



Norovirus

Childcare Centers & Schools



Stomach Illnesses Overview





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

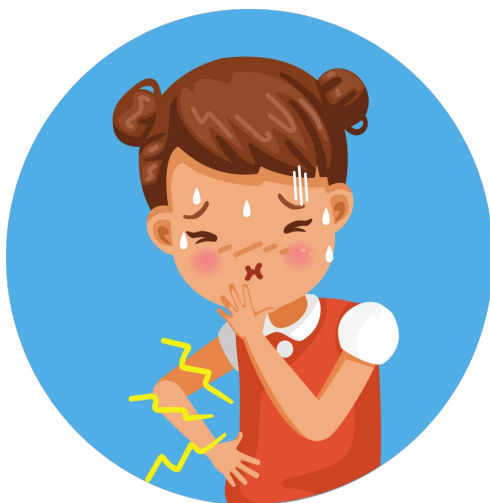
Diarrhea



Vomiting



Nausea



Stomach Pain



Fever



Headache



Body aches

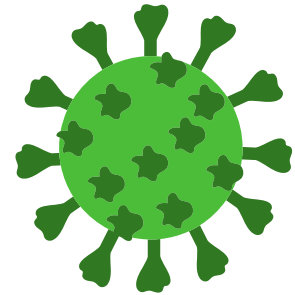


Clinical Features

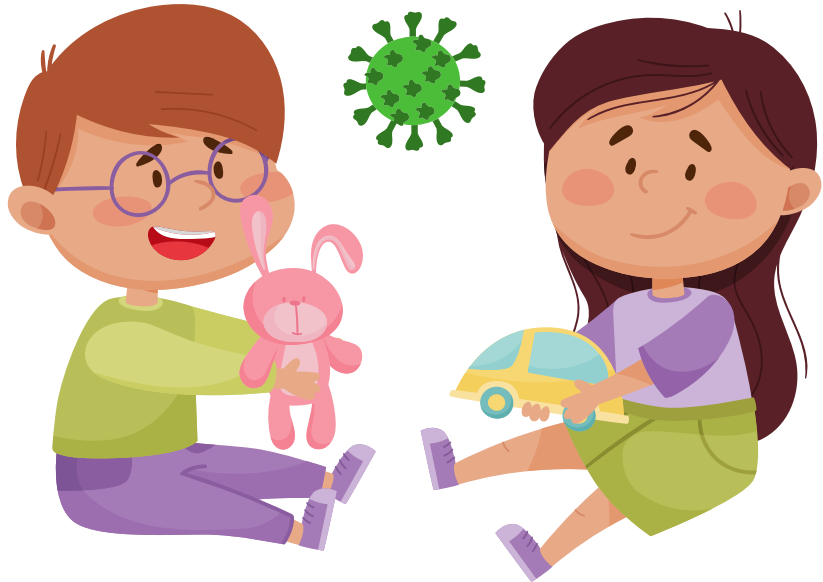
- Average incubation period: 12-48 hours
- Average duration of illness: 12-60 hours
- About 30% of infections remain asymptomatic

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 person
 - Eating contaminated food
 - Drinking contaminated water
- **Vomit particles**
- **Objects or surfaces (fomites)**
 - Touching contaminated objects and then putting your unwashed fingers in 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 also 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, a specific stool testing ordered by the doctor can help identify whether the illness is caused by norovirus.

☐ True

☐ False

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

☒ True

☐ False

Outbreak Detection

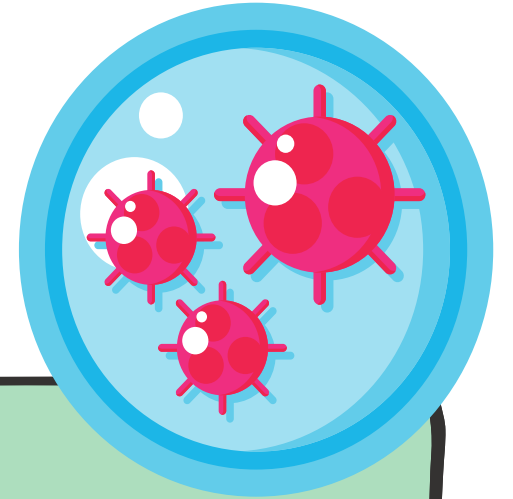


Outbreak Criteria



Source: CDC - <https://www.cdc.gov/norovirus/php/reporting/outbreak-responding.html>

Outbreak Management



NJDOH Norovirus Outbreak Guidance



Prevention of Norovirus Outbreaks in School and Childcare Settings

Norovirus is a virus that causes acute gastroenteritis in humans. It is sometimes called the "stomach flu" but is not related to influenza (flu) viruses, which primarily cause respiratory infection.

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 12-48 hours. Infected individuals are symptomatic for 1-2 days. Typically, a person is contagious as soon as they begin feeling sick and remains contagious until a few days after they recover. However, sometimes an ill person can continue to shed norovirus in their feces for two weeks or longer and can remain contagious even after symptoms have ended. Norovirus can spread quickly from person to person in places such as schools and childcare centers.

Outbreak detection and reporting

Childcare centers 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 of norovirus is defined as an occurrence of two or more similar illnesses resulting from a common exposure that is either suspected or laboratory-confirmed to be caused by norovirus.

Information should be gathered to confirm the outbreak – schools should provide as much of the following information as possible:

- Total number of students and staff in the school
- A line list (also known as an illness log) that includes all ill children and staff. Line list templates, School/Childcare Excel and Google Sheets Line Listing can be found on the [School Health](#) webpage.
 - Include all food handlers that have been ill, along with their specific duties. A food handler is any person directly preparing or handling food. Food handlers may range from staff providing snacks in a childcare setting to cafeteria staff in a school.



Communication is key!

Line List

Select Exposure Set		SCHOOL		School Name		Reported By		Phone		Total Number of OB associated Cases (Auto-calculated)		0																		
Outbreak/Investigation Number (EID Number)				Report Date		Total Number of Students		Total Number of Staff		Total Number of OB-associated Hospitalized (Auto-calculated)		0																		
										Line-list last updated on (Auto-calculated)																				
CDRSS ID (LHD/DOH use only)	Case associated with outbreak? (LHD/DOH use only)	LAST NAME	FIRST NAME	DATE OF BIRTH (DOB)	SEX	CASE ROLE (Student/Staff/Attendee/Visitor)	GRADE	ROOM	FEVER (Y/N)	TEMPERATURE (°F), IF KNOWN	ASYMPTOMATIC	DIARRHEA	BLOODY STOOL	ABDOMINAL PAIN	NAUSEA	VOMITING	HEADACHE	SORE THROAT	COUGH	FATIGUE	CHILLS	PINK EYE (CONJUNCTIVITIS) RASH (Describe location and type, if any)	OTHER (specify)	ILLNESS ONSET DATE	DURATION OF SYMPTOMS	DATE SPECIMEN COLLECTED	TEST NAME & RESULTS (e.g. RSV POS)	DIAGNOSIS BY HCP	HOSPITALIZED	COMMENTS

Outbreak Reporting



When should you reach out to your LHD?

- When you notice two or more similar illnesses resulting from a common exposure that is either suspected or laboratory-confirmed to be caused by norovirus



Importance of Timely Reporting



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

NJDOH General Outbreak Guidance



GENERAL GUIDELINES FOR THE PREVENTION AND CONTROL OF OUTBREAKS IN EDUCATIONAL SETTINGS

Introduction

Per New Jersey Administrative Code (N.J.A.C.) 6A:16-2.2 and N.J.A.C. 3A:52-7.1, each school district and childcare center shall immediately report by telephone to the health officer of the jurisdiction in which the school is located any communicable diseases identified as reportable pursuant to N.J.A.C. 8:57-1, whether confirmed or presumed.

These regulations pertain to youth camps, childcare/early care and education programs (ECEs), schools and institutions of higher education. Additional outbreak guidance specific to the camp setting can be found on the New Jersey Department of Health (NJDOH) [School Health](#) webpage. Throughout the rest of this document, unless otherwise noted, these educational settings will be referred to generally as "schools". This document has been prepared to guide in both identification and response to outbreaks occurring in the school setting.

Reporting

Information related to school absenteeism plays a crucial role in detecting disease clusters or outbreaks. In accordance with Executive Order 302 and Executive Directive No. 21-011, **K-12 schools are required to submit weekly data**, including student census and absenteeism, to the New Jersey Department of Health (NJDOH) through the Surveillance for Infectious Conditions (SIC) Module in New Jersey's Communicable Disease Reporting and Surveillance System (CDRSS). Weekly reporting into the SIC Module does not take the place of reporting outbreaks to the local health department (LHD).

Reporting communicable disease outbreaks in schools serves various purposes. The primary objective is to immediately control the further spread of the disease. Additionally, insights gained from outbreak investigations assist schools and public health agencies in identifying and eliminating sources of infection, understanding emerging problems, identifying carriers to mitigate their role in disease transmission, and implementing new prevention strategies within schools.

In the school setting, determining if an outbreak is occurring can be challenging. **An outbreak is defined as an occurrence of disease greater than expected at a specific time and place.** The following examples of confirmed or suspected outbreaks should be reported by the school to their local health department (LHD). This list is not exhaustive; if the situation doesn't align with these criteria and an outbreak is suspected, consultation with the LHD is recommended.

A school may be experiencing an outbreak (i.e., occurrence of disease greater than expected) may be if:

1. Several children who exhibit similar symptoms are in the same classroom, the same wing of a facility or they attended a common event.

You should reach out to your local health department if you notice two or more similar illnesses resulting from a common exposure that is either suspected or laboratory-confirmed to be caused by norovirus.

True or False

You should reach out to your local health department if you notice two or more similar illnesses resulting from a common exposure that is either suspected or laboratory-confirmed to be caused by norovirus.

True or False

Control Measures Exclusion



NJDOH School Exclusion List

Infection or Condition	Common Signs and Symptoms	Exclusion for School/Daycare Children	Exclusion for Childcare Provider and/or Food Handler	Notes	Individual Cases Reportable to Health Department
Norovirus	Nausea, vomiting, diarrhea, abdominal cramps. May also have low grade fever, chills, body aches, headache.	Until 24-48 hrs. after symptoms resolve and fever free for 24 hours without fever reducing medication.	Exclude from cooking, preparing and touching food 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 (i.e., during an outbreak).	

An outbreak may be occurring if: several children who exhibit similar 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 diagnosed with the same reportable disease. 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 illness/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: _____

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

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





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, cots, 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/2VQppC>

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/cco-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



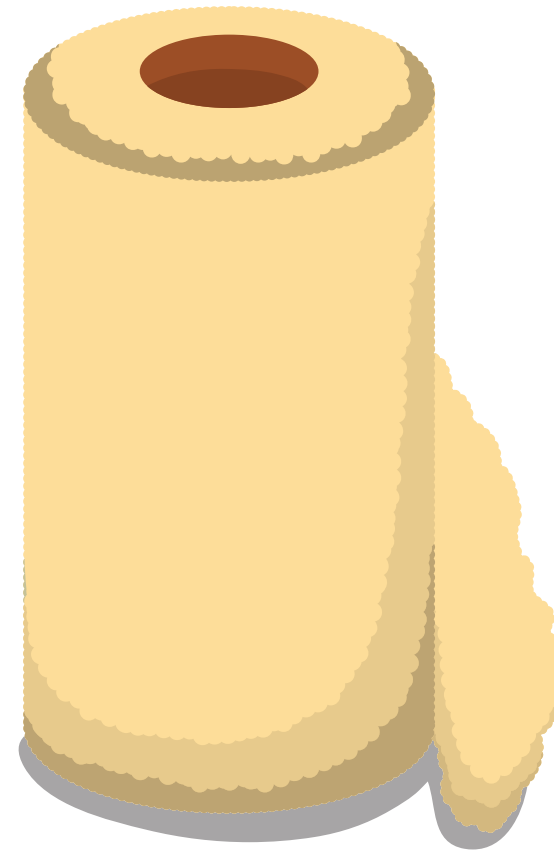
**Block off
the area and
clean spill.**



**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.**



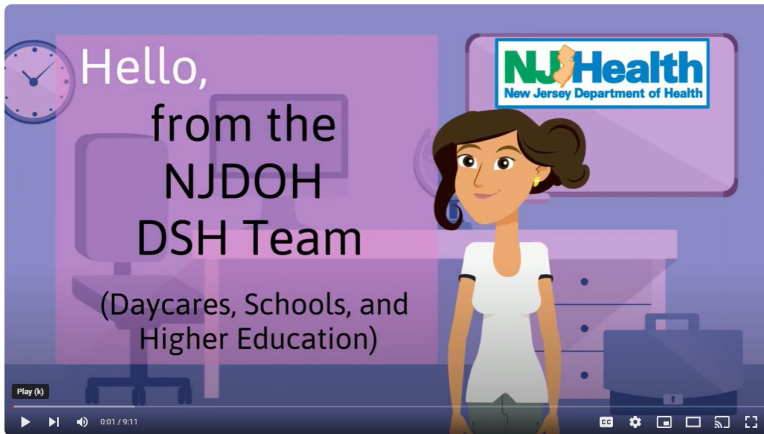
**Wash your
hands!**



**Throw the bag
away into a
wastebasket.**



Resources



Norovirus in Childcare Centers and Schools

NOROVIRUS

Information for Childcare Centers & Schools

What is norovirus?

Also known as "the stomach bug," norovirus is a very contagious virus that spreads quickly and easily.

Peak Season

Norovirus can spread at any time, but most people get sick from November to April.

Common symptoms:

- Diarrhea
- Vomiting
- Stomach pain
- Nausea

How It Spreads

- Direct contact with someone with the virus
- Contaminated food, water, or surfaces

PRECAUTIONS

Wash Your Hands

Wash your hands with warm water and soap. Hand sanitizers don't work well against norovirus.

Stay Home

If you get norovirus, stay home from school/work for 24-48 hours after symptoms are gone.**

Keep It Clean

Regularly clean and disinfect commonly used areas/surfaces.*

Preparing Food

Do not prepare food for others until 48-72 hours after symptoms have resolved.**

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

New Jersey Department of Health information about:

Norovirus

School Health

*Environmental Protection Agency's list of products effective against norovirus (List G):

**Exclusion times may vary during outbreaks; contact your local health department.

NOROVIRUS

Consejos y datos importantes para las guarderías y escuelas

¿Qué es el norovirus?

También conocido como "el virus estomacal," el norovirus es un virus muy contagioso que se propaga fácil y rápidamente.

Temporada

El norovirus puede propagarse en cualquier época del año, pero es más común enfermarse entre noviembre y abril.

Síntomas más comunes:

- Diarrhea
- Vómito
- Stomach pain
- Nausea

Propagación

- Por contacto directo
- Por medio del consumo de agua o comida contaminada
- Tocando superficies contaminadas

Prevención

Lávese las manos

Lávese las manos con agua tibia y jabón. El alcohol en gel no es tan efectivo contra el norovirus como el agua y el jabón.

Quélese en casa

Si está enfermo con el norovirus, no vaya a la escuela o al trabajo. Quélese en casa 24 a 48 horas hasta que sus síntomas desaparezcan.**

Limpiar y desinfectar

Limpe y desinfecte las áreas comunes con frecuencia.*

Preparación de Alimentos

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

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

Información del Departamento de Salud de Nueva Jersey sobre:

El norovirus

La salud escolar

*Lista de productos efectivos contra el norovirus de la Agencia de Protección Ambiental ("List G"):

**El tiempo de exclusión puede variar durante los brotes del virus. Contacte a su departamento de salud local.

**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



nj.gov/health

Q & A



nj.gov/health