

# Viral Gastroenteritis Caused by Norovirus



## What is Viral Gastroenteritis?

Viral gastroenteritis is an infection caused by viruses. One of these viruses is called *Norovirus*. Noroviruses have been linked to outbreaks of gastrointestinal illness in residential communities, schools, institutions, and child care centers. Residents and attendees of these types of facilities are especially vulnerable to outbreaks of such illness. Often, the exact source is hard to identify and, once the virus is introduced, it spreads rapidly.

## How is Norovirus spread?

Norovirus is spread primarily by touching the mouth with contaminated hands. In most facilities, Norovirus is spread when ill people contaminate their hands with stool or vomit- containing particles of the virus. Norovirus can also be spread by touching contaminated objects or surfaces, having skin-to-skin or hand-to-hand contact with an infected person or by breathing in airborne viruses after an ill person vomits. Noroviruses are very contagious because they are present in very high amounts in the stool and vomit of ill persons. It only takes a few particles of the virus to cause illness in a susceptible person.

## What are the signs and symptoms of Norovirus infection?

- Nausea
- Vomiting
- Diarrhea
- Stomach cramps

Affected people usually recover within 2-3 days and severe illness requiring hospitalization is rare.

## How is Norovirus controlled?

- ➔ ALL residents, attendees, staff, volunteers, and visitors should wash their hands frequently and ALWAYS:
  - After using the toilet or assisting someone with toileting, including diaper changes
  - Before and after preparing food
  - Before and after caring for someone who is ill
  - After touching contaminated objects, such as telephones, doorknobs, side rails, counter and table tops, arms or chairs, walkers, canes.
- ➔ Additionally, all persons should wear gloves when expecting contact with ANY body fluid such as vomit and stool. Assume the body fluids are contaminated.
- ➔ Wear a mask when cleaning, or in contact with, visibly soiled surfaces, objects and ill people.
- ➔ Place soiled linens in a plastic bag before sending them to the laundry.
- ➔ Wash soiled linen in hot water and dry at the hottest setting possible.
- ➔ Use a freshly prepared bleach solution to disinfect contaminated surfaces:

**Use a 1:10 dilution after cleaning surfaces soiled by blood, feces & vomitus:**  
2 Tbsp. Bleach in 1 cup water, OR  
1 2/3 cup bleach in 1 gallon water

**Use a 1:100 dilution for disinfecting commonly touched surfaces**  
1/2 tsp. Bleach in 1 cup water, OR  
1 1/2 Tbsp bleach in 1 gallon water

## If an outbreak of Norovirus is suspected, follow these steps:

- ➔ Contact San Mateo County Communicable Disease Control (650) 573-2346, M-F, 8 am to 5 pm, or (650) 363-4981 evenings, weekends and holidays.
- ➔ Contact your facility's licensing agency.
- ➔ Request that ill residents stay in their rooms/apartments, and visitors stay at home until they have been symptom - free for at least 48 hours. *Encourage drinking of clear liquids to prevent dehydration.*
- ➔ Limit admissions, visits and unnecessary transports in and out of facility to the extent possible while the outbreak is ongoing.
- ➔ Close group dining rooms while the outbreak is ongoing.
- ➔ Restrict group and social activities, to the extent possible, while the outbreak is ongoing.
- ➔ Send ill staff members, volunteers, and family members home.
- ➔ Request that ill staff members, volunteers and family members stay at home until they have been symptom- free for at least 48 hours.

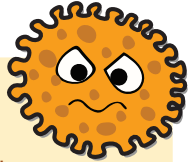
**Following these recommendations as soon as possible can reduce the amount of time your facility experiences an outbreak of Norovirus.**

For more information, please visit <http://www.smchealth.org/infectioncontrol> or contact the San Mateo County Communicable Disease Control Program at (650) 573-2346.

# Clean-up and Disinfection for Norovirus ("Stomach Bug")

**THESE DIRECTIONS SHOULD BE USED TO RESPOND TO ANY VOMITING OR DIARRHEA ACCIDENT**

**Note:** Anything that has been in contact with vomit and diarrhea should be discarded or disinfected.



## 1 Clean up

- Remove vomit or diarrhea right away!**
  - Wearing protective clothing, such as disposable gloves, apron and/or mask, wipe up vomit or diarrhea with paper towels
  - Use kitty litter, baking soda or other absorbent material on carpets and upholstery to absorb liquid; do not vacuum material: pick up using paper towels
  - Dispose of paper towel/waste in a plastic trash bag or biohazard bag
- Use soapy water to wash surfaces that contacted vomit or diarrhea and all nearby high-touch surfaces, such as door knobs and toilet handles**
- Rinse thoroughly with plain water**
- Wipe dry with paper towels**

**DON'T STOP HERE: GERMS CAN REMAIN ON SURFACES EVEN AFTER CLEANING!**

## 2 Disinfect surfaces by applying a chlorine bleach solution

Steam cleaning may be preferable for carpets and upholstery. Chlorine bleach could permanently stain these. Mixing directions are based on EPA-registered bleach product directions to be effective against norovirus. For best results, consult label directions on the bleach product you are using.

### a. Prepare a chlorine bleach solution

Make bleach solutions fresh daily; keep out of reach of children; never mix bleach solution with other cleaners.

**IF HARD SURFACES ARE AFFECTED...**  
e.g., non-porous surfaces, vinyl, ceramic tile, sealed counter-tops, sinks, toilets

**3/4 CUP OF CONCENTRATED BLEACH** + **1 GALLON WATER**

**CONCENTRATION ~3500 ppm**

**IF USING REGULAR STRENGTH BLEACH (5.25%), INCREASE THE AMOUNT OF BLEACH TO 1 CUP.**

- Leave surface wet for at least 5 minutes**
- Rinse all surfaces intended for food or mouth contact with plain water before use**

## 3 Wash your hands thoroughly with soap and water

Hand sanitizers may not be effective against norovirus.

### Facts about Norovirus

Norovirus is the leading cause of outbreaks of diarrhea and vomiting in the US, and it spreads quickly.

Norovirus spreads by contact with an infected person or by touching a contaminated surface or eating contaminated food or drinking contaminated water. Norovirus particles can even float through the air and then settle on surfaces, spreading contamination.

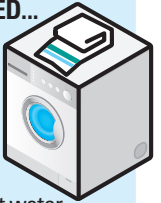
Norovirus particles are extremely small and billions of them are in the stool and vomit of infected people.

Any vomit or diarrhea may contain norovirus and should be treated as though it does.

**People can transfer norovirus to others for at least three days after being sick.**

### IF CLOTHING OR OTHER FABRICS ARE AFFECTED...

- Remove and wash all clothing or fabric that may have touched vomit or diarrhea
- Machine wash these items with detergent, hot water and **bleach** if recommended, choosing the longest wash cycle
- Machine dry



Scientific experts from the U.S. Centers for Disease Control and Prevention (CDC) helped to develop this poster. For more information on norovirus prevention, please see <http://www.cdc.gov/norovirus/preventing-infection.html>.



co.somerset.nj.us/health



neha.org



waterandhealth.org



americanchemistry.com



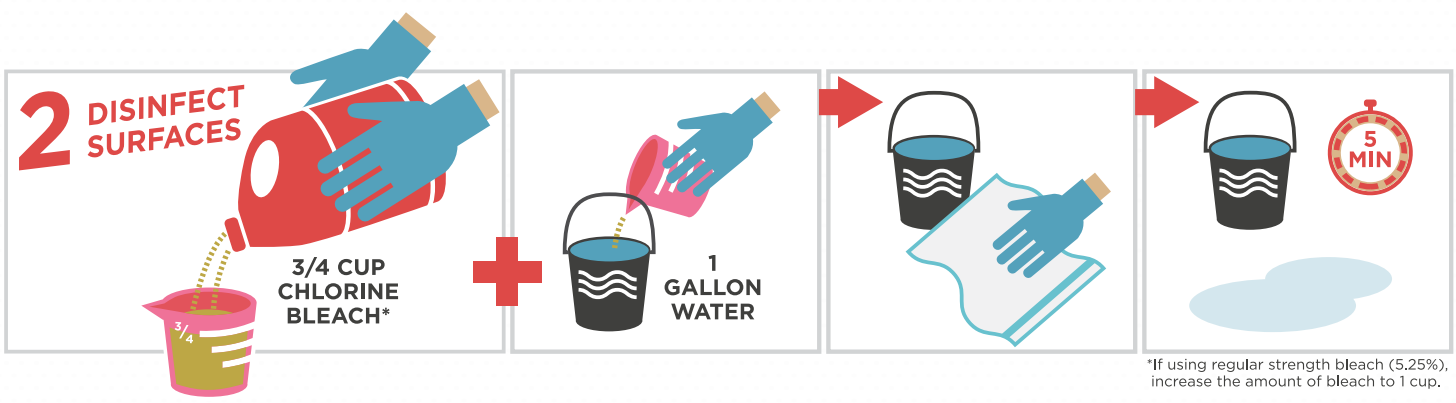
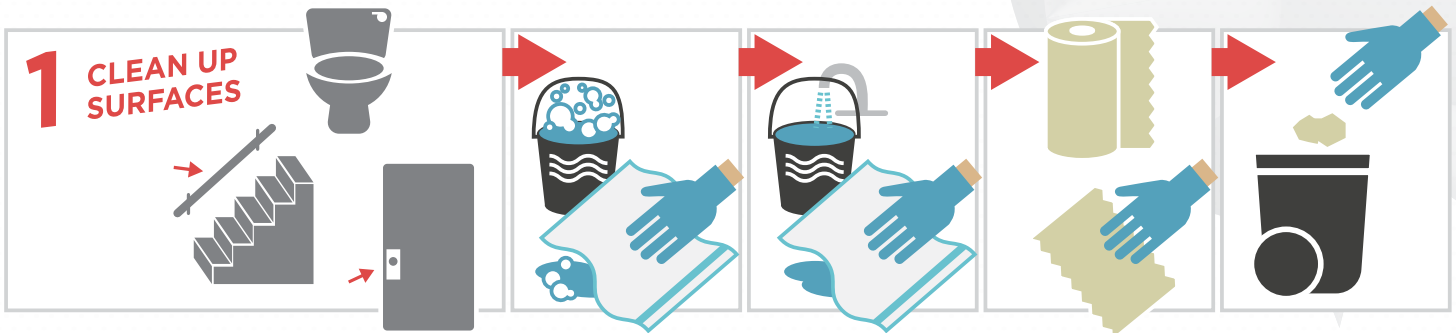
cfour.org

[disinfect-for-health.org](http://disinfect-for-health.org)

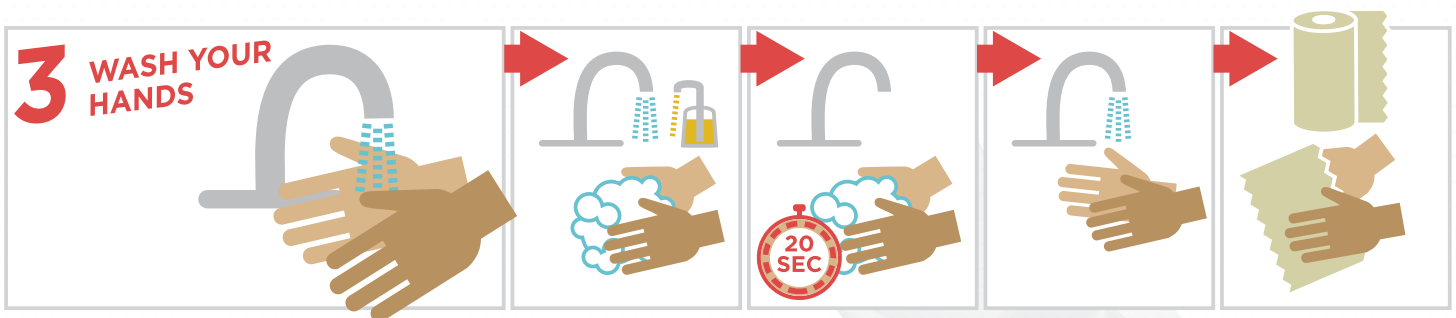
Updated March, 2015

# Help Prevent the Spread of **NOROVIRUS** A STOMACH BUG

Stop norovirus! Clean surfaces that are touched a lot.



\*If using regular strength bleach (5.25%), increase the amount of bleach to 1 cup.



Norovirus spreads by contact with an infected person or by touching a contaminated surface or eating contaminated food or drinking contaminated water.

El norovirus se propaga por el contacto con una persona infectada o al tocar una superficie contaminada o comiendo alimentos contaminados o beber agua contaminada.

Le norovirus se propage par contact avec une personne infectée, en touchant une surface contaminée, en mangeant des aliments contaminés ou en buvant de l'eau contaminée.

诺如病毒的传播途径是与感染者接触或接触污染的表面或食用被污染的食物或饮用受污染的水。

Scientific experts from the U.S. Centers for Disease Control and Prevention (CDC) helped to develop this poster. For more information on norovirus prevention, please see <http://www.cdc.gov/norovirus/preventing-infection.html>.

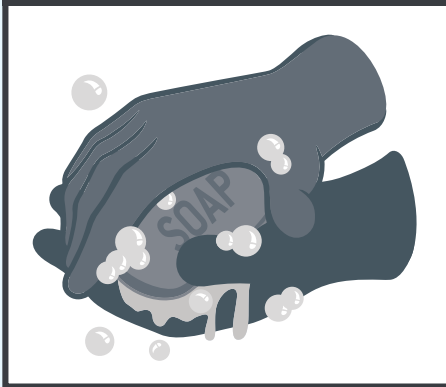


# Stop Norovirus!

Norovirus causes diarrhea and vomiting. It spreads easily from an infected person to others, especially in long-term care facilities. Elderly residents are more likely to become very sick or die from norovirus.

**Protect yourself and elderly residents from norovirus.**

## WASH YOUR HANDS



Wash your hands often with soap and water for at least 20 seconds each time and avoid touching your mouth.

## CLEAN SURFACES



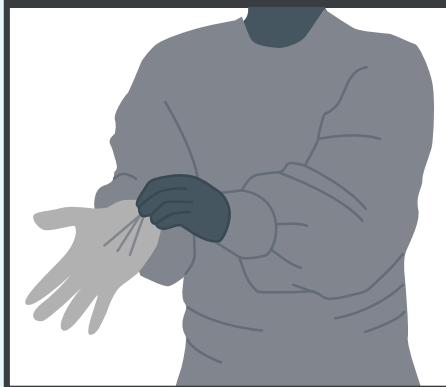
Use a bleach-based cleaner or other approved product\* to disinfect surfaces and objects that are frequently touched.

## WASH LAUNDRY



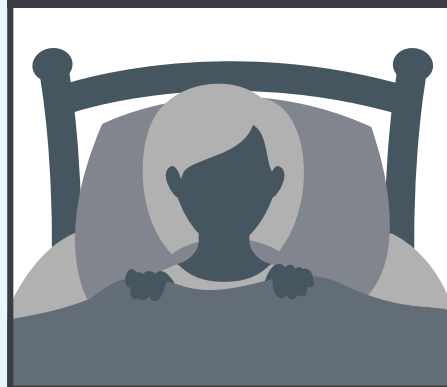
Remove and wash soiled clothes and linens immediately, then tumble dry.

## USE GOWN AND GLOVES



Use gown and gloves when touching or caring for patients to reduce exposure to vomit or fecal matter.

## STAY HOME WHEN SICK



If you're sick, stay home and don't take care of or visit people in long-term care facilities for at least 2 days after your symptoms stop.

For more information, visit [www.cdc.gov/norovirus](http://www.cdc.gov/norovirus)



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

\*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) at [http://www.epa.gov/oppad001/list\\_g\\_norovirus.pdf](http://www.epa.gov/oppad001/list_g_norovirus.pdf)