

Washington County Environmental Health Department

222 West Main Street, Washington, Iowa 52353

Phone # 319-653-7782 Cell # 319-461-2876

Full Facility Norovirus Cleaning for Food Establishments

- Before beginning, gather the following necessary supplies:
 - **Equipment to protect yourself (personal protective equipment):**
 - Disposable gloves
 - Disposable hair cover
 - Disposable shoe covers
 - Disposable gown
 - Disposable face mask (for use if you need to clean up any bodily fluids or when mixing cleaning/disinfectant products)
 - **Clean-Up Kit:**
 - Disposable mop (avoid wooden mops)
 - Mop bucket
 - Disposable towels and cloths
 - Trash bags/plastic bags
 - A disinfectant proven to kill Norovirus:
 - **Recommended:** Mix a chlorine bleach solution using **non-scented** bleach. (Chlorine bleach may damage some fabrics and surfaces so you should spot test areas before applying the solution.)
 - Bleach solutions should be mixed fresh just before cleaning procedures begin.
 - Water should be approximately **75°F** as hotter temperatures can decrease the effectiveness of bleach solutions.
 - For **hard surfaces (e.g. non-porous surfaces, ceramic, sealed countertops, utensils):**
 - Bleach solution should contain **1000 ppm** chlorine
 - Add **1/3 cup bleach** (5.25 - 6.15% sodium hypochlorite) to **1 gallon water**
 - For **porous surfaces (e.g. unsealed concrete or natural stone):**
 - Bleach solution should contain **5000 ppm** chlorine
 - Add **1 2/3 cups bleach** (5.25 – 6.15% sodium hypochlorite) to **1 gallon water**
 - **NOTE WHAT CONCENTRATION OF BLEACH YOU ARE USING AS THIS WILL DETERMINE THE AMOUNT OF BLEACH YOU MUST ADD TO THE MIXTURE.**
 - **If the bleach you are using is different from the concentrations listed above, see manufacturer's instructions for proper mixing directions.**
 - You can also use another disinfectant registered as effective against Norovirus by the Environmental Protection Agency (EPA) (see attached list).
 - **NOT ALL DISINFECTANTS SHOWN ON THE EPA LIST ARE APPROVED FOR USE IN FOOD FACILITIES.** Make sure that product labels contain language which states that they are approved to be used in FDA food facilities AND that the label provides adequate directions for use in these settings.
 - **QUATERNARY AMMONIA PRODUCTS ARE LESS EFFECTIVE.**¹
 - If you have questions, consult the manufacturer for more information on the approval for use of their product on food contact surfaces and/or in food service facilities.
 - Any product that will be used to sanitize food contact surfaces must be approved by FDA under 21CFR178.1010.

¹ CDC. Updated Norovirus Outbreak Management and Disease Prevention Guidelines. MMWR 2011;60(RR03)11-15.

Food Establishment Cleanup Procedure for Norovirus

- **Procedure:**

1. **WASH YOUR HANDS**

2. **PUT ON PERSONAL PROTECTIVE EQUIPMENT** (change if any item becomes soiled)

3. **CLEANING**

- a. **Begin with clean equipment and clean supplies.**

- i. Make sure that cleaning supplies are clean.
- ii. Begin with fresh cleaner in a spray bottle so that the cleaner solution doesn't become contaminated.
- iii. If you use a mop and bucket to clean the floor, the mop head should be thrown away and the mop equipment (including handles, mop bucket and wheels, etc.) should be disinfected when finished. Mop equipment can hold bacteria and viruses and can contaminate already-cleaned surfaces.
- iv. **Do not use wooden mops.** Some are not sealed and cannot be disinfected properly.

- b. **Clean**

- i. **Cleaners** (also known as **detergents**) remove dirt and germs off surfaces so they can be rinsed away with water. **Cleaning** is important as you ***must make sure dust and dirt are removed from surfaces before disinfecting or the disinfectant will not be effective.***

- c. **Rinse**

- i. Rinsing is an important part of the cleaning process.

4. **DISINFECTION**

- a. **Disinfectants** are chemical products that destroy or inactivate germs and prevent them from growing.

Disinfectants have no effect on dirt, soil, or dust so surfaces **MUST** be cleaned (as described above) before they are disinfected.

- b. **Apply disinfectant to all surfaces in the room, paying close attention to highly-touched areas**

- i. Change cloth when soiled.
- ii. Make sure to allow the disinfectant to remain in contact with the surface it is applied to for the appropriate amount of time (this is referred to as "contact time"). Use the manufacturer's guidelines to determine what the appropriate contact time is.
- iii. **Bleach solutions typically need at least 5 minutes of contact time.**
- iv. If the disinfectant dries before the appropriate contact time has passed, you should re-apply disinfectant to that area.

- c. **RINSE Food Contact Surfaces**

- i. **BEFORE USE, RINSE ALL FOOD CONTACT SURFACES WITH POTABLE WATER (WATER THAT IS SAFE FOR DRINKING) AFTER THE APPROPRIATE CONTACT TIME HAS PASSED.**
- ii. **IF SURFACES ARE NOT RINSED, LEVELS OF THE DISINFECTANT THAT ARE LEFT BEHIND MAY MAKE PEOPLE SICK.**

- d. **Air Dry**

- i. **Allow all surfaces to *air dry*.** Do NOT use towels to dry any surfaces as they may re-contaminate equipment.

- e. **Work from clean to dirty surfaces**

- i. Always begin cleaning in the least dirty areas and clean toward the known, dirtier areas.
- ii. If you are cleaning up any bodily fluids (such as vomit), you should clean from the edges of the spill toward the center.
- iii. Bathrooms should be cleaned last.

- f. **Clean from top to bottom**
 - i. Carpets and floors should be cleaned last.
 - ii. **Carpets** should be cleaned with a chemical disinfectant that is effective against Norovirus (see attached list) and then carpets should be **steam cleaned at 158°F for 5 minutes or 212°F for 1 minute** for complete inactivation.
- g. **Separate clean from dirty**
 - i. Do not place dirty items with, above, or close to clean items.
- h. **Laundering of dirty linens/clothing**
 - i. Items containing bodily fluids (such as vomit) that need to be laundered should be double-bagged.
 - ii. Handle laundry carefully and avoid shaking it as this can spread the virus.
 - iii. Launder with hot water in a Virkon™ solution or other laundry detergent effective against Norovirus (see attached list) for the longest available cycle length. Laundry should then be machine dried.

5. WHEN FINISHED, REMOVE ALL PERSONAL PROTECTIVE EQUIPMENT AND PLACE IN A TRASH BAG

6. WASH YOUR HANDS THOROUGHLY WITH SOAP AND WATER IMMEDIATELY AFTER DISPOSING OF TRASH

- a. **Hand sanitizers may not be effective against Norovirus and should not be used as a substitute for hand washing.**

7. CONTACT YOUR INSPECTOR FOR FINAL APPROVAL OF NOROCLEAN PROCEDURES BEFORE RE-OPENING TO THE PUBLIC. Contact information: Washington County Environmental Health Department

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Jason Taylor, Public Health Inspector

Resources:

“Clean Up and Disinfection for Norovirus” - Downloadable posters in English & Spanish. Disinfect for Health – Water Quality & Health Council. <http://www.disinfect-for-health.org/resources>

“Norovirus for Food Handlers” - Centers for Disease Control & Prevention (CDC) – Several resources available for download at bottom of web page. <http://www.cdc.gov/norovirus/food-handlers/work-with-food.html>

**Environmental Protection Agency's (EPA) Registered Antimicrobial Products Effective Against *Norovirus* (Norwalk-like virus)
(January 9, 2009)**

The EPA Reg# can be found on the bottle's label.

<u>EPA Reg#</u>	<u>Primary Product Name</u>
777-99	BRACE
777-105	ARC
1677-203	OXY-SEPT LDI
1677-256	EXPOR BASE CONCENTRATE
1839-79	NP 4.5 DETERGENT/ DISINFECTANT
1839-81	NP 9.0 DETERGENT/DISINFECTANT
1839-83	DETERGENT DISINFECTANT PUMP SPRAY
1839-95	NP 4.5(D&F) DETERGENT/DISINFECTANT
1839-96	NP 9.0 (D&F) DETERGENT/DISINFECTANT
1839-100	VETERINARY TYPE DISINFECTANT
1839-174	STEPAN TOWELETTE
6659-3	SPRAY NINE
6836-75	LONZA FORMULATION S-21
6836-77	LONZA FORMULATION S-18
6836-78	LONZA FORMULATION R-82
6836-136	LONZA FORMULATION S-18F
6836-139	LONZA FORMULATION R-82F
6836-140	LONZA FORMULATION S-21F
6836-152	LONZA FORMULATION DC-103
6836-266	BARDAC-205M-10
6836-278	BARDAC-205M-14.08
6836-313	LONZA DISINFECTANT WIPES
10324-58	MAQUAT 128
10324-59	MAQUAT64
10324-93	MAQUAT64PD
10324-105	MAQUAT 128PD
10324-140	MAQUAT MQ2525M-CPV
34810-35	CLEAN-CIDE READY TO USE GERMICIDAL DETERGENT
56392-7	DISPATCH HOSPITAL CLEANER DISINFECTANT WITH BLEACH
61178-1	D-125
61178-2	PUBBLIC PLACES

67619-8	CPCC ULTRA BLEACH 2
67619-12	CPPC TSUNAMI
67619-13	CPPCSTORM
67619-17	SHIELD
70060-19	ASEPTROL S10-TAB
70627-2	DISINFECTANT D.C. 100
70627-56	OXIVIRTB
70627-58	OXY-TEAM DISINFECTANT CLEANER
70627-60	OX1VIR WIPES
71654-7	VIRKON
72977-3	AXEN (R) 30
74559-1	ACCELTB
74986-4	SELECTROCIDE 2L500
74986-5	SELECTROCIDE 50
73232-1	ALPETD2
75848-1	AMERI-KLEEN WHIRLPOOL PEDICURE SPA ONE STEP DISINFECTANT
80346-1	MDF-200 MODEC DECON FORMULATION Patt A
80346-2	MDF-200 MODEC DECON FORMULATION Patt B
82972-1	VITAL OXIDE