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.

**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 water. Use for stainless steel and for food/mouth contact items, such as toys.
  - **1000 ppm:** 1/3 cup in 1 gallon water. Use for nonporous surfaces, tile floors, counters, sinks and toilets.
  - **5000 ppm:** 1-2/3 cups bleach in 1 gallon water. Use for porous surfaces like wooden floors.

- **Glutaraldehyde (0.5%)**: Mix and apply according to the manufacturer’s recommendations.

- **Iodine (0.8%)**: Mix and apply according to the 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 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 that have been washed separately from uncontaminated items. Use a washing 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: http://www.epa.gov/oppad001/chemregindex.htm

**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.

**Proper Handling**

- Manage waste 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.
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 to 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.
- During food preparation, as often as necessary to remove dirt and contamination; and when changing tasks to prevent cross-contamination.
- When switching between working with raw food and working with ready-to-eat food.
- 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: 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 and vomiting.

The Person in Charge is Responsible for Meeting the Following Requirements

- **Report** to the County of San Diego - Department of Environmental Health when a food employee is diagnosed with Norovirus; call (858) 505-6814. Remember that the following illnesses must also be reported: Salmonella, Shigella, Enterohemorrhagic or shiga toxin producing E. coli, Hepatitis A, or Entamoeba histolytica.
- **Report** to the Department of Environmental Health if **two or more people** are sick with acute gastrointestinal illness; call (858) 505-6814. Acute gastrointestinal illness is diarrhea, either alone or with vomiting, fever or abdominal cramps.
- **Exclude** a food employee from the food facility if diagnosed with Salmonella, Hepatitis A, Shigella, Enterohemorrhagic or shiga toxin producing E. coli, Norovirus or Entamoeba histolytica. Only the County of San Diego’s Department of Environmental Health or the Health and Human Services Agency 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. Restrictions can be removed by the Person in Charge when the food employee states they no longer have symptoms of illness.