

# PUBLIC HEALTH REFERENCE SHEET

## Norovirus



|                                      |   |
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| <b>Name</b>                          | Norovirus   |
| <b>Reservoir &amp; Transmission</b>  | Humans<br>Fecal-oral route, including direct person-to-person contact and indirect transmission through contaminated food, water, or environmental surfaces |
| <b>Incubation Period</b>             | 10–50 hours   |
| <b>Common Symptoms</b>               | Nausea, vomiting, diarrhea, abdominal pain, headache, myalgia, malaise, low-grade fever   |
| <b>Gold Standard Diagnostic Test</b> | PCR   |
| <b>Risk Groups</b>                   | Older adults (>65 years), young children (<5 years), and immunocompromised individuals  |
| <b>Geographic Significance</b>       | Worldwide   |

### What is norovirus?

Norovirus is highly contagious. They are a group of non-enveloped, single stranded RNA viruses that cause acute gastroenteritis.

### What are the signs and symptoms of norovirus?

Typical symptoms of norovirus include acute onset of vomiting; watery, non-bloody diarrhea with abdominal cramps; and nausea. Some people may have low-grade fever, headaches, and myalgia. Symptoms of gastroenteritis usually develop around 12 to 48 hours after being exposed to norovirus. Gastroenteritis usually lasts 24 to 72 hours. Individuals usually recover completely without any serious long-term problems. However, norovirus can be serious, especially for young children, older adults, and the immunocompromised.

Some individuals who get a norovirus infection may not have symptoms, but they may still shed the virus in their stool.

### How is norovirus transmitted?

Primarily, noroviruses are transmitted through close personal contact with an infected person, or through the fecal-oral route when a person consumes contaminated food or water. A person with norovirus infection can shed billions of norovirus particles. But it only takes as few as 18 viral particles to infect another person.

### How serious is norovirus?

Most individuals get better within 1 to 3 days and have no long-term health effects related to their illness. Sometimes, however, those who are unable to drink enough liquids and become dehydrated and may need medical treatment.

### Who is at risk for norovirus?

Anyone can get norovirus. 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. Norovirus can be serious, especially for young children, older adults, and the immunocompromised.

### How is norovirus treated?

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Treatment is supportive care, primarily for dehydration. Sports drinks and other drinks without caffeine or alcohol can help with mild dehydration. But these drinks may not replace important nutrients and minerals. There is no specific medication to treat individuals with norovirus illness. Norovirus infection cannot be treated with antibiotics because it is a viral (not a bacterial) infection.

### How can norovirus be prevented?

The most important precaution is careful handwashing after each toilet visit and before preparing and/or eating food. Careful food handling and cleaning of surfaces and materials contaminated with the virus are also important precautions. Wash clothing and linens that may be contaminated with vomit or stool thoroughly. Occupations that involve food preparation, providing healthcare or childcare, or in school settings should be restricted for at least 2 days after symptoms stop. Many local and state health departments require that food workers and food preparers with norovirus illness not work until at least 48 hours after symptoms stop.

### What are some public health considerations?

- Document the source of infection, if known.
- Document if the case patient works in, lives in, or attends a high transmission setting such as food handling, daycare, school, group living, health care, training center, or ship.

### References:

Defense Health Agency. 2022. *Armed Forces Reportable Medical Events Guidelines and Case Definitions*.

<https://www.health.mil/Reference-Center/Publications/2022/11/01/Armed-Forces-Reportable-Medical-Events-Guidelines>

“Norovirus,” Centers for Disease Control and Prevention (CDC), last reviewed February 23, 2023. <https://www.cdc.gov/norovirus/>

Heymann, David L. ed. 2022. *Control of Communicable Diseases Manual*. 21st Edition. Washington DC: APHA Press.

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