



KNOW THE ENEMY



A quick overview of Norovirus and Cross-Contamination

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7 FAST FACTS ABOUT THE ENEMY, NOROVIRUS

- *Norovirus* causes serious inflammation of the stomach or intestines, or both. The onset is *acute*, or very rapid and often very intense.
- As few as 18 particles of the virus can cause infection.
- Known as the “cruise-ship virus,” it has caused many ships to return to port. But it is most common in assisted living facilities.
- *Norovirus* spreads easily *and* rapidly. The incubation period after ingestion is 12 to 48 hours, with an average of about 33 hours.
- People with this illness remain infectious for up to a few days after their symptoms improve.
- Standard bleach is often recommended by health departments for disinfection, but a number of safer options are also available.
- There is no drug to treat *norovirus* (gastric enteritis).

Summarized from material by



National Institute of
Allergy and
Infectious Diseases

NOROVIRUS IS A VIRAL INFECTION WITHOUT A DRUG FOR TREATMENT

▶ **19-21 million cases**

- #1 cause of vomiting or diarrhea attacks caused by contact with contaminated surfaces or direct contact with infected host.

▶ **400,000 ER visits/year**

- 1.8 million outpatient visits to doctors
- 56,000–71,000 hospitalizations
- 570-800 deaths, mostly children and elderly

Acc.V Spot Magn Det WD |-----| 1µm
30.0 kV 2.0 20000x SE 8.1

Summarized from material by



HOW NOROVIRUS IS OFTEN TRANSMITTED

- ▶ Skin-to-skin
(animate, direct contact)
 - **Hand-to-hand** – then transferred to the mouth or food where it can be ingested
- ▶ Skin-to-inanimate surface-to-skin
(transfer via a “fomite”)
 - **Contact with handles, laundry,** or other points where people share the exact same touchpoint
 - **Ingestion** of foods contaminated by hands (or naturally contaminated)

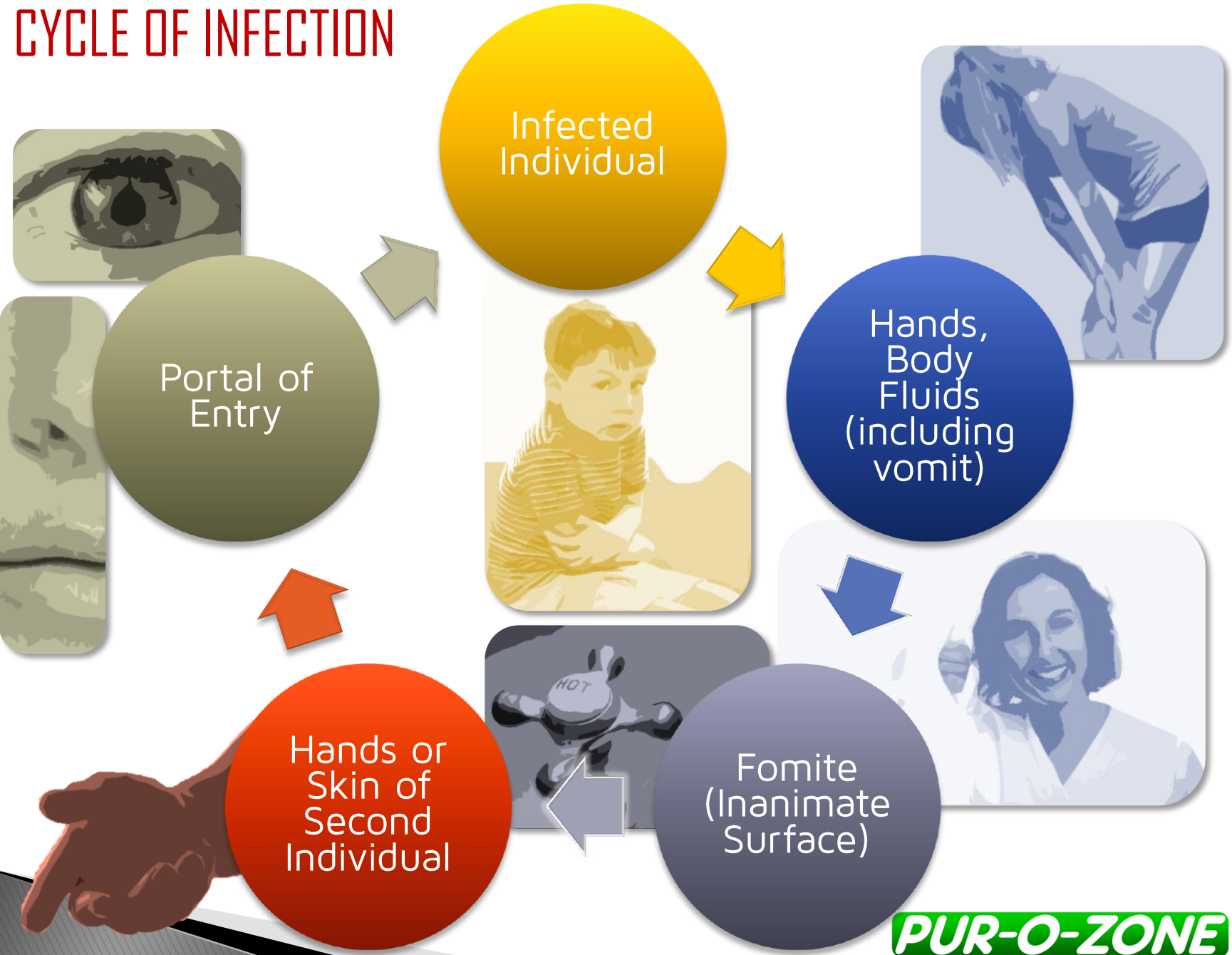
STOPPING THE CYCLE OF INFECTION

THE CROSS-CONTAMINATION CYCLE

How infection moves from one host
to a fomite and to another host

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THE CYCLE OF INFECTION

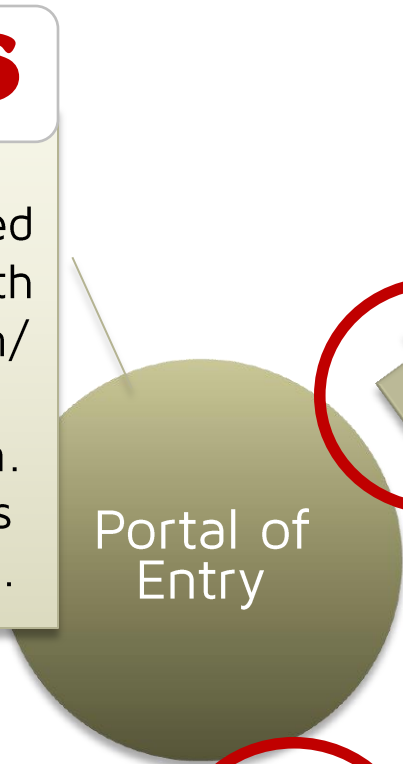


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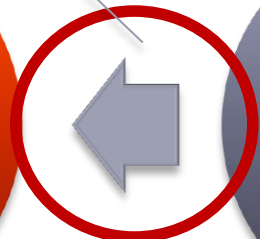
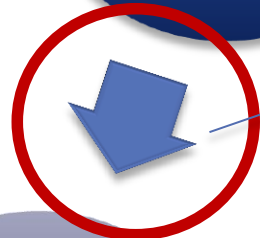
BREAKING POINTS FOR THE CYCLE OF INFECTION



Fight Established Illness with Hydration/ Medical Attention. No drugs effective.



Break Cycle with Hand Washing or Sanitizing



Break Cycle cost effectively with Cleaning & Disinfection

Break Cycle with Hand Washing or Sanitizing

COMMON FOMITES (“TOUCHPOINTS”) OF CROSS-CONTAMINATION

- ▶ Handles
- ▶ Sinks
- ▶ Toilet seats
- ▶ Bar soap
- ▶ Desks
- ▶ Phones
- ▶ Keyboards
- ▶ Pens, pencils
- ▶ Door knobs
- ▶ Wrestling mats
- ▶ Shower towels
- ▶ Shared equipment
- ▶ Exercise bikes
- ▶ Countertops
- ▶ Cafeteria tables
- ▶ Changing stations
- ▶ Toys
- ▶ Playgrounds

COMMON “PORTALS OF ENTRY” FOR VARIOUS INFECTIONS

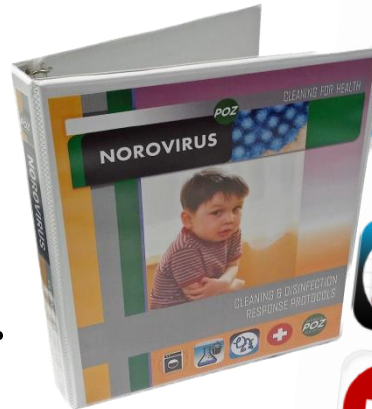


- ▶ Mouth
- ▶ Cuts
- ▶ Abrasions/scrapes
- ▶ Puncture wounds
- ▶ Eyes
- ▶ Nose
- ▶ Other “mucous membranes”
- ▶ Surgical incisions

WHEN OUTBREAKS OF VARIOUS KINDS OCCUR, BE PREPARED.

Instead, work from a plan you have on hand.

PUR-O-ZONE can provide you assistance from our TOTAL RESPONSE aids.



RESPONSIVE/PREVENTIVE DISINFECTION & CLEANING PROTOCOLS FOR REGIONAL/LOCAL OUTBREAK, INFLUENZA/NOROVIRUS-VOMITING



DEEP EXTRACTION/DISINFECTION - Start at original infection point(s) and deep-extract carpet and all surfaces that building occupants come in contact with. After cleaning to base of carpet, clean all equipment and disinfect the same area. *Perform this function at the outset.*



WIDE-NET CARPET EXTRACTION/DISINFECTION - Clean and extract all carpets using Re-Juv-Nal broad-spectrum hospital-grade disinfectant. *Re-perform this duty once or twice a week until infection potential has returned to normal.*



TOUCHPOINT CLEANING/DISINFECTION REGIMEN - Institute program of cleaning and disinfecting common touchpoints list. (Touchpoints are areas of highest common contact in building, often including desks, counters, cafeteria surfaces, keyboards, shared office equipment, door knobs and bars.) *Perform this function daily.*



DRY-FOG SANITIZE ROOMS INDIVIDUALLY - Use Sani-Guard foggers after clearing rooms of occupants. Remove all food and consumables or cover tightly. Use PPE (Personal Protective Equipment) as recommended. All room surfaces will be contacted for area-wide sanitizing. *Perform this function weekly until infection potential has returned to normal.*



RESTORATIVE-LEVEL RESTROOM DISINFECTION - Follow restoration-level restroom cleaning processes, using Re-Juv-nal for high-level, broad-spectrum control of pathogens. *Perform this function daily until infection potential has returned to normal.*



CLEAN/DISINFECT ALL EQUIPMENT/MATERIALS - Clean equipment, then use disinfection procedures for all tanks and surfaces. Launder all cleaning mops, cloths and pads at sanitizing temperature, and/or add a disinfectant. *Perform this function per cleaning event.*

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TOTAL RESPONSE™ BASIC STEPS

1



Treat Fomites Effectively

- Chemistry
- Documented Process

2



Break Cross-Contamination Cycles

- Clean/Disinfect Touchpoints (Fomites)
- Eliminate Handles on Dispensers (automatic)

3



Provide Personal Hygiene Opportunities

- Hand Sanitizer Stations and Hand Washing
- Handwashing Reminders/Posters

4



Protect Custodial Staff

- No-Touch Cleaning
- Personal Protective Gear

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Animate

Body Parts and Fluids

- Skin
- Hands
- Blood
- Draining Wounds
- Bandages

Fomites (inanimate)

Handles

- Door handles
- Dispenser handles
- Sink handles
- Flush handles
- Feminine hygiene receptacles

Common Contact Touchpoints

- Wrestling mats
- Counters
- Desks
- Toilets
- Sinks
- Keyboards
- Phones

Laundry and Warewash

- Bedding
- Gym towels
- Uniforms and personal clothing
- Table rags, mops
- Silverware
- Plates, pots and pans
- Other utensils

EXAMPLE





(Create your Own Treatment List)

4 PROTECTING THE TEAM THAT CARES FOR YOUR FACILITY

»» 1. Educate

2. Personal Protective Equipment

3. No-Touch Cleaning Systems

1	 Treat Fomites Effectively <ul style="list-style-type: none">• Chemistry• Documented Process
2	 Break Cross-Contamination Cycles <ul style="list-style-type: none">• Clean/Disinfect Touchpoints (Fomites)• Eliminate Handles on Dispensers (automatic)
3	 Provide Personal Hygiene Opportunities <ul style="list-style-type: none">• Hand Sanitizer Stations and Hand Washing• Handwashing Reminders/Posters
4	 Protect Custodial Staff <ul style="list-style-type: none">- No-Touch Cleaning- Personal Protective Gear



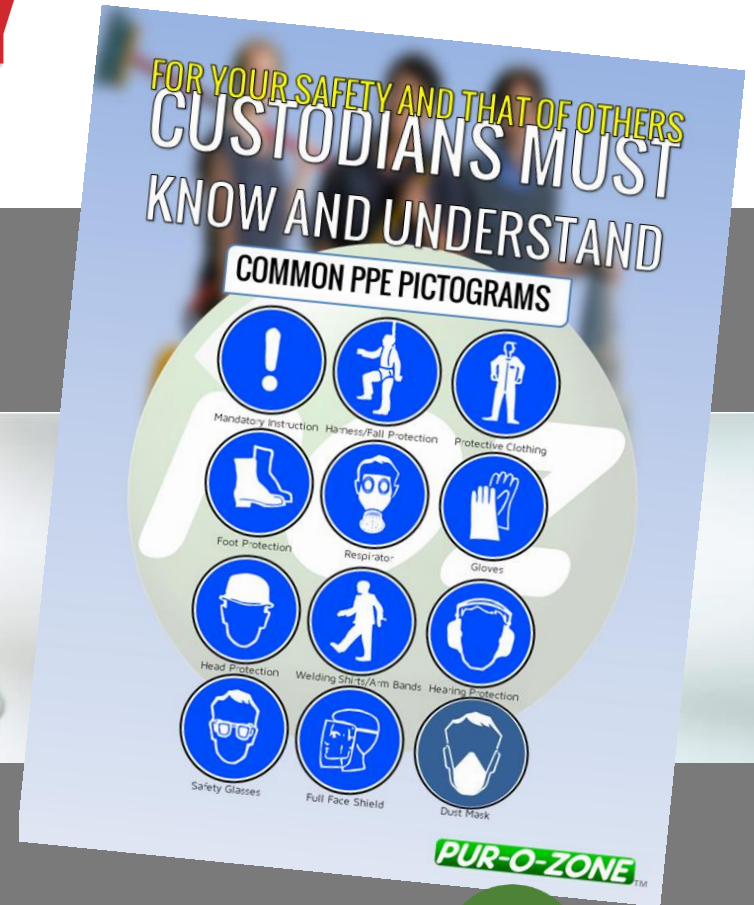
WE ARE ALWAYS HERE
TO HELP YOU CLEAN BETTER.

1. EDUCATE CUSTODIANS ABOUT HOW TO BREAK THE CROSS-CONTAMINATION CYCLE



WE ARE ALWAYS HERE
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2. REVIEW PRODUCT LABELS & CREATE A WRITTEN PPE POLICY FOR EACH MAJOR CLEANING FUNCTION



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3. SEPARATE YOUR CUSTODIANS FROM THE INFECTION WITH NO-TOUCH



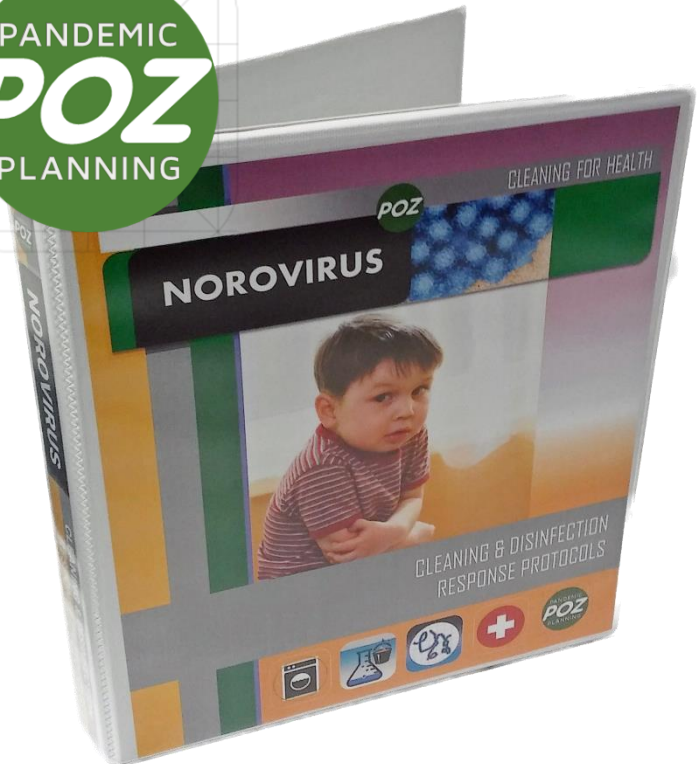
Hillyard® C3XP No-Touch
Cleaning System



Kaivac® No-Touch
Cleaning System



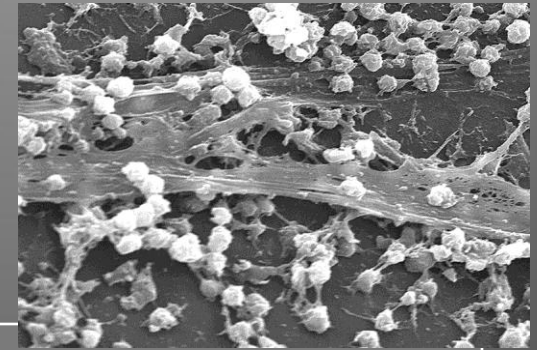
- 1 - **YOUR CURRENT CHEMISTRY** disinfection system efficacy
- 2 - **CURRENT DISINFECTION PROTOCOLS**



WE CAN ASSIST YOU IN PLANNING.

- 3 - **AUGMENTATION** - Adding specific chemistry or procedures for the threat you are experiencing.
- 4 - **CLEANING STAFF REVIEW** of Cleaning for Health procedures
- 5 - **THE SPECIFIC HEALTH THREAT**
- 6 - **BEHAVIOR MODIFICATION & EDUCATION SUPPORTS** - information to update and advise building stakeholders, employees, students, parents and interested public agencies

TERMS TO REMEMBER



TERM	MEANS
Norovirus	A gastro-infection acquired through ingesting small amounts of virus. Vomiting, diarrhea.
Fomite	A surface capable of supporting germs and then passing them along on hands.
Pathogen (PA-tho-jen)	Bacteria, viruses, fungus and molds harmful to mankind.
Portal of Entry	Route germs take into the human body.
Personal Protective Equipment	Use of barriers to keep infection from contact with skin, blood or portals of entry.
Disinfectant	Reduces germs on inanimate surfaces.
Cross-Contamination Cycle	Infection traveling from a host to a surface to another host.



Thank You



**We can also analyze the general potential for infection
from common touchpoint surfaces in your facility.**

Call us at 800-727-7876