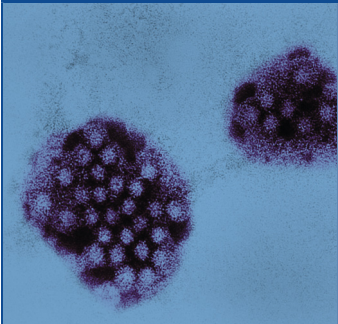


# Norovirus

## Overview



Norovirus is a highly contagious virus that can cause the sudden onset of nausea, vomiting and diarrhea.<sup>1</sup> Norovirus infection is often called by other names such as stomach flu, stomach bug, food poisoning or viral gastroenteritis.<sup>1</sup> Most norovirus outbreaks in the U.S. happen from November to April.<sup>2</sup> While both norovirus infection and influenza are prevalent in winter, norovirus does not cause the flu, which is a severe respiratory infection caused by influenza viruses. Norovirus infection is predictable in that there is not a lot of variation in symptoms and duration from person to person. The average person will get norovirus five times in their life.<sup>3</sup>












Norovirus causes illness and outbreaks in many settings. Between 2011 and 2021, over 22,000 norovirus outbreaks were reported to the CDC's National Outbreak Reporting System.<sup>4</sup> Of those, most outbreaks (58%) were in healthcare settings, especially in long-term care facilities.<sup>4</sup> While noroviruses are the cause for most of the diarrheal outbreaks on cruise ships, cruise ships account for only 1% of reported norovirus outbreaks.<sup>4</sup> In the U.S., norovirus is responsible for 19–21 million cases of gastroenteritis each year. This results in 109,000 hospitalizations and 900 deaths annually.<sup>2</sup>

## About the Pathogen & Infection Control Measures

<b>Infectious Agent (Pathogen)</b>	<b>Agent Type:</b> Non-enveloped virus <b>Taxonomy:</b> ▶ <b>Family:</b> <i>Caliciviridae</i>	▶ <b>Genus:</b> Norovirus ▶ <b>Species:</b> Norwalk virus <b>Synonym(s):</b> Stomach flu, Stomach bug, Food poisoning <b>Characteristics:</b> Can survive some disinfectants making it hard to get rid of. <sup>5</sup>
<b>Infectious Characteristics Definitions:</b> ▶ Infectious dose—number of organisms necessary to cause disease. ▶ Incubation period—the time from exposure to infection with symptoms. ▶ Period of communicability—time when a pathogen can be transmitted from one person to another. ▶ Mortality rate—the number of deaths due to a disease divided by the total population.	<b>Risk factors for severe infection:</b> <sup>6</sup>  <b>Infectious dose</b> <sup>5</sup>  <b>Incubation period:</b> <sup>1</sup>  <b>Period of communicability:</b> <sup>7</sup>  <b>Signs &amp; symptoms:</b> <sup>1</sup>  <b>Duration of illness:</b> <sup>1</sup>  <b>Severity of illness and Mortality Rate:</b> <sup>6</sup>	Individuals in healthcare facilities and other institutional settings (e.g., day-care centers, schools, etc.) are particularly at-risk. Young children, the elderly, and people with other medical illnesses are more likely to experience severe or prolonged infection.  Fewer than 100 viral particles  12–48 hours  Onset of symptoms up to 2 weeks or more after recovery.  ▶ Nausea and vomiting ▶ Diarrhea ▶ Stomach Pain ▶ Fever ▶ Headache ▶ Body aches  1–3 days  Norovirus can cause dehydration which may result in serious problems. Severe dehydration may require hospitalization for treatment. Infection rarely leads to death.
<b>Mode(s) of Transmission</b> <sup>8</sup> How the Infection Spreads	Contact: Direct person-to-person contact or indirectly through contaminated food or water via the fecal-oral route. Norovirus also is spread through contaminated surfaces or objects and aerosols of vomitus.	
<b>Survival on Surfaces</b> <sup>5</sup>	Days to weeks	
<b>Immunization/ Prophylaxis/Treatment</b> <sup>9</sup>	Illness is self-limited with symptoms resolving after a few days. There is no specific medicine for norovirus and treatment is supportive (e.g., hydration). Antibiotics will not help treat norovirus infections because they fight bacteria, not viruses.	
<b>Infection Control Measures</b>	<b>General Measures for All Spaces</b> (commercial buildings, K-12 schools, healthcare): <sup>7</sup> ▶ <b>Hand hygiene:</b> Frequently wash hands often with soap and water for 15–20 seconds, especially after using the restroom. ▶ <b>Food Handling:</b> Avoid handling or preparing food for others when sick and for 48 hours after symptoms stop. ▶ <b>Cleaning:</b> After someone vomits or has diarrhea, immediately clean and disinfect the entire area.	<b>Healthcare-Specific Measures:</b> <sup>10,11</sup> ▶ <b>Isolation Precautions:</b> Place patient in single patient room if possible and with separate toilet or commode. Use Standard + Contact Precautions for diapered or incontinent persons for the duration of illness or to control institutional outbreaks. Continue isolation precautions for 48hr or until symptoms resolve. ▶ <b>PPE:</b> Don gown and gloves in accordance with Contact and Standard Precautions. Wear a mask if cleaning surfaces heavily contaminated with feces or vomitus as the virus can become aerosolized. ▶ <b>Patient Transport:</b> Minimize patient movements within a facility during norovirus outbreaks. Assist patient with hand hygiene prior to transport. ▶ <b>Linens:</b> Use Standard Precautions to handle soiled linens carefully, without agitating them, to avoid dispersal of virus. ▶ <b>Waste management:</b> Per routine
<b>Cleaning &amp; Disinfection</b>	Norovirus can survive some disinfectants making it hard to get rid of. <sup>5</sup> Perform routine cleaning and disinfection of frequently touched surfaces and objects with a focus on restrooms <sup>10</sup> using an EPA-approved product with a label claim for norovirus or use bleach per EPA List G. <sup>7</sup>	

# Clorox Product Recommendations

The following CloroxPro cleaner-disinfectants can be used to effectively eliminate Norovirus on environmental surfaces and equipment.

Products for use against Norovirus		EPA Reg. No.	Norovirus contact time
<b>CloroxPro™ Clorox EcoClean™ Disinfecting Cleaner</b> Item No. 60213 9/32 oz. Spray Item No. 60094 4/128 oz. Refill		67619-45	30 seconds
<b>Clorox Healthcare® Fuzion® Cleaner Disinfectant</b> Item No. 31478 9/32 oz. Spray		67619-30	1 minute
<b>Clorox Healthcare® Bleach Germicidal Wipes</b> Item No. 30577 6" x 5" Wipes Canister 6/150 ct. Item No. 35309 6.75" x 9" Wipes Canister 6/70 ct. Item No. 32621 6.75" x 9" Wipes Softpack 9/100 ct. Item No. 31424 6.75" x 9" Individual Wipes 6/50 ct. Item No. 30358 12" x 12" Wipes Bucket 2/110 ct. Item No. 30359 12" x 12" Wipes Bucket Refill 2/110 ct.		67619-12	1 minute
<b>Clorox Healthcare® Bleach Germicidal Cleaner</b> Item No. 68970 6/32 oz. Spray Item No. 68978 4/128 oz. Refill		56392-7	1 minute
<b>Dispatch® Wipes</b> Item No. 69150 Wipes Canister 8/150 ct.		56392-8	1 minute
<b>CloroxPro® Clorox® Clean-Up® Disinfectant Cleaner with Bleach</b> Item No. 35417 9/32 oz. Spray Item No. 35420 4/128 oz. Refill		67619-17	1 minute
<b>CloroxPro® Clorox® Germicidal Bleach</b> Item No. 30966 3/121 oz. Bottle		67619-32	5 minutes
<b>Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant Wipes</b> Item No. 30824 6.75" x 9" Wipes Canister 6/95 ct. Item No. 30825 6.75" x 5.75" Wipes Canister 6/155 ct. Item No. 30826 12" x 11" Wipes Bucket 2/185 ct. Item No. 30827 12" x 11" Wipes Bucket Refill 2/185 ct.		67619-25	2 minutes
<b>Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant</b> Item No. 30828 9/32 oz. Spray Item No. 30829 4/128 oz. Refill		67619-24	1 minute
<b>CloroxPro® Clorox® Disinfecting Bio Stain &amp; Odor Remover</b> Item No. 31903 9/32 oz. Spray Item No. 31910 4/128 oz. Refill		67619-33	5 minutes
<b>CloroxPro® Clorox® Disinfecting Spray</b> Item No. 38504 12/19 oz.		67619-21	10 minutes

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For product resources and implementation tools, contact your Clorox sales representative, call 800-492-9729 or visit [www.CloroxPro.com](http://www.CloroxPro.com)

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