Coronavirus Disease 2019 (COVID-19)

Cleaning, Disinfection, and Hand Hygiene in Schools – a Toolkit for School Administrators

A Toolkit for School Administrators

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About this toolkit

Reducing the risk of exposure to coronavirus (or SARS-CoV-2, the virus that causes COVID-19) by cleaning and disinfection is an integral part of reopening schools that will require careful planning.

This guidance is intended to aid school administrators as they consider how to protect the health, safety, and wellbeing of students, teachers, other school staff, families, and communities and prepare for educating students this fall.

School administrators are individuals who oversee the daily operations of K-12 schools, and may include school district superintendents, school principals, and assistant principals.

Cleaning and disinfecting your school will require you to:

- Develop your plan
- Implement your plan
- Maintain and revise your plan

Recommendations are based on CDC's current knowledge of COVID-19 in the United States. CDC will continue to monitor COVID-19 activity and update guidance as needed. This guidance is meant to supplement—not replace—any state, local, territorial, or tribal health and safety laws, rules, and regulations with which schools must comply.

Handouts

Six Steps to Clean and Disinfect Your School [PDF]

Steps to safely and effectively reduce the spread of disease in your school or facility

- Handout (8.5 x 11): English | Spanish
- Poster (11×17): English | Spanish

Six Steps to Clean and Disinfect Your School – Detailed

Steps to safely and effectively reduce the spread of disease in your school or facility

- Handout (8.5 x 11): English | Spanish
- Poster (11×17): English | Spanish

For Teachers: Cleaning and Disinfecting Classrooms [PDF]

Tips to reduce the spread of germs in the classroom by keeping surfaces clean and reminding students of the importance of hand hygiene

- Handout (8.5 x 11): English | Spanish
- Poster (11×17): English | Spanish

Reducing the spread of germs at schools

Cleaning and disinfecting and promoting hand hygiene are important everyday actions schools can take to slow the spread of COVID-19 and other infectious diseases and protect students and staff. CDC offers the following cleaning, disinfecting, and hand hygiene considerations to help school administrators make decisions, protect their students and staff, and communicate with families and communities.

Why is cleaning and disinfection important?

SARS-CoV-2, the virus that causes COVID-19, can be reduced and killed from surfaces, objects, and hands if the right products are used correctly. The virus is thought to spread mainly from person to person, but it may also spread by touching a surface or object that has the virus on it and then touching your own mouth, nose, or possibly your eyes. Cleaning and disinfecting can reduce the risk of spreading infection by reducing and killing germs on surfaces people frequently touch. The Environmental Protection Agency (EPA) has compiled a list of disinfectant products that can be used against the virus that causes COVID-19 , including ready-to-use sprays, concentrates, and wipes.

Why is practicing good hand hygiene important?

Keeping your hands clean is one of the best ways to protect yourself and others from getting sick. When SARS-CoV-2, the virus that causes COVID-19, gets onto hands and is not washed off, it can be passed from person to person. Germs from unwashed hands can get into the body through the mouth, nose, and eyes and make people sick. Good hand hygiene – regular handwashing with soap and water for at least 20 seconds or using an alcohol-based hand sanitizer with at least 60% alcohol if soap and water are not readily available – reduces the spread of germs that can cause illness, especially if done at key times throughout the day. To avoid poison emergencies, hand sanitizers should be stored away, and out of sight of children under six years of age and should be used with adult supervision.

Cleaning and disinfection: what's the difference?

Cleaning and disinfecting are part of a broad approach to prevent infectious diseases, including COVID-19, in schools. To help slow the spread of the virus that causes COVID-19, preventive measures include staying home when sick, social distancing, using masks, washing hands often, and regular cleaning and disinfection. Use the tips below to slow the spread of disease specifically through cleaning and disinfecting.

Cleaning physically removes germs, dirt, and impurities from surfaces or objects by using soap (or detergent) and water.

This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

Disinfecting kills germs on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects.

This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

Clean surfaces and objects using soap and water prior to disinfection.

Integrating cleaning and disinfection into the daily plan

Who will clean, how often, and where?

Cleaning and disinfecting reduce the risk of spreading infection by removing and killing germs on surfaces people frequently touch. Consider cleaning and disinfecting more frequently at your school to reduce the spread of the virus that causes COVID-19.

Staff and scheduling

- **Make a plan with staff and teachers.** Discuss obstacles to more frequent cleaning and disinfecting and ways to overcome those obstacles.
- **Train staff.** Ensure that cleaning staff, teachers, and others who use cleaners and disinfectants read and understand all instruction labels, understand safe and appropriate use, and have and are using the PPE appropriate to the product. Consider providing instructional materials and training in other languages.
- **Develop a schedule for increased, routine cleaning and disinfection.** Modify your standard procedures to accommodate more frequent cleaning and disinfection. Focus cleaning and disinfection on frequently touched objects (e.g., doorknobs, light switches, classroom sink handles, countertops) and shared items between uses.

Cleaning and disinfection products should not be used by children or near children, and staff should ensure that there is adequate ventilation when using these products to prevent children or themselves from inhaling toxic vapors.

Soiled surfaces and objects

- **Immediately clean surfaces and objects that are visibly soiled.** Use soap (or detergent) and water to clean surfaces or objects that look dirty. Visibly dirty surfaces should be cleaned prior to disinfection.
- If surfaces or objects are **soiled with body fluids or blood**, use gloves and other standard precautions to avoid coming into contact with the fluid. Contain and remove the spill, and then clean and disinfect the surface.

Coronaviruses on surfaces and objects naturally die within hours to days. Warmer temperatures and exposure to sunlight will reduce the time the virus survives on surfaces and objects.

Frequently touched surfaces

- **Clean and disinfect frequently touched surfaces** (e.g., playground equipment, door handles, sink handles, drinking fountains) within the school and on school buses at least daily or between use as much as possible. This may include adding additional areas or surfaces to standard procedures for disinfection.
    - If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.

Shared objects

- **Limit the use of shared objects** (e.g., gym or physical education equipment, art supplies, toys, games, computers) when possible, or clean and disinfect between use.
- **Discourage sharing of items that are difficult to clean or disinfect** such as electronic devices, pens and pencils, classroom stapler, whiteboard markers and erasers, books, games, art supplies (e.g., markers, crayons, scissors), and other learning aids. Soft and porous materials, such as area rugs and seating, may be removed to reduce the challenges with cleaning and disinfecting them.
- **Keep each student's belongings separated from others'** and in individually labeled containers, cubbies, lockers or areas.
- **Ensure adequate supplies to minimize sharing** of high touch materials to the extent possible (e.g., assigning each student their own art supplies, equipment) or limit use of supplies and equipment to one group of students at a time and clean and disinfect between use.

Safe and effective cleaning and disinfection

Choosing the right products

- **Use products on List N: Disinfectants for use against SARs-CoV-2** . These products can kill the virus that causes COVID-19 and include ready-to-use sprays, concentrates, and wipes.
- **Ensure adequate supplies are available to support more frequent cleaning and disinfection.**

- Consider whether teachers and staff will need additional cleaning and disinfection supplies (e.g., cleaning and disinfection products, paper towels, gloves) beyond those normally stocked in classrooms and on school grounds and property.
- Consider providing EPA-approved disposable wipes to teachers and staff so that commonly used surfaces (e.g., desks/tables and chairs, keyboards, doorknobs, classroom sink handles, countertops) can be wiped down before use.

- If EPA-approved disinfectants are not available, diluted household bleach solutions can be used if appropriate for the surface. Unexpired household bleach will be effective against coronaviruses when properly diluted.
  - Use bleach containing 5.25%–8.25% sodium hypochlorite. Do not use a bleach product if the percentage is not in this range or is not specified.
  - Follow the manufacturer's application instructions for the surface, ensuring a contact time of at least 1 minute.
  - Ensure proper ventilation during and after application.
  - Check to ensure the product is not past its expiration date.
- Prepare a bleach solution by mixing:
  - 5 tablespoons (1/3rd cup) of 5.25%–8.25% bleach per gallon of room temperature water or
  - 4 teaspoons of 5.25%–8.25% bleach per quart of room temperature water
- Bleach solutions will be effective for disinfection up to 24 hours.

Caution: Never mix household bleach with ammonia or any other disinfectant. This can cause vapors that may be very dangerous to breathe in.

- **Do not stockpile disinfectants or other supplies.** This can result in shortages of appropriate products for others to use in critical situations and supplies can degrade and become less effective if stored for long periods of time.

Follow safety precautions when using disinfectants

Always read and follow the directions on the label to ensure safe and effective use.

- Wear skin protection and consider eye protection for potential splash hazards
- Ensure adequate ventilation
- Use no more than the amount recommended on the label
- Use water at room temperature for dilution (unless stated otherwise on the label)
- Avoid mixing chemical products
- Label diluted cleaning solutions
- Store and use chemicals out of the reach of children and pets

You should never eat, drink, breathe or inject these products into your body or apply directly to your skin as they can cause serious harm. Do not wipe or bathe pets with these products or any other products that are not approved for animal use.

See EPA's 6 steps for Safe and Effective Disinfectant Use .

Special considerations should be made for people with asthma and they should not be present when cleaning and disinfecting is happening as this can trigger asthma exacerbations. Learn more about reducing asthma triggers.

For more information, see CDC's website on Cleaning and Disinfection for Community Facilities.

COVID-19 cases in the school

A school might need to implement short-term closure procedures regardless of community spread if an infected person has been in a school building. In addition, CDC recommends cleaning and disinfecting the school building thoroughly by:

1. Closing off areas used by the persons with COVID-19 for a significant amount of time. School administrators and staff may define this length of time (usually 15 minutes or longer) based on their specific needs and policies.
2. Waiting as long as practical before beginning cleaning and disinfection to minimize potential for exposure to respiratory droplets.
    - Open outside doors and windows to increase air circulation in the area.
    - If possible, wait up to 24 hours before beginning cleaning and disinfection.
3. Cleaning and disinfecting all areas (e.g., offices, bathrooms, and common areas) used by the person(s) with COVID-19, focusing especially on frequently touched surfaces.
    - Surfaces should be cleaned using soap (or a detergent) and water prior to disinfection.
    - Disinfect with a disinfectant on List N: Disinfectants for use against SARs-CoV-2, the virus that causes COVID-19.

In most instances, a single case of COVID-19 in a school would not warrant closing the entire school. Community spread and how much contact the person with COVID-19 had with others, as well as when such contact took place, need to be considered. These variables should also be considered when determining how long a school, or part of the school, stays closed. Administrators should work with local health officials to determine if temporarily closing the school building is necessary.

Additional key resources:

- CDC's Cleaning and Disinfection for Community Facilities Recommendations
- For more information about cleaning and disinfecting school buses or other transport vehicles, read CDC's guidance for bus transit operators
- Glossary of Key Terms: Close Contact
- How to clean and disinfect if someone is sick
- Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes
- EPA List of disinfectants for use against the virus that causes COVID-19

Hand hygiene: promoting it in your school

The best way to prevent COVID-19 is to avoid being exposed to the virus that causes COVID-19, which is thought to spread mainly from person to person. Another key preventive action you can take is to regularly clean hands. **Cleaning hands at key times with soap and water for at least 20 seconds or using an alcohol-based hand sanitizer with at least 60% alcohol if soap and water is not readily available** is one of the most important steps a person can take to avoid getting sick. This helps prevent a variety of infections because:

- People frequently touch their eyes, nose, and mouth without even realizing it. Germs can get into the body through the mouth, nose, and eyes and make us sick.
- Germs from unwashed hands can be transferred to other objects, like handrails, tabletops, or keyboards, and then be transferred to another person's hands.
- Removing germs through handwashing therefore helps prevent diarrhea and respiratory infections and may even help prevent skin and eye infections.

Teaching people about handwashing helps them and their communities stay healthy. Handwashing can reduce respiratory illnesses, like colds, in the general population by up to 21%. Additionally, school-based programs promoting handwashing and hand hygiene can result in less gastrointestinal and respiratory illnesses and fewer missed school days.

For more information, see CDC's Handwashing: Clean Hands Save Lives website.

Establishing a culture of hand hygiene

- **Teach and reinforce handwashing with soap and water for at least 20 seconds** and increase monitoring to ensure adherence among teachers, students, and staff.

- **Build time into daily routines for students and staff to wash hands**, especially at key times like after bathroom breaks, before lunch, or after playing outside. Take into consideration any additional time students or staff may need to wash their hands while social distancing.
- **Consider making hand sanitizers with at least 60% alcohol available** for teachers, staff, and students. Hand sanitizers can be placed near frequently touched surfaces (e.g., water fountains, doors, shared equipment) and areas where soap and water are not readily available (e.g., cafeterias, classrooms, gyms). Supervise young children under the age of 6 when they use hand sanitizer to prevent swallowing alcohol or contact with eyes.
- **Promote hand hygiene throughout the school** by placing visual cues such as handwashing posters, stickers, and other materials in highly visible areas.
    - Download and print materials
    - Order handwashing materials from CDC for free using CDC-INFO on Demand

Using hand sanitizers to reduce germs on hands

Use hand sanitizer when soap and water are not available

CDC recommends washing hands with soap and water because handwashing reduces the amounts of all types of germs and chemicals on hands. But if soap and water are not available, using a hand sanitizer with at least 60% alcohol can help you avoid getting sick and spreading germs to others.

Soap and water remove all types of germs from hands, while sanitizer acts by killing certain germs on the skin. Although alcohol-based hand sanitizers can quickly reduce the number of germs in many situations, they should be used in the right situations.

When using hand sanitizer, apply the product to the palm of one hand (read the label to learn the correct amount) and rub the product all over the surfaces of your hands until your hands are dry.

Hand sanitizers are less effective than handwashing in some situations

- Alcohol-based hand sanitizers kill the virus that causes COVID-19 when used correctly. However, hand sanitizers do *not* eliminate all types of germs, including some germs that cause diarrhea. Always wash hands with soap and water after using the toilet.
- Hand sanitizers may not be as effective when hands are visibly dirty or greasy. Hands are often dirty or greasy after activities like eating or playing outside.
- Hand sanitizers might not remove harmful chemicals, like pesticides and heavy metals, from hands.

Poisoning caused by hand sanitizers

Swallowing alcohol-based hand sanitizers can cause alcohol poisoning. In fact, **calls to US poison centers for alcohol-based hand sanitizers increased by 36% from 2019 to 2020**.

Prevent accidental poisoning

Hand sanitizers should be stored up, away, and out of sight of children and should be used with adult supervision for children under six years of age.

Get help in case of poisoning

- Call the poison control center, 1-800-222-1222, if you think a child has been poisoned but they are awake and alert; the center can be reached 24 hours a day, 7 days a week.
- Call 911 if you have a poison emergency or a child has collapsed or is not breathing.

Handwashing Resources

Find a variety of resources to help you promote handwashing in schools and at home.

Posters

Suggested uses

- Post in staff bathrooms, cafeteria kitchens, and communal areas such as teachers' lounges, if open.
- Post in student bathrooms and locker rooms.
- Post near classroom sinks.
- Distribute to parents, guardians, and caregivers in electronic or print form and encourage them to post near their sinks at home.

Available in

English
| Spanish | French | Arabic | Bengali | Chinese | Portuguese | Urdu | Haitian Creole

Posters for Children and Teens

Posters for the General Public

Stickers and Mirror Clings

Suggested uses

- Use stickers for classroom rewards.
- Adhere clings to mirrors in school bathrooms or classroom windows.
- Share with parents to print and use at home.

Available in

English | Spanish

Stickers

Mirror Clings

Videos

Suggested uses

- Play on school TVs or screens.
- Distribute to staff to incorporate into lessons about handwashing.
- Distribute to parents to use at home with kids.

Available in

English | Spanish

Videos

Fact Sheets

Suggested uses

- Distribute to staff, parents, and students.
- Post near hand sanitizer dispensers.
- Distribute to parents, guardians, and caregivers in electronic or print form and encourage them to post near their sinks at home.

Available in

English | Spanish | French | Haitian Creole

Fact sheets

Graphics and Social Media Messages

Suggested uses

- Use CDC's graphics and messages when drafting communications about handwashing for staff, parents, or students.
- Promote handwashing on your school or district's social media accounts.

Available in

English | Spanish

Buttons and Badges

Social Media Messages

PSAs and Podcasts

Suggested uses

- Play during school announcements.
- Distribute to staff to incorporate into lessons about handwashing.

Available in

- English

PSAs and podcasts

Additional Resources

For School Administrators

- Preparing K-12 School Administrators for a Safe Return to School in Fall 2020
- Cleaning and Disinfecting: Plan, Prepare, and Respond
- Interim Guidance for Administrators of US K-12 Schools and Child Care Programs
- Strategies for Protecting K-12 School Staff from COVID-19
- Cleaning and Disinfecting Your Facility
- When a confirmed case has entered a school, regardless of community transmission
- Considerations for Schools
  - Promoting Behaviors that Reduce Spread
- COVID-19 Videos
- Flu Guidance for School Administrators
- Flu How to Clean and Disinfect Schools
- MN Department of Health: COVID-19 Cleaning and Disinfecting Guidance for Schools and Child Care Programs
- EPA Guidance for Cleaning and Disinfecting (Public Spaces, Workplaces, Businesses, Schools, and Homes)
- NY Department of Health (Interim cleaning and disinfection guidance for primary and secondary schools)
- AAPCC (American Association of Poison Control Centers) Daycare and School Safety
- NPIC (National Pesticide Information Center) Antimicrobial Fact Sheet
- CA Department of Public Health: Healthy Cleaning & Asthma-Safer Schools: A How-To Guide
- CDPHE Environmental Cleaning Guidance for COVID-19

For Educators

- Health Education Curriculum Analysis Tool (HECAT)
- Key Times to Clean Toys in Childcare Programs
- Key Times to Sanitize Toys in Childcare Programs
- ACI's (American Cleaning Institute) Cleaning Tips for Teachers
- WA Department of Health's Classroom Cleaning Tips for Teachers
- Handwashing Posters for Children, Teens, and Adults
- Handwashing Stickers and Mirror Clings
- CDC-INFO Handwashing Materials (Order FREE)
- CDC Hand Hygiene FAQs

For Other School Staff

- American Federation of Teachers (Resource for Custodians and Others)
- American Federation of Teachers (Resources for School Bus Personnel)
- TN Department of Education (Tips for School Buses)

For Students

- Toolkit for Youth and Young Adults: 15 to 21
- K-12 Students: Did You Wash Your Hands?
- K-12 Students: Don't Feel Well? Stay Home When You Are Sick
- K-12 Students: Don't Let Your Germs Go for a Ride
- K-12 Students: Class Rules
- CDC Hand Hygiene FAQs
- Calling All Kids: Be a Handwashing Expert!
- Lysol's Healthy Habits: In-Classroom Lesson Plans (Pre-K through Grade 5)

For Parents

- How to Clean and Disinfect Your Home if Someone Has COVID-19
- Key Times to Clean and Disinfect Your Home
- Handwashing: A Family Activity
- CDC Hand Hygiene FAQs
- ACI's (American Cleaning Institute) Cleaning Tips for Parents & Caregivers
- Canadian Paediatric Society: Caring for Kids (Handwashing for Parents and Children)
- AAPCC Poison Safety Checklist (Handout for Teachers)
- Stanford Children's Health: Teaching Kids to Wash Their Hands
- Lysol's Resources for Teaching at Home: Handwashing Lesson Plans & Home Activities (Pre-K through Grade 5)

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