Norovirus Infection Prevention & Control

Norovirus causes a highly contagious gastrointestinal infection. It is easily spread through contact with contaminated surfaces. Any surface can become contaminated if touched by the hands of an infected individual. Surfaces in direct contact with vomit or fecal material from an infected person are of highest concern. Such areas should be disinfected immediately. See below for directions. Surfaces that are frequently touched should be cleaned and sanitized often.

- Toilet Room Surfaces
- Light Switch Plates
- High Chairs
- Kitchen Surfaces
- Phones
- Tables and Chairs
- Doorknobs
- Computer Keyboards
- Wheelchairs and Walkers
- Recreation Equipment
- Railings
- Remote Controls

**Effective Disinfectants**

- **Chlorine Bleach**: Allow 10-20 minutes of contact time and then rinse with water
  - 200 ppm (parts per million): 1 Tablespoon in 1 gallon of water. Use for stainless steel and for food/mouth contact items such as toys.
  - 1000 ppm: 1/2 cup in 1 gallon of water. Use for nonporous surfaces, tile floors, counters, sinks and toilets
  - 5000 ppm: 1 1/2 cups bleach in 1 gallon water. Use for porous surfaces like wooden floors.
- **Glutaraldehyde (0.5%)**: Mix and apply according to manufacturer’s recommendations
- **Iodine (0.8%)**: Mix and apply according to manufacturer’s recommendations.

**Disinfectants Not Effective Against Norovirus**

- **Quaternary Ammonium**: Ethanol and Anionic compounds are not effective against Norovirus

**Specific Cleaning Methods**

**Wear Gloves and Protect Your Clothing**

- **Hard Surfaces**: Disinfect surface with bleach, ensuring 10-20 minutes of contact time. If surface is in a food preparation area, make sure to rinse with water after.
- **Carpet and Upholstered Furniture**: Clean carpets using steam of at least 158°F for five minutes or 212°F for one minute. (Disinfecting with bleach may discolor carpet)
- **Linens, Clothing and Textiles**: Use gloves when handling contaminated items. Remove all visible debris from items before washing. Keep contaminated items away from uncontaminated items. Wash contaminated items in a pre-wash cycle followed by a regular wash cycle using HOT water with detergent and bleach. When bleach cannot be used, be sure to use an oxygenated detergent. Dry contaminated items can be washed separately from uncontaminated items using a temperature of 170°F or above.
- **Corrodible Surfaces or Damageable by Bleach**: Use registered products effective against Norovirus. For more information visit the following EPA website:

  [https://www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus](https://www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus)

**Proper Handling**

- Manage waster safely and dispose in a secure trash container
- Use chemicals in well-ventilated areas.
- Avoid contact between incompatible chemicals
- Prevent chemical contact with food during cleaning
- Handle contaminated material as little as possible and with minimal agitation to reduce aerosols.

**Cleaning Spills of Vomit or Feces**

- Use personal protective equipment (PPE), such as gloves, masks and gowns.
- Block-off area immediately.
- Clean up visible debris using disposable absorbent material (paper towels or other disposable cloths) and minimize aerosols.
- Discard soiled items carefully in an impervious plastic bag.
- Liberally clean and disinfect area and objects surrounding the contamination with an appropriate disinfectant effective against Norovirus. Use 5000 ppm solution of bleach to clean up vomit and feces.
- Take off gloves, gown and mask, in that order, and discard before exiting contaminated clean-up area.
- Place discarded PPE in an impervious plastic bag.
- Re-glove and transport bag to a secure trash container; do not allow the bag to come into contact with clothing.
- Always wash your hands after handling any contaminated material, trash or waste.

**Corrective Disinfection**

- Liberally clean and disinfect area and objects surrounding the contamination with an appropriate disinfectant effective against Norovirus. Use 5000 ppm solution of bleach to clean up vomit and feces.
- Take off gloves, gown and mask, in that order, and discard before exiting contaminated clean-up area.
- Place discarded PPE in an impervious plastic bag.
- Re-glove and transport bag to a secure trash container; do not allow the bag to come into contact with clothing.
- Always wash your hands after handling any contaminated material, trash or waste.
Preventing the Spread of Illness

- All food employees should practice diligent handwashing and good personal hygiene (see below for handwashing procedures).
- Use utensils or gloves to eliminate bare hand contact with ready-to-eat food. Avoid bare hand contact with ready-to-eat foods for at least two weeks after illnesses have stopped.
- Thoroughly and continuously disinfect the facility and food areas per guidelines provided at the reverse of this document.
- Exclude food employees from working with food, utensils and equipment for at least 48 hours after symptoms have stopped.
- Ensure that proper cleaning methods are utilized. Remember that Norovirus can be transmitted to aerosolized vomitus, so it is important to wear masks while cleaning.

Handwashing

Food Employees shall thoroughly wash their hands and arms with soap and warm water for at least 10-15 seconds; thoroughly rinse with clean running water and properly dry their hands and arms. Ensure handwashing signs are posted in the appropriate locations.

Employees shall wash their hands in all of the following instances:

- Immediately before engaging in food preparations, including working with non-prepackaged food, clean equipment and utensils, and unwrapped single-use food containers and utensils.
- After touching bare human body parts other than clean hands and clean, exposed portions of arms.
- After using the toilet room.
- After caring for or handling any animal allowed in a food facility.
- After coughing, sneezing, using a handkerchief or disposable tissue, using tobacco, eating or drinking.
- After handling soiled equipment or utensils.
- As often as necessary during food preparation to remove dirt and contamination.
- When changing tasks to prevent cross-contamination, and when switching between working with raw food and working with ready-to-eat foods.
- Before putting on disposable gloves to start working with food.
- Before dispensing or serving food, or handling clean tableware and serving utensils in the food service area.
- After engaging in other activities that contaminate hands.

Employee Health Guidelines

All food employees must be knowledgeable of the relationship between personal health and hygiene and food safety. Information on this topic can be found in the California Retail Food Code, Chapter 3, Article 3 – Employee Health.

The Employees are Responsible for Notifying the Person in Charge

Notify the Person in Charge (PIC) if you have been diagnosed with a Norovirus infection. Be advised that an employee is also required to report the following: Norovirus, Salmonella, Shigella, Enterohemorrhagic or shiga toxin producing E. coli, Hepatitis A or Entamoeba histolytica. Remember, you should not work with food or utensils if you are sick with gastrointestinal illnesses, especially diarrhea, abdominal cramps, fever or vomiting.

The Person in Charge is Responsible for Meeting the Following Requirements:

- **Report** to the Nevada County Environmental Health Department when a food employee is diagnosed with Norovirus: Call (530)265-1222 ext.3. Remember that the illnesses stated above must also be reported.
- **Report** to the Environmental Health Department if two or more people are sick with acute gastrointestinal illness; this includes diarrhea, either alone or with vomiting, fever or abdominal cramps. Call same number.
- **Exclude** a food employee from the food facility if diagnosed with Norovirus, Salmonella, Shigella, Enterohemorrhagic or shiga toxin producing E. coli, Hepatitis A or Entamoeba histolytica. Only the Nevada County Environmental Health Department or the Nevada County Public Health can clear an excluded employee to go back to work.
- **Restrict** a food employee from working with exposed food, clean equipment, clean linens, clean utensils and unwrapped single-service articles if food employee is suffering from symptoms of acute gastrointestinal illness or experiencing persistent coughing, sneezing or nasal discharges. Restriction can be removed by the Person in Charge when the food employee states they no longer have symptoms of illness.
Q & A: Norovirus ("Stomach Virus")

WHAT IS NOROVIRUS?
Norovirus is a virus that causes illness often referred to as "stomach flu" or viral gastroenteritis. Infection with norovirus is NOT related to influenza or "fly" virus, which causes respiratory illness.

WHAT ARE THE SYMPTOMS?
Vomiting and diarrhea are the most common symptoms. Symptoms may also include nausea, stomach cramps, fever, chills, aches, and fatigue. Children may experience more vomiting than adults.

WHEN DO SYMPTOMS START?
Symptoms typically begin 1 to 2 days after contact with the virus.

HOW LONG DO SYMPTOMS LAST?
Symptoms usually last 1 to 2 days. Symptoms may last longer in the very young, the elderly, and persons with weakened immune systems.

HOW IS NOROVIRUS DIAGNOSED?
A health care provider may diagnose norovirus infection based on your symptoms or by testing your feces.

HOW IS NOROVIRUS TREATED?
There is no specific treatment for norovirus infection. Most people get better on their own within 1-2 days. If you experience diarrhea or vomiting, drink plenty of fluids to prevent dehydration. Preventing dehydration is most important for the very young, the elderly, and persons with weakened immune systems. People with severe dehydration may require hospitalization.

IS NOROVIRUS CONTAGIOUS?
Norovirus is very contagious. It spreads easily from person to person. It takes as few as 10 virus particles to cause illness. Norovirus can live from weeks to months on surfaces.

SHOULD AN INFECTED PERSON STAY HOME?
Yes. People with norovirus should stay home until they no longer experience vomiting or diarrhea. Food handlers, health care workers, and child care workers should not return to work for at least 2 days after their last episode of diarrhea.

HOW LONG IS IT CONTAGIOUS?
People with norovirus infection are especially contagious during the first few days of their illness and for several days after they feel better.

HOW IS NOROVIRUS SPREAD?
Norovirus is found in the vomit and feces of an infected person. Norovirus can be spread through direct contact with an infected person or by eating food prepared by that person. It can also be spread by touching surfaces contaminated with the virus and then touching your mouth.

HOW CAN I AVOID NOROVIRUS?
- **Handwashing**: This is the number one way to avoid getting ill with norovirus. Talk to your household about hand washing, and teach children when and how to wash their hands. Wash your hands with liquid soap and warm water, scrub for about 20 seconds and dry hands with a clean towel.
  - After using the bathroom or changing diapers
  - Before and after preparing, serving, or eating food
  - After work, recreation, and visiting public places
  - After contact with trash or soiled laundry
  - After cleaning tasks
  - Before and after visiting a day care, nursing home, hospital, or doctor's office

- **Fast cleanup after accidents involving vomit or feces**.
  - Protect your clothes and wear gloves
  - Use a mask if available
  - Remove the vomit or feces carefully
  - Use disposable towels and a bleach and water solution
  - Disinfect the stain and the area and objects nearby
  - Wash your hands with soap and water afterwards
  - For complete details, see "NORO-Clean!" document

- **Frequent disinfection of commonly touched surfaces**: This includes kitchen and bathroom surfaces, remote controls, doorknobs, handles, sports gear, toys, tables and chairs, handrails, strollers, grooming items, phones, computer mouse and keyboards, light switches, car interiors, etc.

WHERE CAN I GET MORE INFORMATION?
More information about norovirus is available at the Centers for Disease Control and Prevention (CDC) website at [http://www.cdc.gov](http://www.cdc.gov) Search Term: norovirus