



# Norovirus

## Childcare Centers & Schools

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January 30, 2024 1pm-2pm



# Word Cloud



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Event code  
**TRDJCC**



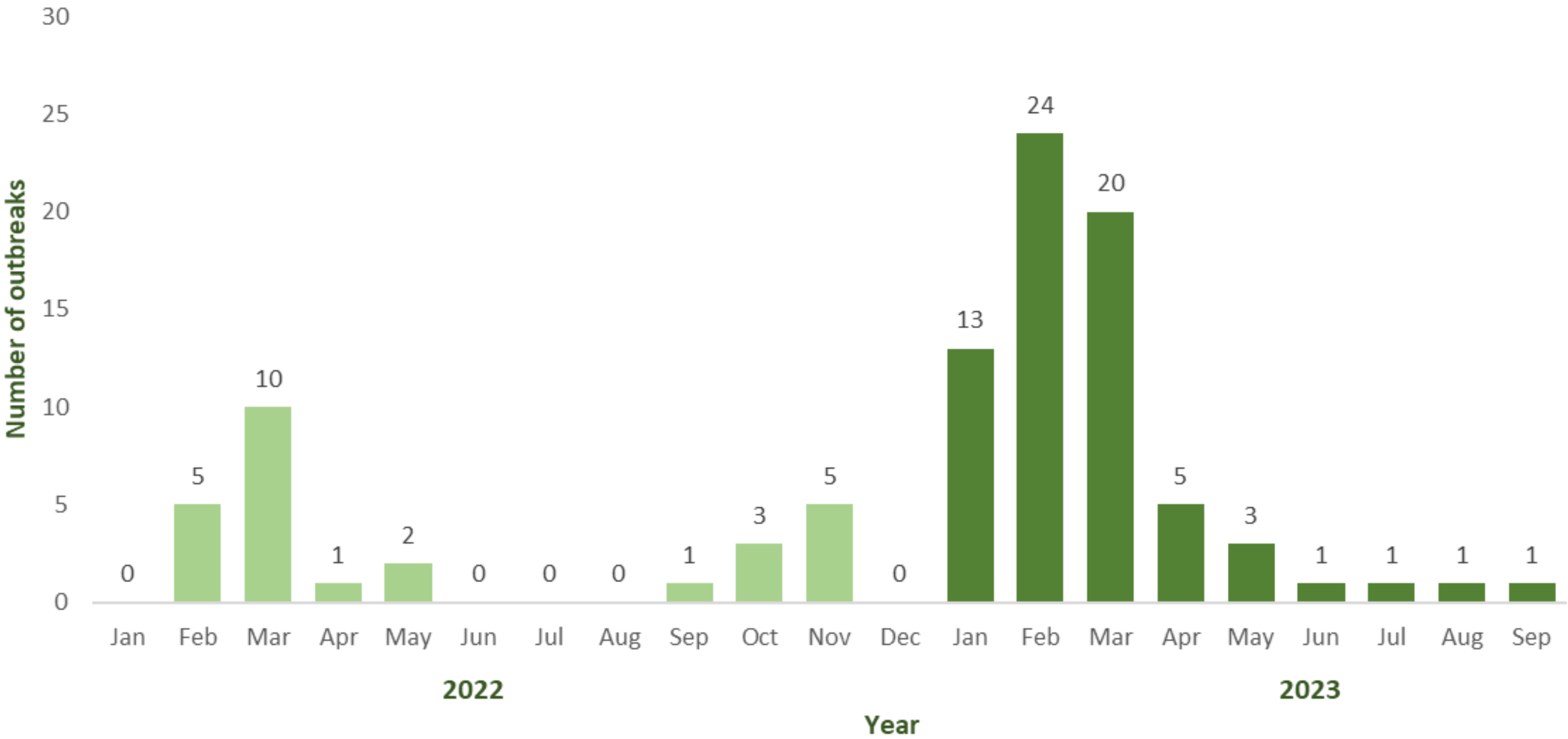
- 1 Send **@TRDJCC** to **(855) 910-9662**
- 2 Send your answer to the same number

# Stomach Illnesses

## Overview



### Reported gastrointestinal illness outbreaks in educational settings, Jan. 2022 - Sept. 2023 (N=96)





# Norovirus Overview

# Disease Burden

Due to norovirus, **by age 5**:

- **1 in 7** children will visit the doctor.
- **1 in 40** will go to the emergency department.
- **1 in 160** will be hospitalized.
- **1 in 110,000** children will die from norovirus.



# Norovirus

# Symptoms

# Diarrhea



# Vomiting



# Nausea



# Stomach Pain





**Fever**



**Headache**



**Body aches**

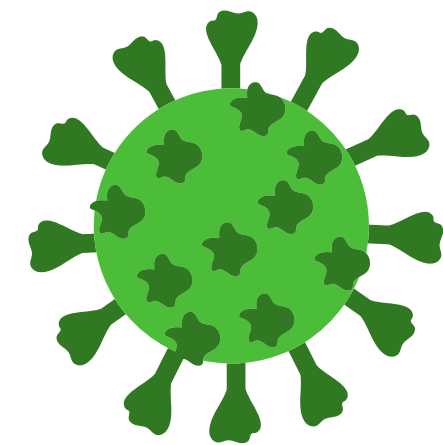


# Clinical Features

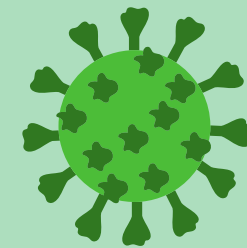
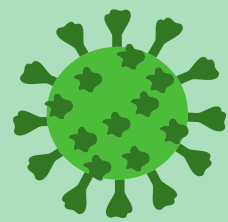
- Average incubation period: 12-48 hours
- Average duration of illness: 12-60 hours
- About 30% of infections remain asymptomatic

# About Norovirus

- Spreads very quickly and easily
- Appears quickly and resolves quickly
- Stays on surfaces and objects
- Infects people more than once



# Norovirus Transmission



# Daycares



# Cruise Ships



# Schools



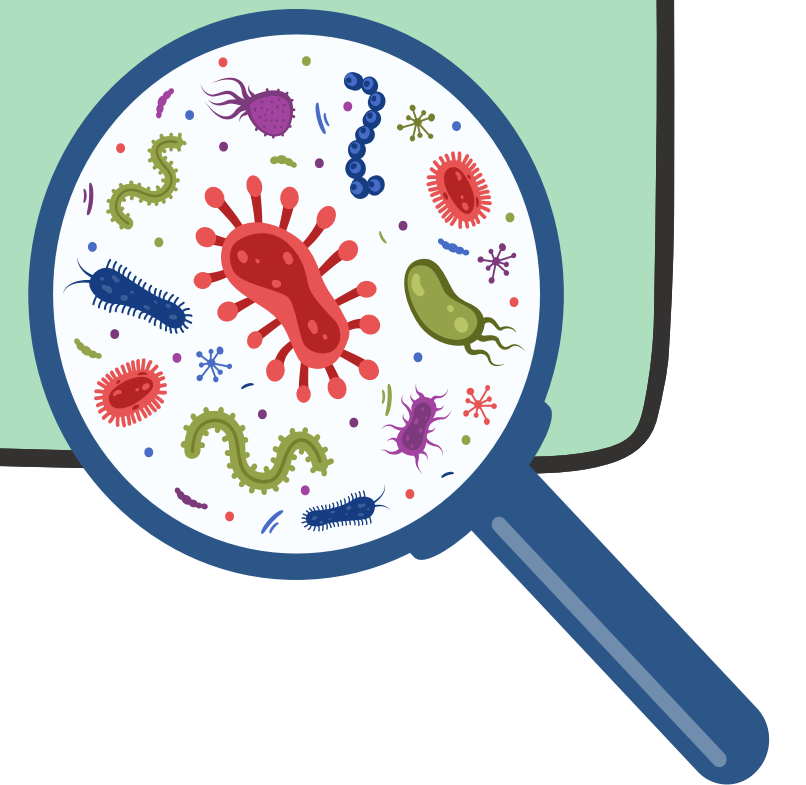
# Healthcare Facilities



# Spreads by:

- **Fecal-oral (stool to mouth) path**
  - Direct contact with an infected individual
  - Eating contaminated food
  - Drinking contaminated water
- **Vomit particles**
- **Objects or surfaces (fomites)**
  - Touching contaminated objects and then putting your hand into your mouth

# Norovirus Diagnosis





Often diagnosed based on symptoms rather than testing.





# Case Study

This morning, Mr. Buzz sent Andy home from Storybook Daycare after he had diarrhea two times and had a fever. Andy's mom took him to the doctor who diagnosed him with norovirus.

During nap time, two students from Andy's class vomited and had stomach pain. They were sent home.

What symptoms of norovirus were present at Storybook Daycare? (Select all that apply).

- Diarrhea
- Fever
- Vomiting
- Stomach pain
- Congestion

What symptoms of norovirus were present at Storybook Daycare? (Select all that apply).

- Diarrhea
- Fever
- Vomiting
- Stomach pain
- Congestion

At Storybook Daycare, there are 3 students within the same classroom with symptoms of norovirus. Should you treat this as a norovirus outbreak?

Yes

No

At Storybook Daycare, there are 3 students within the same classroom with symptoms of norovirus. Should you treat this as a norovirus outbreak?

Yes

No

Andy went to the doctor and was diagnosed with norovirus based on symptoms. His doctor also took a stool sample for further testing.

*While norovirus is usually diagnosed based on symptoms, stool testing can help identify whether the illness is caused by norovirus.*

- True
- False

*While norovirus is usually diagnosed based on symptoms, stool testing can help identify whether the illness is caused by norovirus.*

- True
- False

# Outbreak Detection





# Outbreak Criteria





# Outbreak Management

# NJDOH Norovirus Outbreak Guidance



New Jersey Department of Health  
Communicable Disease Service

## Prevention of Norovirus Outbreaks in School and Daycare Settings

Norovirus, formerly called Norwalk-like virus, is a virus that causes acute gastroenteritis in humans. The most common symptoms of norovirus are diarrhea, vomiting, and abdominal pain. Fever, chills, headache, body aches and fatigue may also be present. Symptom onset is usually abrupt, which is very characteristic of norovirus. Norovirus is very contagious, and is spread through contaminated food or water, by contact with an infected person, or by contamination of environmental surfaces. The virus has an incubation period (time period from when you are exposed to the virus to when you become ill) of 24-48 hours. Infected individuals are symptomatic for 1-2 days but may shed the virus for up to 2 weeks after recovering. Norovirus outbreaks are common in schools and daycare facilities.

While schools and daycare can never fully prevent outbreaks of illnesses, prompt and appropriate prevention actions can help reduce the number of students who become ill. These steps are outlined below.

### Outbreak detection and reporting:

**Daycare facilities and schools are required to report all confirmed or suspected outbreaks of acute gastroenteritis, including norovirus to their local health department as soon as possible.** An outbreak is defined as an occurrence of disease greater than would otherwise be expected at a particular time and place.

It is reasonable to initiate an investigation, implement prevention and control measures, and contact the local health department in the following situations:

- Two or more students in a classroom or group of students with onset of vomiting and or diarrhea on the same day.
- A doubling in the number of students absent due to a vomiting and/or diarrhea over that of normal for a particular time of year is indicative of an outbreak.

Maintain a daily log of students and teachers absent due to GI illness. Include name, age, gender, classroom, symptoms, date of onset and duration. Indicate if a specimen was sent to the laboratory, lab result, and hospitalization.

Although the number of cases might not meet the above definition of an outbreak, it is prudent to contact the local health department with any unusual cluster of gastrointestinal illness. A directory of local health departments can be found at the following website ([www.localhealth.nj.gov](http://www.localhealth.nj.gov)). If there is difficulty reaching your local health



**Communication is key!**



# Outbreak Reporting



# When should you reach out to your LHD?



- Two or more students in a classroom or group of students with onset of vomiting and/or diarrhea on the same day.
- A doubling in the number of students absent due to vomiting and/or diarrhea over that of normal for a particular time of year is indicative of an outbreak.

# Importance of Timely Reporting





- Control further spread of disease
- Investigate, identify, and remove sources of infection
- Learn about emerging problems
- Apply ways to control and prevent spread
- Make education, guidance, and disease-specific recommendations

# NJDOH General Outbreak Guidance



NEW JERSEY DEPARTMENT OF HEALTH  
COMMUNICABLE DISEASE SERVICE  
GENERAL GUIDELINES FOR THE CONTROL OF OUTBREAKS IN SCHOOL AND CHILD CARE  
SETTINGS

### Introduction

New Jersey Administrative Code, Title 6A, Chapter 16-2 and Chapter 52 (Manual of Requirements for Child Care Centers) mandate that each school district/child care center shall immediately report any communicable diseases that are identified as reportable pursuant to N.J.A.C. 8:57-1, whether confirmed or presumed, by telephone to the health officer of the jurisdiction in which the school is located. These regulations pertain to youth camps, child care centers, preschools, schools and institutions of higher education. Throughout the rest of this document, we will refer to these generally as "schools." This document has been prepared to guide in both identification and response to outbreaks occurring in the school setting.

An outbreak is defined as an occurrence of disease greater than would otherwise be expected at a particular time and place and further defined below.

### Reporting

Reporting communicable disease outbreaks in schools serves many purposes. **The immediate goal is to control further spread of the disease.** Beyond that, information gained from outbreak investigations can help schools and public health agencies identify and eliminate sources of infection such as contaminated products, learn about emerging problems, identify carriers to mitigate their role in disease transmission, and implement new strategies for prevention within schools.

Often in the school setting it is difficult to determine whether or not an outbreak exists. Following are some examples of confirmed or suspected outbreaks which should be reported by

**You should reach out to your local health department if two or more students in a classroom, or group of students, have an onset of vomiting and/or diarrhea on the same day.**

**True or False**

**You should reach out to your local health department if two or more students in a classroom, or group of students, have an onset of vomiting and/or diarrhea on the same day.**

**True** or False

# Control Measures

Exclusion



# NJDOH School Exclusion List

Infection or Condition	Common Symptoms	Exclusion for School/Daycare Children	Exclusion for Child Care Provider and/or Food Handler	Note	Reportable to Health Department
<b>Norovirus</b>	Nausea, vomiting, diarrhea, abdominal cramps. May also have low grade fever, chills, body aches, headache.	24-48 hrs. after symptoms resolve.	48-72 hrs. after symptoms resolve. Staff may perform duties not associated with food preparation 24 hrs. after symptoms resolve	Exclusion time on a case-by-case basis after consultation with the local health department.	Outbreaks/suspect outbreaks <sup>1</sup>

<sup>1</sup> An outbreak may be occurring if: several children who exhibit symptoms are in the same classroom, same wing, or attended a common event; there is an increase in school absences with report of similar symptoms; two or more students are diagnosed with the same reportable disease; or a single case of a highly infectious disease exists or is suspected to exist.

# Stay hydrated!

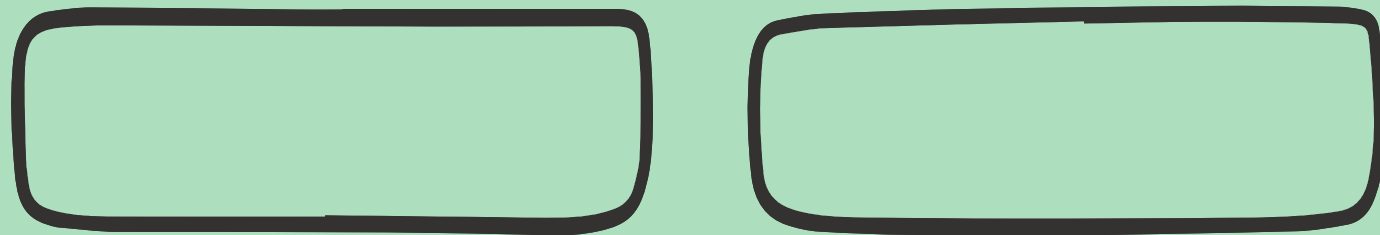


# See your doctor!



# Control Measures

Notifications





# Sample Notification Letter

## Sample Letter to Families about Exposure to Communicable Disease

Name of Program \_\_\_\_\_ Date \_\_\_\_\_

Telephone # \_\_\_\_\_

### Dear Parent or Legal Guardian:

A child in our program has or is suspected of having:

\_\_\_\_\_

### Information about this disease:

The disease is spread by: \_\_\_\_\_

The symptoms are: \_\_\_\_\_

It can be prevented by:  
\_\_\_\_\_  
\_\_\_\_\_

What the program is doing: \_\_\_\_\_

What you can do at home:  
\_\_\_\_\_  
\_\_\_\_\_

Where you can get additional information: \_\_\_\_\_

If your child has any symptoms of this disease, call your doctor or other healthcare provider to find out what to do. Be sure to tell him or her about this notice. If you do not have a regular provider to care for your child, contact your local health department for instructions on how to find a doctor, or ask other parents for names of their children's providers. If you have any questions, please contact:

\_\_\_\_\_ at \_\_\_\_\_  
School Nurse/Caregiver's name Phone number

NJDOH-CDS Reviewed July 2022

It is recommended to consult with your local health department when writing notification letters to ensure the information is accurate.

True or False

It is recommended to consult with your local health department when writing notification letters to ensure the information is accurate.

**True** or False

# Control Measures

## Handwashing



# WASH YOUR HANDS AFTER:

Changing  
diapers



Touching common  
surfaces



Shaking  
hands



Caring for people  
who are sick

**PREVENT NOROVIRUS**

Hand sanitizer is effective against  
norovirus.

True or False

Hand sanitizer is effective against  
norovirus.

True or **False**

# Control Measures

Cleaning & Disinfection





# EPA List G

List G: Antimicrobial Products Registered with EPA for Claims Against Norovirus (*Feline calicivirus*)

Registration Number	Active Ingredients/s	Product Name	Company	Contact time in Minutes (time surface should remain wet)	Formulation Type	Surface Types	Use sites (Hospital, Institutional, Residential)
100629-2	Quaternary ammonium	Stize RTU+	Florida Biotech, LLC	10	Ready-to-use	Hard Nonporous (HN)	Hospital; Institutional
100777-1	Hypochlorous acid	EWCO 200	EWOC LLC	5	Ready-to-use	Hard Nonporous (HN)	Hospital; Institutional; Residential
100798-1	Hypochlorous acid	Nanocyn	Microsafe Group	0.5	Ready-to-use	Hard Nonporous (HN)	Hospital; Institutional
10324-105	Quaternary Ammonium	Maquat 128 PD	Mason Chemical Company	10	Dilutable	Hard Nonporous (HN)	Hospital; Institutional; Residential
10324-108	Quaternary Ammonium	Maquat 256-MN	Mason Chemical Company	10	Dilutable; Electrostatic spray	Hard Nonporous (HN)	Hospital; Institutional; Residential
10324-112	Quaternary Ammonium	Maquat 128-MN	Mason Chemical Company	10	Dilutable; Electrostatic spray	Hard Nonporous (HN)	Hospital; Institutional; Residential
10324-113	Quaternary Ammonium	Maquat 64-MN	Mason Chemical Company	10	Dilutable; Electrostatic spray	Hard Nonporous (HN)	Hospital; Institutional; Residential

# Cleaning & Disinfection Resources

## What's the Difference Between Cleaners, Sanitizers, and Disinfectants?



Best practices for healthy child care centers



**CLEANERS:** All-purpose cleaners (certified green cleaners/soap/detergent and water) remove dirt, grime and most bacteria and viruses. Cleaning also helps remove mold and allergens that can trigger asthma symptoms.

**SANITIZERS:** Sanitizers reduce the levels of microorganisms on non-porous surfaces (metals, glass, hard plastic). Sanitizer labels should specify the surfaces they are intended to be used on. Sanitizers must be registered and are regulated by the U.S. Environmental Protection Agency (EPA).

**DISINFECTANTS:** Disinfectants kill multiple organisms including bacteria and many viruses on non-porous surfaces. Disinfectants are pesticides regulated and registered by the EPA.

### Recommended Cleaning Protocols for Child Care Centers

Areas/Objects	Clean with a green cleaner	Sanitize	Disinfect
General: shelves, windows, high countertops, carpets, glass	yes		
Surfaces touched by many hands: include doorknobs, cabinet handles, stair railings	yes		yes
Diaper changing areas, bathrooms, coats, cribs	yes		yes
Water fountains	yes		yes
Floors, walls, partitions	yes		yes
Surface and objects contaminated with blood and body fluids	yes		yes
Kitchen: eating utensils, bottles, dishes; food preparation and serving areas (high chairs, meal tables)	yes	yes	
Plastic toys and pacifiers	yes	yes	

- ✓ During an illness or outbreak, increase the frequency of hand washing and cleaning surfaces. Only disinfect targeted areas as specified in the table above.
- ✓ Cleaning should be done before sanitizing or disinfecting. Cleaning ensures that the sanitizer or disinfectant will be effective.
- ✓ Overuse of disinfectants may lead to the spread of superbugs – germs that are not easily killed by disinfectants.

Reference: [USEPA] Green Cleaning, Sanitizing, and Disinfecting: A Curriculum for Early Care Education: <https://bit.ly/2IVQppC>

**OVER**

Division of Epidemiology, Environmental and Occupational Health  
Consumer, Environmental and Occupational Health Service  
Environmental and Occupational Health Surveillance Program  
<https://www.nj.gov/health/ceohs/environmental-occupational/ccc-toolkit/index.shtml>



## Tips for choosing safer products for cleaning, sanitizing, and disinfecting:

- ✓ Choose less toxic cleaning products that have been tested and certified by a third-party group such as Green Seal, EcoLogo, EPA's Safer Choice, or EPA's Design for the Environment (older EPA logo)
- ✓ Check the product label for the EPA registration number for sanitizers and disinfectants
- ✓ Pick sanitizers that are made for food contact surfaces
- ✓ Use sanitizers and disinfectants labeled as "hospital grade"
- ✓ Choose products with a "zero" rating on the Hazardous Materials Identification System (HMIS) health rating scale on the manufacturers Safety Data Sheet
- ✓ Look for less dangerous signal words on the label like "Caution" or "Warning" rather than "Danger" or "Poison"
- ✓ Select products with short contact time (the time the product must be left wet and in contact with germs to kill them)
- ✓ Prepare and use solutions safely according to the directions on the label
- ✓ Use products that are safe for oral contact when used on food contact surfaces or on items that may be mouthed by children

Look for these logos!



Always store cleaning, sanitizing, and disinfecting products out of reach of the children.

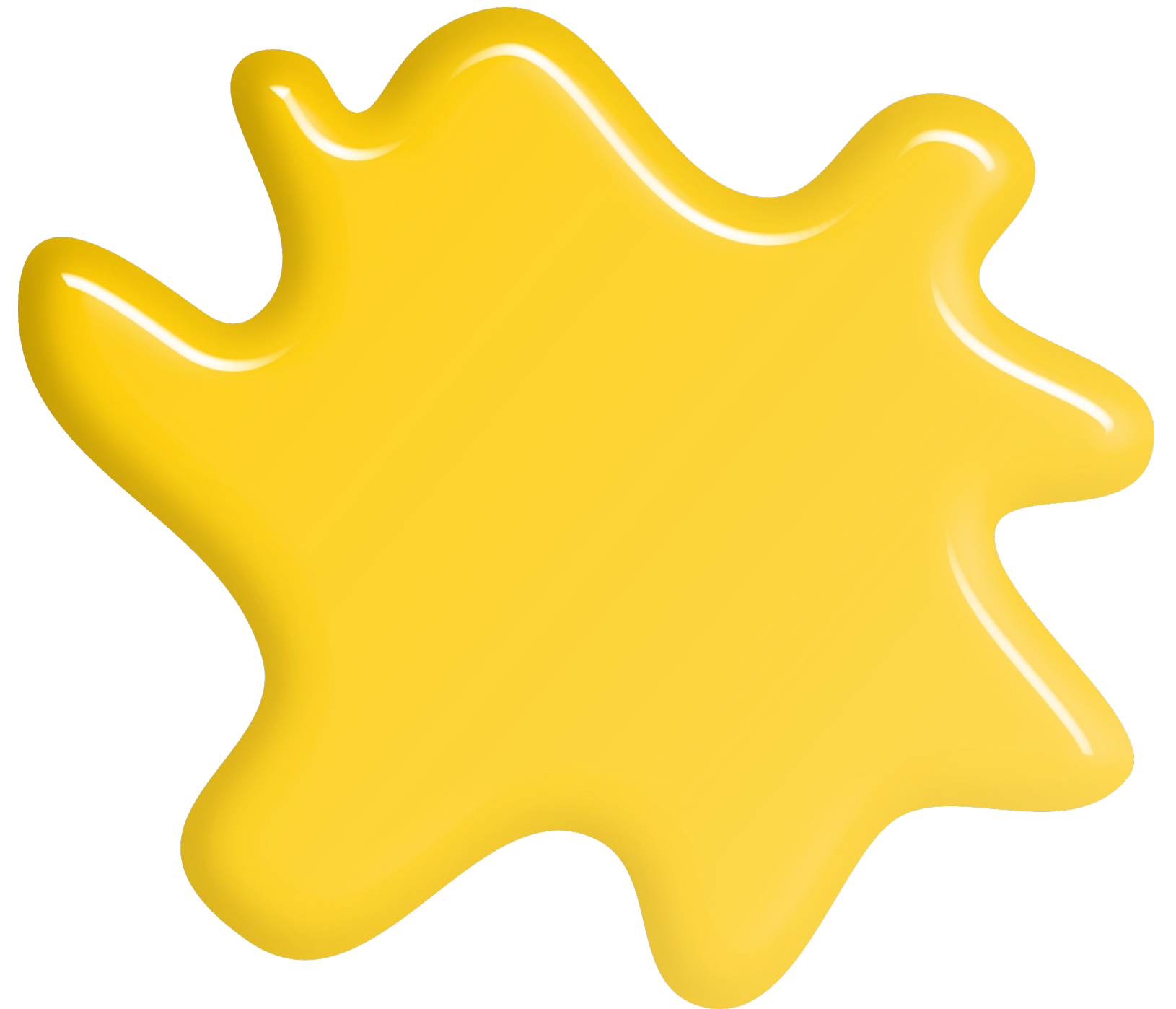
# Spill Cleanup



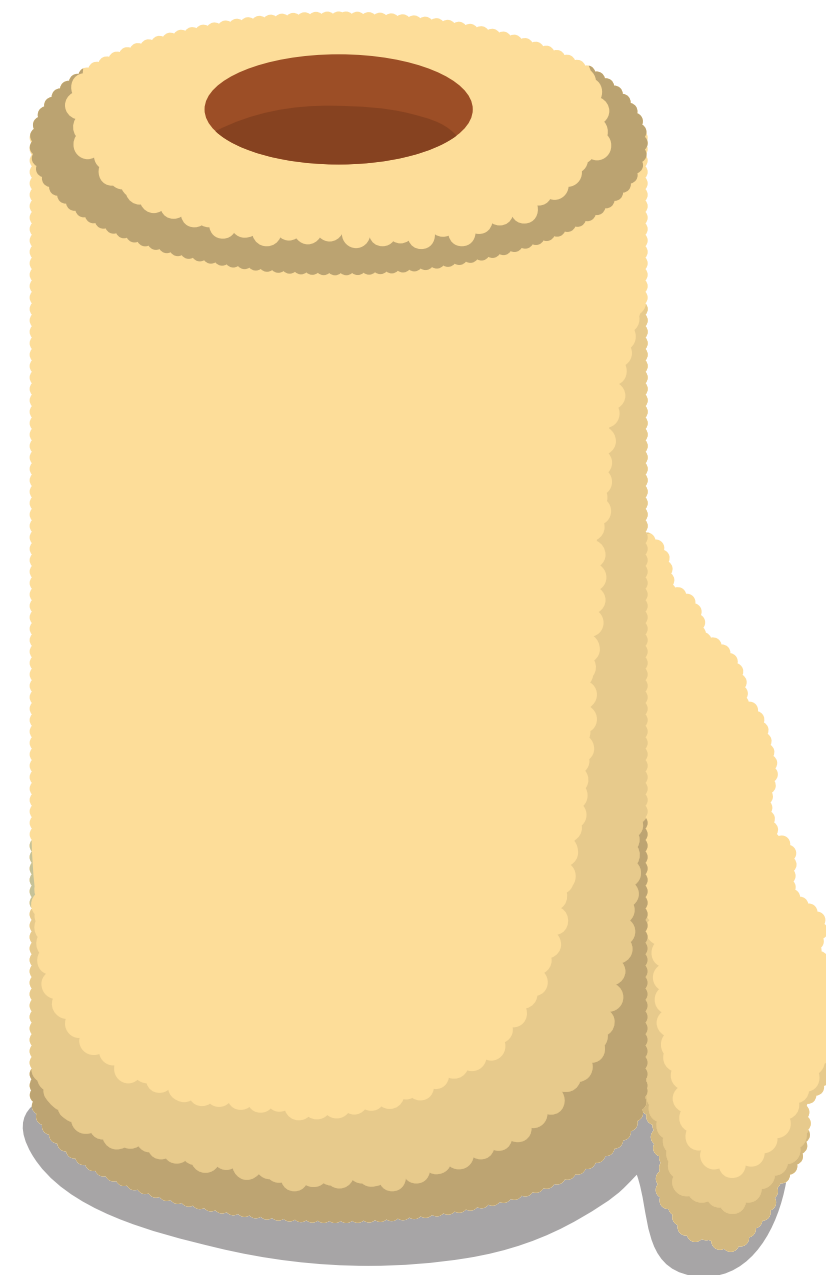
**Block off  
the area and  
clean spill.**



**Clean an area  
wider than  
the spill.**



**Soak up the  
spill.**



**Clean with  
warm, soapy  
water.**



**Spray the area  
with an approved  
disinfectant.**





Place used  
items in a  
sealed bag.



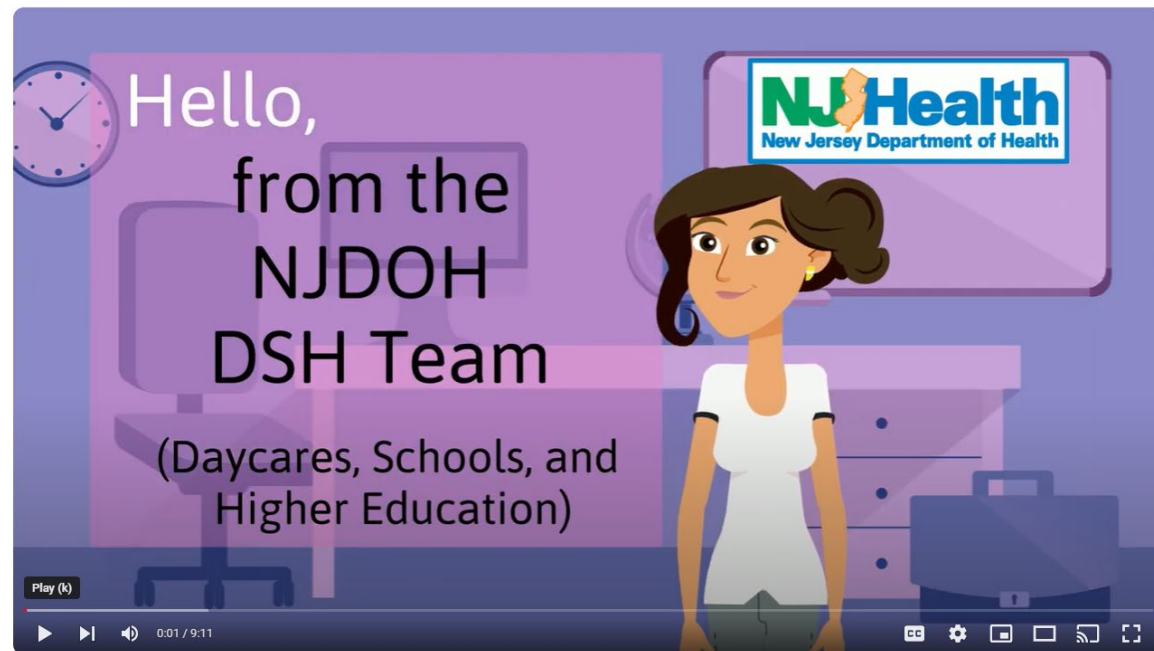
**Wash your  
hands!**



Throw the bag  
away into a  
wastebasket.



# Resources



Norovirus in Childcare Centers and Schools

[New Norovirus Video](#)

**Norovirus - The "Stomach Bug"**  
Facts and Prevention Tips for Childcare Centers and Schools

Norovirus is a highly contagious virus that spreads very easily and quickly.

Norovirus illness can happen at any time, but it is most common from **November to April**.

The most common norovirus symptoms are diarrhea, vomiting, and stomach pain.

Norovirus spreads in many ways.

- Direct contact with someone infected with norovirus
- Contaminated food
- Contaminated water
- Contaminated surfaces

If you are sick with norovirus, stay home until **24 to 48 hours** after symptoms are gone.\*

Wait until **48 to 72 hours** after symptoms are gone to resume food preparation duties.\*

Wash your hands with warm water and soap.

Clean and disinfect commonly used areas and surfaces regularly.

Report suspected or confirmed outbreaks of norovirus to your local health department.

Scan QR codes below for more information from New Jersey Department of Health about:

- Norovirus
- School Health

Hand sanitizers are not effective against norovirus.

Products effective against norovirus are listed on EPA's List G. Scan the QR code to go to the list.

\*Exclusion time may vary. If needed, contact your local health department.

**Norovirus - El "Virus estomacal"**  
Datos Importantes y Consejos de Prevención en Guarderías y Escuelas

El norovirus es un virus muy contagioso que se propaga fácil y rápidamente.

La enfermedad del norovirus puede ocurrir en cualquier época, pero es más común entre **noviembre y abril**.

Los síntomas más comunes del norovirus son diarrea, vómito y dolor de estómago.

El norovirus se propaga de muchas maneras.

- Contacto directo con alguien infectado con norovirus
- Alimentos contaminados
- Agua contaminada
- Superficies contaminadas

Si está enfermo(a) con norovirus, quétese en casa hasta **24 a 48 horas** después de que desaparezcan los síntomas.\*

Espere **48 a 72 horas** después de que desaparezcan los síntomas antes de preparar alimentos.\*

Lávese las manos con agua tibia y jabón.

Limpie y desinfecte las áreas comunes regularmente.

Reporte los brotes de norovirus, ya sean presuntos o confirmados, a su departamento de salud local.

Escanee los códigos QR para obtener más información del Departamento de Salud de New Jersey sobre:

- Norovirus
- Salud en las escuelas

El gel desinfectante de manos no es efectivo contra el norovirus.

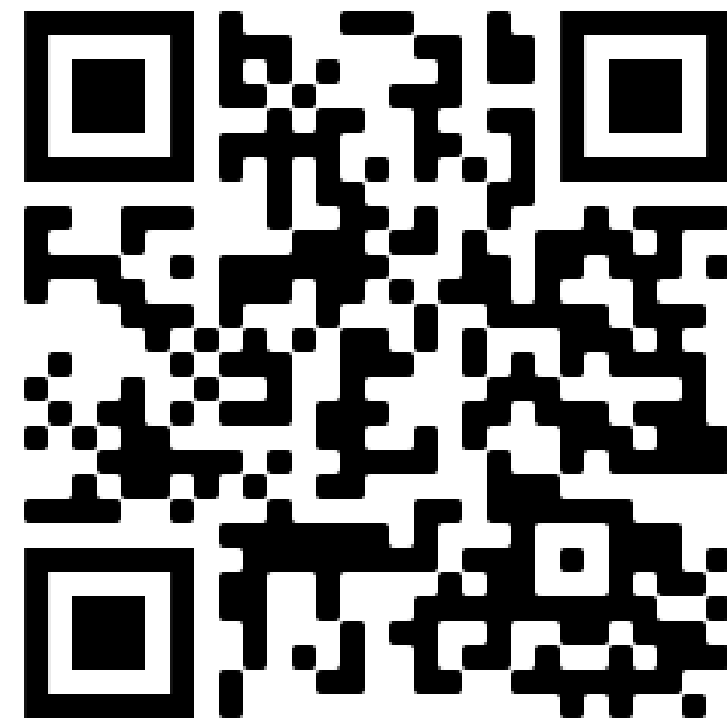
La Lista G de la EPA indica los productos efectivos contra el norovirus. Escanee el código QR tener acceso a la lista.

\* El tiempo de exclusión puede variar. Si es necesario, contacte a su departamento de salud local.

Norovirus Flyer in [English](#) and [Spanish](#)

**For more information:**

**Scan the code below to access the  
NJDOH DSH Team webpage!**



# Resources

- [NJDOH Norovirus](#)
- [NJDOH School Health](#)
- [CDC Norovirus](#)
- [CDC Norovirus Guidelines for Healthcare Settings](#)
- [CDC Handwashing](#)
- [EPA List G](#)
- [NJDOH Toolkit for Keeping Your Child Care Center Healthy](#)
- [NJDOH DSH Team](#)

# THANK YOU



**Contact:** [cds.rep.communications@doh.nj.gov](mailto:cds.rep.communications@doh.nj.gov)



[nj.gov/health](http://nj.gov/health)