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## Norovirus

### **What is norovirus?**

Noroviruses are a group of viruses that cause the “stomach flu,” or gastrointestinal (stomach and digestive) illness. Norovirus infection occurs occasionally in only one or a few people or it can be responsible for large outbreaks, such as in long-term care facilities.

### **Who gets norovirus?**

Norovirus infects people of all ages worldwide. It may, however, be more common in adults and older children.

### **How does someone get norovirus?**

Norovirus is spread from person to person via feces, but some evidence suggests that the virus is spread through the air during vomiting. Good hand washing is the most important way to prevent the transmission of norovirus. Outbreaks have been linked to sick food handlers, ill health care workers, cases in facilities such as nursing homes spreading to other residents, contaminated shellfish, and water contaminated with sewage.

### **What are the symptoms of norovirus?**

Serious illness rarely occurs. The most common symptoms include nausea, vomiting, and stomach cramps. Diarrhea may occasionally accompany vomiting. Fever is usually low grade or absent. Infected people generally recover in 1-2 days.

### **How soon after exposure do symptoms appear?**

The incubation period for norovirus is 1-2 days.

### **How is norovirus infection diagnosed?**

Laboratory diagnosis is difficult but there are tests that can be performed in the New Hampshire Public Health Lab in situations where there are multiple cases. Diagnosis is often based on the combination of symptoms and the short time of the illness.

### **What is the treatment for norovirus infection?**

No specific treatment is available. People who become dehydrated might need to be rehydrated by taking liquids by mouth. Occasionally patients may need to be hospitalized to receive intravenous fluids.

### **How can norovirus be prevented?**

While there is no vaccine for norovirus, there are precautions people should take:

- Wash hands with soap and warm water after using the bathroom and after changing diapers
- Wash hands with soap and warm water before preparing or eating any food
- Cook all shellfish thoroughly before eating
- Wash raw vegetables before eating
- Dispose of sewage in a sanitary manner
- Food handlers with symptoms of Norovirus should not prepare or touch food
- Health care workers should stay home if they have symptoms of norovirus.



# Norovirus Illness: Key Facts

## Norovirus—the stomach bug

Norovirus is a highly contagious virus. Norovirus infection causes gastroenteritis (inflammation of the stomach and intestines). This leads to diarrhea, vomiting, and stomach pain.

Norovirus illness is often called by other names, such as food poisoning and stomach flu. Noroviruses can cause food poisoning, as can other germs and chemicals. Norovirus illness is not related to the flu (influenza). Though they share some of the same symptoms, the flu is a respiratory illness caused by influenza virus.



### Anyone can get norovirus illness

- Norovirus is the most common cause of acute gastroenteritis in the U.S.
- Each year, norovirus causes 19 to 21 million cases of acute gastroenteritis in the U.S.
- There are many types of norovirus and you can get it more than once.

### Norovirus illness can be serious

- Norovirus illness can make you feel extremely sick with diarrhea and vomiting many times a day.
- Some people may get severely dehydrated, especially young children, the elderly, and people with other illnesses.
- Each year, norovirus causes 56,000 to 71,000 hospitalizations and 570 to 800 deaths, mostly in young children and the elderly.

### Norovirus spreads very easily and quickly

- It only takes a very small amount of norovirus particles (fewer than 100) to make you sick.
- People with norovirus illness shed billions of virus particles in their stool and vomit and can easily infect others.
- You are contagious from the moment you begin feeling sick and for the first few days after you recover.
- Norovirus can spread quickly in enclosed places like daycare centers, nursing homes, schools, and cruise ships.
- Norovirus can stay on objects and surfaces and still infect people for days or weeks.
- Norovirus can survive some disinfectants, making it hard to get rid of.

### Norovirus can spread in many ways

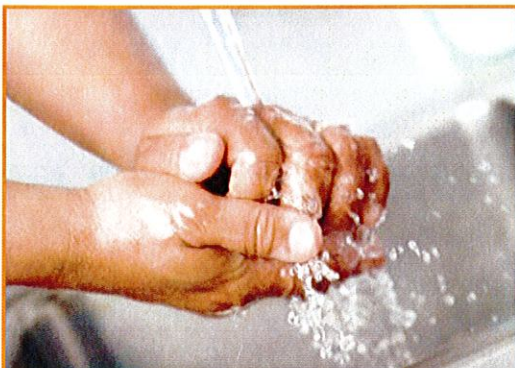
Norovirus can spread to others by—

- having direct contact with an infected person, for example, touching an infected person while caring for them,
- eating food or drinking liquids that are contaminated with norovirus,
- touching objects that have norovirus on them and then putting your fingers in your mouth, for example, touching a countertop that has vomit droplets on it and then putting your fingers in your mouth and
- sharing utensils or cups with people who are infected with norovirus.

### There's no vaccine to prevent norovirus infection and no drug to treat it

- Antibiotics will not help with norovirus illness because antibiotics do not work on viruses.
- When you have norovirus illness, drink plenty of liquids to replace fluid loss and prevent dehydration.
- If you or someone you are caring for is dehydrated, call a doctor.





### What is the Right Way to Wash Your Hands?

1. Wet your hands with clean, running water (warm or cold) and apply soap.
  2. Rub your hands together to make a lather and scrub them well; be sure to scrub the backs of your hands, between your fingers, and under your nails.
  3. Continue rubbing your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
  4. Rinse your hands well under running water.
  5. Dry your hands using a clean towel or air dry them.
- See Handwashing: Clean Hands Saves Lives ([www.cdc.gov/handwashing/](http://www.cdc.gov/handwashing/))

## 5 Tips to Prevent Norovirus From Spreading

### 1. Practice proper hand hygiene

Always wash your hands carefully with soap and water—

- after using the toilet and changing diapers, and
- before eating, preparing, or handling food.

Alcohol-based hand sanitizers can be used in addition to hand washing. But, they should not be used as a substitute for washing with soap and water.

### 2. Wash fruits and vegetables and cook seafood thoroughly

Carefully wash fruits and vegetables before preparing and eating them. Cook oysters and other shellfish thoroughly before eating them.

Be aware that noroviruses are relatively resistant. They can survive temperatures as high as 140°F and quick steaming processes that are often used for cooking shellfish.

Food that might be contaminated with norovirus should be thrown out.

Keep sick infants and children out of areas where food is being handled and prepared.

### 3. When you are sick, do not prepare food or care for others

You should not prepare food for others or provide healthcare while you are sick and for at least 2 to 3 days after you recover. This also applies to sick workers in schools, daycares, and other places where they may expose people to norovirus.

### 4. Clean and disinfect contaminated surfaces

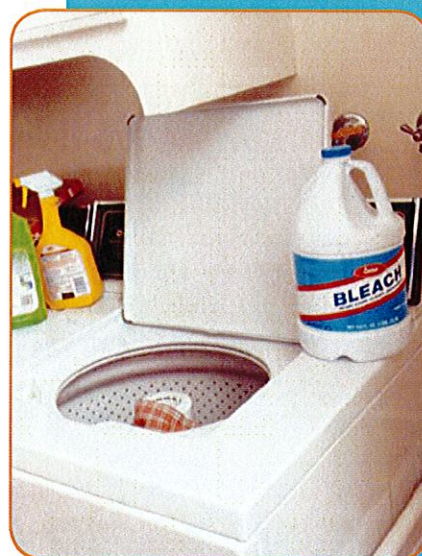
After throwing up or having diarrhea, immediately clean and disinfect contaminated surfaces. Use a chlorine bleach solution with a concentration of 1000–5000 ppm (5–25 tablespoons of household bleach [5.25%] per gallon of water) or other disinfectant registered as effective against norovirus by the Environmental Protection Agency (EPA).

### 5. Wash laundry thoroughly

Immediately remove and wash clothes or linens that may be contaminated with vomit or stool (feces).

You should—

- handle soiled items carefully without agitating them,
- wear rubber or disposable gloves while handling soiled items and wash your hands after, and wash the items with detergent at the maximum available cycle length then machine dry them.



Visit CDC's Norovirus Web site at [www.cdc.gov/norovirus](http://www.cdc.gov/norovirus) for more information.





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## Symptoms

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### **Español:** [Síntomas](#)

#### Prevent Dehydration

Drink plenty of liquids to replace fluids that are lost from throwing up and diarrhea.

Sports drinks and other drinks without caffeine or alcohol can help with mild dehydration. But, these drinks may not replace important nutrients and minerals. Oral rehydration fluids that you can get over the counter are most helpful for mild dehydration.

If you think you or someone you are caring for is severely dehydrated, call a doctor.

Norovirus causes inflammation of the stomach or intestines or both. This is called acute gastroenteritis.

The most common symptoms—

- diarrhea
- throwing up
- nausea
- stomach pain

Other symptoms—

- fever
- headache
- body aches

A person usually develops symptoms 12 to 48 hours after being exposed to norovirus. Most people with norovirus illness get better within 1 to 3 days.

If you have norovirus illness, you can feel extremely ill and throw up or have diarrhea many times a day. This can lead to dehydration, especially in young children, older adults, and people with other illnesses.

Symptoms of dehydration—

- decrease in urination
- dry mouth and throat
- feeling dizzy when standing up

Children who are dehydrated may cry with few or no tears and be unusually sleepy or fussy.

Learn more about norovirus

- [Transmission](#)
- [Prevention](#)
- [Treatment](#)