

What is norovirus?

Norovirus is a very contagious virus that causes diarrhea and vomiting in people worldwide. The disease is the most common cause of acute gastroenteritis in the United States. It is also the most common cause of foodborne disease outbreaks in the United States.

Who is at risk for norovirus?

People of all ages are at risk for norovirus.

What are the symptoms of norovirus?

The symptoms of norovirus illness usually include abrupt onset of nausea, vomiting, diarrhea and abdominal cramps. Low-grade fever, chills, headache, muscle aches and a general sense of tiredness are also common. Symptoms usually last about one to three days, but may last longer in young children, elderly people, and hospitalized patients.

How soon do symptoms appear?

Symptoms of norovirus illness usually being about 24 to 48 hours after exposure to the virus, but may appear as early as 12 hours after exposure.

How is norovirus spread?

Norovirus is very contagious and can spread easily from person to person. Both stool and vomit are infectious. People can become infected with the virus in several ways, including eating food or drinking liquids that have been contaminated with norovirus, touching contaminated surfaces or objects and then placing their hands in their mouths, or having direct contact with another person infected with norovirus.

When and for how long is a person able to spread the disease?

People can spread the disease before they start to feel ill until several days after symptoms stop. Some people may be contagious for three weeks or more after recovery.

How is a person diagnosed?

A laboratory can identify norovirus in stool specimens.

What is the treatment?

Currently, there is no specific medication to treat norovirus and no vaccine to prevent infection. Dehydration is the most common complication that may require medical care. Treatment usually includes replacing fluids lost from vomiting and diarrhea and correcting electrolyte disturbances with oral rehydration fluids. Severe dehydration may require intravenous rehydration solutions.

Does past infection make a person immune?

No. A person can get infected many times throughout his or her lifetime. There are many different kinds of noroviruses, and being infected with one type of norovirus may not protect you against infection with other types.

Should children or others be excluded from child care, school, work or other activities if they have norovirus?

A child should be excluded from child care if he/she has:

- Vomited two or more times within the previous 24 hours, unless the vomiting is determined to be caused by a noninfectious condition and the child is not in danger of dehydration
- Diarrhea, if stool is not contained in the diaper or if diarrhea frequency exceeds two or more stools above normal for that child
- A fever or is unable to participate and the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group

A child or an adult should be excluded from school or work until 48 hours have passed after diarrhea and/or vomiting have resolved.

Food handlers should be excluded until 48 hours have passed since they last experienced diarrhea and/or vomiting. If a food handler did not have symptoms, he or she should be excluded until 48 hours after diagnosis or written medical documentation is provided stating that the employee is free of infection. In addition, because the virus can continue to be present in the stool for weeks after a person feels better, strict hand washing after using the bathroom and before handling food items is important in preventing the spread of norovirus.

What can be done to prevent the spread of norovirus?

- Frequently wash your hands, especially after toilet visits and changing diapers, and before eating or preparing food.
- Carefully wash fruits and vegetables. Cook oysters and other shellfish thoroughly before eating.
- Thoroughly clean and disinfect contaminated surfaces immediately after an episode of illness by using a household cleaner containing bleach.
- Immediately remove and wash clothing or linens that may be contaminated with virus after an episode of illness (use hot water and soap).
- Flush or discard any vomit and/or stool in the toilet and make sure that the surrounding area is kept clean.
- Do not prepare food for others or provide healthcare while you are sick.

Additional Information:

Additional information is available at www.ndhealth.gov/disease or by calling the North Dakota Department of Health at 800.472.2180.

Outbreaks of this disease are reportable. As mandated by North Dakota law, any outbreak of this disease shall be reported to the North Dakota Department of Health.

Resources:

1. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 132-151.
2. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Norovirus and Other Human Calicivirus Infections]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 573-574.
3. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. Norovirus Infection. American Public Health Association. 2015: 436-438.
4. Centers for Disease Control and Prevention. (2016). Norovirus. www.cdc.gov/norovirus/index.html.
5. North Dakota Administrative Code. (2016). 33-33-04-28.9-11. www.legis.nd.gov/information/acdata/pdf/33-33-04.pdf.