratory, lab result, and hospitalization.

Although the number of cases might not meet the above definition of an outbreak, it is prudent to contact the local health department with any unusual cluster of gastrointestinal illness. A directory of local health departments can be found at the following website (www.localhealth.nj.gov). If there is difficulty reaching your local health

department, please contact NJDOH at 609-826-5964 (after hours emergency line 609-392-2020).

Exclusion:

- Children and staff who are experiencing symptoms of norovirus should stay home from school or daycare until **24-48 hours**¹ after symptoms are resolved.
- Staff involved in food preparation should be restricted from preparing food for **48-72 hours**¹ after symptoms have resolved. The staff may perform other duties not associated with food preparation 24 hours after symptoms have stopped.

Hand hygiene:

Good hand hygiene is the best way to prevent transmission of norovirus.

- Hands should be washed with warm water and soap for 15-20 seconds.
- Children should be taught good hand hygiene practices and should wash their hands after using the bathroom (or diaper change) and before eating.
- Staff, especially staff responsible for caring for diapered children, should wash their hands after every diaper change.
- During outbreaks, washing hands with soap and water is preferable to using alcohol-based hand sanitizers, which are not effective at killing norovirus.

Housekeeping:

Norovirus is highly contagious. The virus can live on surfaces for up to 12 days and has a very low infective dose (<100 viral particles). Proper environmental control measures are essential to preventing infection.

If a vomit or fecal spillage occurs, the area should be sanitized with an Environmental Protection Agency approved disinfectant (<http://www.epa.gov/oppad001/chemregindex.htm>) or a freshly prepared sodium hypochlorite solution (bleach). Mix 1/4 cup bleach with 1-gallon water. For heavily soiled surfaces, use 1 2/3 cup bleach to one gallon of water. **Allow the solution to be in contact with the surface for 10-20 minutes** or until it has air dried. Materials that may be put in children's mouths (e.g., toys) should be air dried after disinfection. For porous surfaces such as upholstered furniture, carpets or clothing, clean visible debris with an absorbent, double-layer material. Steam clean or wash the contaminated surface at 158° F for 5 minutes or 212° F for 1 minute. Custodial staff should wear masks and gloves when cleaning areas contaminated by feces or vomitus. Throw away all disposable materials in sealed bags.

Bathrooms and other communal spaces should be cleaned more frequently during suspected norovirus outbreaks. Frequently touched surfaces, such as door handles, telephones, and computer mice, should be disinfected with an approved product.

Food:

Norovirus is often spread through contaminated food or water. Facilities serving or sharing food should take these extra precautions:

- Restrict sharing of foods brought from private homes.
- Restrict students' sharing of any communal food items in classrooms. Instead, the teacher should hand out items to be shared after washing his/her hands.
- Stop using self-service food bars. Do not let children serve themselves in any manner which might promote direct hand contact with shared foods.

¹ Exclusion time of 24-48 hours is on a case by case basis after consultation with the local health department.

More information can be found at:

Centers for Disease Control (CDC) website:

<http://www.cdc.gov/norovirus/index.html>

NJDOH website:

<http://nj.gov/health/cd/norovirus/index.shtml>

<http://www.state.nj.us/health/cd/handwashing.shtml>

National Education Association Healthy Futures:

<http://healthyfutures.nea.org/?s=stomach+bug+book>