

Residential Facilities**Title: GI Illness Advisory**

Noroviruses are increasingly being recognized as the leading causes of foodborne disease in the United States, and have been linked to outbreaks of intestinal illness on cruise ships and in communities, restaurants, camps, schools, institutions, and families. This fact sheet provides information about the virus and includes preventive measures to reduce or eliminate further illness. Nursing homes, assisted living, and other community residences are particularly vulnerable to outbreaks of such illness. The exact source is often hard to pinpoint and the virus once introduced tends to spread rapidly facilitated by a short incubation of 2 days, low infectious dose, vulnerable patients, and plenty of vectors such as the hands of health care and foodservice workers, and environmental contamination. In nursing care facilities Norovirus illness can be introduced from ill food handlers, from ill health care workers involved in patient care, or from any of a number of visitors to the facility.

What is norovirus infection?

Norovirus infection is an intestinal illness. The virus was first identified in 1972 after an outbreak of gastrointestinal illness in Norwalk, Ohio. Later, other viruses with similar features were described and called Norwalk-like viruses. These have since been classified as members of the calicivirus family. Noroviruses are found worldwide. Humans are the only known hosts. The viruses are passed in the stool of infected persons.

Signs and Symptoms:

The symptoms of Norovirus illness usually include sudden onset of nausea, vomiting, diarrhea, and abdominal cramping. Sometimes people additionally have a low-grade fever, chills, headache, muscle aches, and a general sense of tiredness. The illness often begins suddenly, and the infected person may feel very sick. The illness is usually brief, with symptoms lasting only about 1 or 2 days. Norovirus disease is usually not serious, although people may feel very sick and vomit many times a day. However, sometimes people are unable to drink enough liquids to replace the liquids they lost because of vomiting and diarrhea. These persons can become dehydrated and may need special medical attention. Persons working in nursing care facilities should pay special attention to residents who have symptoms as described above. This virus is very contagious and can spread rapidly throughout such environments.

How do people get norovirus infection?

People get norovirus infection by swallowing food or water that has been contaminated with stool from an infected person. Outbreaks in the United States are often linked to eating raw shellfish, especially oysters and clams. Shellfish become contaminated via stool from sick food handlers or from raw sewage dumped overboard by recreational and/or commercial boaters. Contaminated water, ice, eggs, salad ingredients, and ready-to-eat foods are other sources of infection.

Why is norovirus infection important for food handlers?

Food handlers infected with norovirus can unintentionally contaminate the food and/or beverage they prepare and serve to the public. Many of those eating the contaminated food or drinking the contaminated beverage can become ill, causing an outbreak. Even if the food handler no longer feels ill, they can still carry the virus in their stool and potentially infect others. Therefore, the RI Department of Health requires that food handlers not work for 2 days after they feel better.

Who is at risk for norovirus infection?

Anyone can get norovirus infection, but it may be more common in adults and older children.

What are the signs and symptoms of norovirus infection?

- Nausea
- Vomiting
- Diarrhea
- Stomach cramps
- Severe illness or hospitalization is uncommon. Infected persons usually recover in 2 to 3 days without serious or long-term health effects.

How soon after exposure do symptoms appear?

Symptoms usually appear in 1 to 2 days after swallowing contaminated food or water.

How is norovirus diagnosed and what is the treatment for Norovirus infection?

Currently, 27 state public health laboratories, including RI, have the capability to test stool samples of infected individuals for norovirus by reverse transcriptase polymerase chain reaction (RT-PCR).

Treatment:

When people are ill with vomiting and diarrhea, they should be assured of appropriate access to fluids to prevent dehydration. Dehydration among the elderly can be common, and it is the most serious health effect that can result from Norovirus infection. By drinking oral re-hydration fluids (ORF), juice, or water, people can reduce their chance of becoming dehydrated.

How can norovirus be prevented?

- Wash hands with soap and warm water after toilet visits, changing a diaper, blowing your nose, sneezing or coughing, caring for a sick person, playing with a pet, and also before preparing or eating food (For additional information, refer to “Things to Do to Prevent Infectious Diseases” at URL: <http://www.health.ri.gov/disease/communicable/thingstodo.php>)
- Dispose of sewage in a sanitary manner
- Thoroughly clean and disinfect contaminated surfaces immediately after an episode of illness by using a bleach-based household cleaner. Wash and wipe down the toilet area, faucets and similar hard surfaces with a virucidal agent or a mixture of one tablespoon of bleach to 3 cups of water. If cleaning up vomit or stool, use two tablespoons of bleach to 1cup water.
- Cook all shellfish thoroughly before eating
- Wash raw vegetables and fruits before eating
- No bare-hand contact of ready-to-eat food by food handlers
- Food handlers with symptoms of Norovirus illness should not prepare or touch food

Residential Setting - Infection Control Measures/Recommendations:

Early detection and strict enforcement of control measures are effective in aborting outbreaks. Instruct ALL staff immediately of control measures. Depending on the severity of the outbreak, the following options should be considered:

- Close facility to routine visitors and, as needed, new admissions;
- Implement enteric barrier precautions and isolation for those symptomatic (glove, gown, mask for splashes, hand washing and sanitizers);
- If there is a need to transport to hospital, hospital staff is notified of need for enteric precautions;
- Frequently wash hands, especially after toilet visits and before eating or preparing food;
- Assure that disposable gloves or utensils are used in the kitchen and that there is no bare hand contact of ready-to-eat foods;
- Conduct intensive staff education re: hand washing and other infection control measures;
- Detect and exclude symptomatic staff (including food service staff) from work immediately. Ill staff should not return to work until 24 to 72 hours after symptoms have stopped;
- Double-bag and discard with disposable cloths, gloves, aprons, etc or cover toilet before flushing any vomitus and/or stool in the toilet and make sure that the surrounding area is kept clean;
- Sanitize environment including floors and surfaces daily;
- Thoroughly clean and disinfect contaminated surfaces contaminated by body fluids immediately using a virucidal sanitizer. Use separate disposable cloths for cleaning and then disinfection;
- Immediately remove and wash clothing or linens that may be contaminated with virus after an episode of illness (use hot water and soap).

Reporting: Report illness from a facility if two or more residents exhibit illness compatible with suspect Norovirus. Report by phone immediately to the RI Department of Health at:

Office of Communicable Diseases at **222-2577** or after hour's **272-5952**, and

Office of Food Protection at **222-2750**

Where can I get more information on noroviruses?

The Centers for Disease Control at URL: http://www.cdc.gov/ncidod/dhqp/id_norovirusFS.html