
Norovirus Fact Sheet

What are noroviruses? Noroviruses are a group of viruses that cause gastroenteritis (GAS-tro-en-ter-I-tis) in people. Gastroenteritis is an inflammation of the lining of the stomach and intestines.

Viruses are very different from bacteria and parasites, some of which can cause illnesses similar to norovirus infection. Like all viral infections, noroviruses are not affected by treatment with antibiotics and cannot grow outside of a person's body.

What are the symptoms of Norovirus?

The symptoms of norovirus illness usually include nausea, vomiting, diarrhea, and some stomach cramping. Sometimes people also 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. In most people the illness is self-limiting, with symptoms lasting for about 1 or 2 days. In general, diarrhea is more common in children and vomiting is more common in adults.

What is the name of the illness caused by noroviruses? Illness caused by norovirus infection has several names:

- stomach flu – norovirus is *not* related to the flu (or influenza), which is a respiratory illness caused by influenza virus;
- viral gastroenteritis – this is the most common name for illness caused by norovirus. Gastroenteritis refers to an inflammation of the stomach and intestines;
- acute gastroenteritis;
- non-bacterial gastroenteritis;
- food poisoning (although there are other causes of food poisoning); and calicivirus infection.

How serious is norovirus disease?

People may feel very sick and vomit many times a day, but most people get better within 1 or 2

days, and they have no long-term health effects related to their illness. 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 (lose too much water from their body) and may need special medical attention. During norovirus infection, this problem with dehydration is usually only seen among the very young, the elderly, and people with other illness.

How do people become infected with noroviruses?

Noroviruses are found in the stool and vomit of infected people. People can become infected with the virus in several ways:

- by eating food or drinking liquids that are contaminated with norovirus,
- by touching surfaces or objects contaminated with norovirus, and then placing their hand in their mouth, and
- by having direct contact with another person who is infected (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill).

Persons working in day-care centers or nursing homes should pay special attention to children or residents who have norovirus illness. This virus is very contagious and can spread rapidly throughout such environments.

When do symptoms appear? Symptoms of norovirus illness usually begin about 24 to 48 hours after ingestion of the virus, but they can appear as early as 12 hours after exposure.

Are noroviruses contagious? Noroviruses are very contagious and can spread easily from person to person. Both stool and vomit are infectious. Particular care should be taken with young children in diapers who may have diarrhea.

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How long are people contagious? People infected with norovirus are contagious from the moment they begin feeling ill to at least 3 days after recovery. The virus may be shed (discharged from the body through vomit or stool) for 2 weeks or more after recovery, although it is unclear whether the virus shed during this time is infectious. Therefore, it is particularly important for people to use good handwashing and other hygienic practices after they have recently recovered from norovirus illness.

Who gets norovirus? Anyone can become infected with noroviruses. There are many different strains of norovirus, which makes it difficult for a person's body to develop long-lasting immunity. Therefore, norovirus illness can recur throughout a person's lifetime. In addition, because of differences in genetic factors, some people are more likely to become infected with noroviruses and develop more severe illness than others.

Is there a treatment for norovirus infection? There is no vaccine to prevent norovirus infection. And there is no drug to treat people who are infected with the virus. Antibiotic drugs will not help if you have norovirus infection. This is because they fight against bacteria not viruses. Norovirus illness is usually brief in people who are otherwise healthy. But, the infection can cause severe vomiting and diarrhea. This can lead to dehydration (loss of too much water from the body). During norovirus infection, young children, the elderly, and people with other illnesses are most at risk for dehydration. Symptoms of dehydration in adults and children include a decrease in urination, a dry mouth and throat, and feeling dizzy when standing up. A dehydrated child may also cry with few or no tears and be unusually sleepy or fussy. Dehydration can lead to other serious problems. And severe dehydration may require hospitalization for treatment with intravenous

(IV) fluids. Thus it is important to prevent dehydration during norovirus illness. The best way to protect against dehydration is to drink plenty of liquids. The most helpful fluids for this purpose are oral rehydration fluids (ORF)*. Other drinks that do not contain caffeine or alcohol can also help with mild dehydration. However, these drinks may not replace important nutrients and minerals lost due to vomiting and diarrhea.

Severe dehydration can be serious. If you think you or someone you are caring for is severely dehydrated, contact your healthcare provider.

* Following is a list of some oral rehydration fluids commonly available in U.S. food and drug stores: Infalyte, Kao Lectrolyte, Naturalyte, Oralyte, and Pedialyte. If you are unsure about which product to use or how to use these pre-mixed fluids, contact your healthcare provider.

Can norovirus infections be prevented? You can decrease your chance of coming in contact with noroviruses by following these preventive steps:

- Frequently wash your hands, especially after toilet visits and changing diapers and before eating or preparing food.
- Carefully wash fruits and vegetables, and steam oysters before eating them.
- Thoroughly clean and disinfect contaminated surfaces immediately after an episode of illness by using a bleach-based household cleaner.
- 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 vomitus and/or stool in the toilet and make sure that the surrounding area is kept clean.
- Persons who are infected with norovirus should not prepare food while they have symptoms and for at least 48 HOURS after they recover from their illness. Food that may have been contaminated by an ill person should be disposed of properly.