



## COVID-19

# Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes

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[Print](#)

This guidance is intended for all Americans, whether you own a business, run a school, or want to ensure the cleanliness and safety of your home. Opening America requires all of us to move forward together by practicing social distancing and other [daily habits](#) to reduce our risk of exposure to the virus that causes COVID-19. Opening the country also strongly relies on public health strategies, including increased testing of people for the virus, social distancing, isolation, and keeping track of how someone infected might have infected other people. This plan is part of the larger [United States Government plan](#) [↗](#) and focuses on cleaning and disinfecting public spaces, workplaces, businesses, schools, and can also be applied to your home.

Cleaning and disinfecting public spaces including your workplace, school, home, and business will require you to:

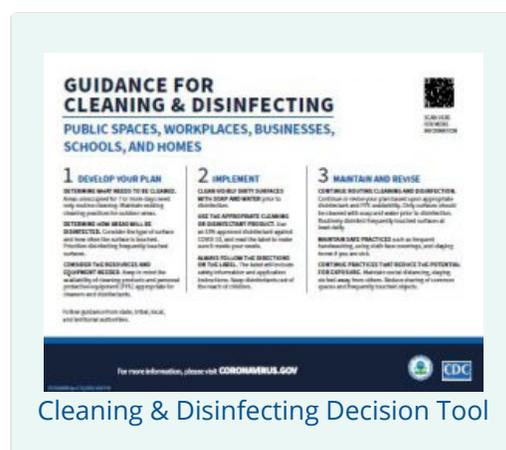
- Develop your plan
- Implement your plan
- Maintain and revise your plan

Reducing the risk of exposure to COVID-19 by cleaning and disinfection is an important part of opening public spaces that will require careful planning. Every American has been called upon to slow the spread of the virus through social distancing and prevention hygiene, such as frequently washing your hands and wearing masks. Everyone also has a role in making sure our communities are as safe as possible to open and remain open.

The virus that causes COVID-19 can be killed if you use the right products. EPA has compiled a list of disinfectant products that can be used against COVID-19, including ready-to-use sprays, concentrates, and wipes. Each product has been shown to be effective against viruses that are harder to kill than viruses like the one that causes COVID-19.

This document provides a general framework for cleaning and disinfection practices. The framework is based on doing the following:

1. Normal routine cleaning with soap and water will decrease how much of the virus is on surfaces and objects, which



reduces the risk of exposure.

2. Disinfection using [EPA List N: Disinfectants for Coronavirus \(COVID-19\)](#)  can also help reduce the risk. Frequent disinfection of surfaces and objects touched by multiple people is important.
3. If products on [EPA List N: Disinfectants for Coronavirus \(COVID-19\)](#)  are not available, bleach solutions can be used if appropriate for the surface and will be effective against coronaviruses when properly diluted.
  - Most household bleach contains 5%–9% sodium hypochlorite. Do not use a bleach product if the percentage is not in this range or is not specified, such as some types of laundry bleach or splash-less bleach as these are not appropriate for disinfection.
  - Follow the directions on the bleach bottle for preparing a diluted bleach solution. If your bottle does not have directions, you can make a bleach solution for disinfecting by mixing:
    - 5 tablespoons (1/3 cup) of bleach per gallon of room temperature water OR
    - 4 teaspoons of bleach per quart of room temperature water
  - Follow the manufacturer’s application instructions for the surface. If instructions are not available, leave the diluted bleach solution on the surface for at least 1 minute before removing or wiping. This is known as the “contact time” for disinfection. The surface should remain visibly wet during the contact time.
  - Ensure proper ventilation during and after application (for example, open windows).
  - Never mix household bleach (or any disinfectants) with any other cleaners or disinfectants. This can cause vapors that may be very dangerous to breathe in.
  - Make a new diluted bleach solution daily. Bleach solutions will not be as effective after being mixed with water for over 24 hours.

**Use chemical disinfectants safely!** Always read and follow the directions on the label of cleaning and disinfection products to ensure safe and effective use.

- Wear gloves and consider glasses or goggles for potential splash hazards to eyes
- Ensure adequate ventilation (for example, open windows)
- Use only the amount recommended on the label
- Use water at room temperature for dilution (unless stated otherwise on the label)
- Label diluted cleaning solutions
- Store and use chemicals out of the reach of children and pets
- Do not mix products or chemicals
- Do not eat, drink, breathe, or inject cleaning and disinfection products into your body or apply directly to your skin as they can cause serious harm
- Do not wipe or bathe pets with any cleaning and disinfection products.

See [EPA’s Six Steps for Safe and Effective Disinfectant Use](#) .

Special considerations should be made for people with asthma. Some cleaning and disinfection products can trigger asthma. [Learn more about reducing your chance of an asthma attack while disinfecting to prevent COVID-19.](#)

Links to specific recommendations for many public spaces that use this framework, can be found at the end of this document.

*It's important to continue to follow federal, state, tribal, territorial, and local guidance for opening America.*

## A Few Important Reminders about Coronaviruses and Reducing the Risk of Exposure:

- 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.
- Normal routine cleaning with soap and water removes germs and dirt from surfaces. It lowers the risk of spreading COVID-19 infection.
- Disinfectants kill germs on surfaces. By killing germs on a surface after cleaning, you can further lower the risk of spreading infection. [EPA-approved disinfectants](#) are an important part of reducing the risk of exposure to COVID-19. If products on [EPA List N: Disinfectants for Coronavirus \(COVID-19\)](#) are not available, bleach solutions can be used if appropriate for the surface and will be effective against coronaviruses when properly diluted. Most household bleach contains 5%–9% sodium hypochlorite. Do not use a bleach product if the percentage is not in this range or is not specified, such as some types of laundry bleach or splash-less bleach as these are not appropriate for disinfection. **Follow the directions on the bleach bottle for preparing a diluted bleach solution.** If your bottle does not have directions, you can make a bleach solution for disinfecting by mixing:
  - 5 tablespoons (1/3 cup) of bleach per gallon of room temperature water OR
  - 4 teaspoons of bleach per quart of room temperature water.
- Make a new diluted bleach solution daily. Bleach solutions will not be as effective after being mixed with water for over 24 hours.
- Store and use disinfectants in a responsible and appropriate manner according to the label. Do not mix bleach or other cleaning and disinfection products together–this can cause fumes that may be very dangerous to breathe in. Keep all disinfectants out of the reach of children.
- Do not overuse or stockpile disinfectants or other supplies. This can result in shortages of appropriate products for others to use in critical situations.
- Always wear gloves appropriate for the chemicals being used when you are cleaning and disinfecting. Additional personal protective equipment (PPE) may be needed based on setting and product. For more information, see [CDC's website on Cleaning and Disinfection for Community Facilities](#).
- Practice social distancing, wear facial coverings, and follow proper prevention hygiene, such as washing your hands frequently and using alcohol-based (at least 60% alcohol) hand sanitizer when soap and water are not available.

If you oversee staff in a workplace, your plan should include considerations about the safety of custodial staff and other people who are carrying out the cleaning or disinfecting. These people are at increased risk of being exposed to the virus and to any toxic effects of the cleaning chemicals. These staff should wear appropriate PPE for cleaning and disinfecting. To protect your staff and to ensure that the products are used effectively, staff should be instructed on how to apply the disinfectants according to the label. For more information on concerns related to cleaning staff, visit the Occupational Safety and Health Administration's website on [Control and Prevention](#).

# Develop Your Plan

Evaluate your workplace, school, home, or business to determine what kinds of surfaces and materials make up that area. Most surfaces and objects will just need normal routine cleaning. Frequently touched surfaces and objects like light switches and doorknobs will need to be cleaned and then disinfected to further reduce the risk of germs on surfaces and objects.

- First, clean the surface or object with soap and water.
- Then, disinfect using an [EPA-approved disinfectant](#) .
- If an EPA-approved disinfectant is unavailable, you can use 1/3 cup of 5.25%–8.25% bleach added to 1 gallon of water, or 70% alcohol solutions to disinfect. Do not mix bleach or other cleaning and disinfection products together. Bleach solutions will be effective for disinfection up to 24 hours. Find additional information at [CDC's website on Cleaning and Disinfecting Your Facility](#).

You should also consider what items can be moved or removed completely to reduce frequent handling or contact from multiple people. Soft and porous materials, such as area rugs and seating, may be removed or stored to reduce the challenges with cleaning and disinfecting them. Find additional opening guidance for cleaning and disinfecting in the [Opening Decision Tool](#) .

It is critical that your plan includes how to maintain a cleaning and disinfecting strategy after opening. Develop a flexible plan with your staff or family, adjusting the plan as federal, state, tribal, territorial, or local guidance is updated and if your specific circumstances change.

## Determine what needs to be cleaned

Some surfaces only need to be cleaned with soap and water. For example, surfaces and objects that are not frequently touched should be cleaned and do not require additional disinfection. Additionally, disinfectants should typically not be applied on items used by children, especially any items that children might put in their mouths. Many disinfectants are toxic when swallowed. In a household setting, cleaning toys and other items used by children with soap and water is usually sufficient. Find more information on cleaning and disinfection toys and other surfaces in the childcare program setting at [CDC's Guidance for Childcare Programs that Remain Open](#).

These questions will help you decide which surfaces and objects will need normal routine cleaning.

## Is the area outdoors?

Outdoor areas generally require normal routine cleaning and do not require disinfection. Spraying disinfectant on sidewalks and in parks is not an efficient use of disinfectant supplies and has not been proven to reduce the risk of COVID-19 to the public. You should maintain existing cleaning and hygiene practices for outdoor areas.

The targeted use of disinfectants can be done effectively, efficiently and safely on outdoor hard surfaces and objects frequently touched by multiple people. Certain outdoor areas and facilities, such as bars and restaurants, may have additional requirements. More information can be found on FDA's website on [Food Safety and the Coronavirus Disease 2019 \(COVID-19\)](#) .

There is no evidence that the virus that causes COVID-19 can spread directly to humans from water in pools, hot tubs or spas, or water play areas. Proper operation, maintenance, and disinfection (for example, with chlorine or bromine) of pools, hot tubs or spas, and water playgrounds should kill the virus that causes COVID-19. However, there are additional concerns with outdoor areas that may be maintained less frequently, including playgrounds, or other facilities located within local, state, or national parks. For more information, visit CDC's website on [Visiting Parks & Recreational Facilities](#).

## Has the area been unoccupied for the last 7 days?

If your workplace, school, or business has been unoccupied for 7 days or more, it will only need your normal routine cleaning to open the area. This is because the virus that causes COVID-19 has not been shown to survive on surfaces longer than this time.

There are many public health considerations, not just COVID-19 related, when opening public buildings and spaces that have been closed for extended periods. For example, take measures to ensure the [safety of your building water system](#). It is not necessary to clean ventilation systems, other than routine maintenance, as part of reducing risk of corona viruses. For healthcare facilities, additional guidance is provided on [CDC's Guidelines for Environmental Infection Control in Health-Care Facilities](#) .

## Determine what needs to be disinfected

Following your normal routine cleaning, you can disinfect frequently touched surfaces and objects using a product from [EPA's list of approved products that are effective against COVID-19](#). 

These questions will help you choose appropriate disinfectants.

## Are you cleaning or disinfecting a hard and non-porous material or item like glass, metal, or plastic?

Consult [EPA's list of approved products for use against COVID-19](#) . This list will help you determine the most appropriate disinfectant for the surface or object. You can use diluted household bleach solutions if appropriate for the surface. Pay special attention to the personal protective equipment (PPE) that may be needed to safely apply the disinfectant and the manufacturer's recommendations concerning any additional hazards. Keep all disinfectants out of the reach of children. Please visit CDC's website on [How to Clean and Disinfect](#) for additional details and warnings.

Examples of frequently touched surfaces and objects that will need routine disinfection following opening are:

- tables,
- doorknobs,
- light switches,
- countertops,
- handles,
- desks,
- phones,

- keyboards,
- toilets,
- faucets and sinks,
- gas pump handles,
- touch screens, and
- ATM machines

Each business or facility will have different surfaces and objects that are frequently touched by multiple people. Appropriately disinfect these surfaces and objects. For example, transit stations have [specific guidance](#) for application of cleaning and disinfection.

## Are you cleaning or disinfecting a soft and porous material or items like carpet, rugs, or seating in areas?

Soft and porous materials are generally not as easy to disinfect as hard and non-porous surfaces. [EPA has listed a limited number of products approved for disinfection for use on soft and porous materials](#) [↗](#). Soft and porous materials that are not frequently touched should only be cleaned or laundered, following the directions on the item's label, using the warmest appropriate water setting. Find more information on [CDC's website on Cleaning and Disinfecting Your Facility](#) for developing strategies for dealing with soft and porous materials.

## Consider the resources and equipment needed

Keep in mind the availability of cleaning and disinfection products and appropriate PPE. Always wear gloves appropriate for the chemicals being used for routine cleaning and disinfecting. Follow the directions on the disinfectant label for additional PPE needs. In specific instances, personnel with specialized training and equipment may be required to apply certain disinfectants such as fumigants or fogs. For more information on appropriate PPE for cleaning and disinfection, see [CDC's website on Cleaning and Disinfection for Community Facilities](#).

## Implement Your Plan

Once you have a plan, it's time to take action. Read all manufacturer's instructions for the cleaning and disinfection products you will use. Put on your gloves and other required personal protective equipment (PPE) to begin the process of cleaning and disinfecting.

## Clean visibly dirty surfaces with soap and water

Clean surfaces and objects using soap and water prior to disinfection. Always wear gloves appropriate for the chemicals being used for routine cleaning and disinfecting. Follow the directions on the disinfectant label for additional PPE needs. When you finish cleaning, remember to wash hands thoroughly with soap and water.

Clean or launder soft and porous materials like seating in an office or coffee shop, area rugs, and carpets. Launder items according to the manufacturer's instructions, using the warmest temperature setting possible and dry items completely.

# Use the appropriate cleaning or disinfectant product

[EPA approved disinfectants](#) , when applied according to the manufacturer's label, are effective for use against COVID-19. Follow the instructions on the label for all cleaning and disinfection products for concentration, dilution, application method, contact time and any other special considerations when applying.

## Always follow the directions on the label

Follow the instructions on the label to ensure safe and effective use of the product. Many product labels recommend keeping the surface wet for a specific amount of time. The label will also list precautions such as wearing gloves and making sure you have good ventilation during use of the product. Keep all disinfectants out of the reach of children.

## Maintain and Revise Your Plan

Take steps to reduce your risk of exposure to the virus that causes COVID-19 during daily activities. [CDC provides tips](#) to reduce your exposure and risk of acquiring COVID-19. Reducing exposure to yourself and others is a shared responsibility. Continue to update your plan based on updated guidance and your current circumstances.

## Continue routine cleaning and disinfecting

Routine cleaning and disinfecting are an important part of reducing the risk of exposure to COVID-19. Normal routine cleaning with soap and water alone can reduce risk of exposure and is a necessary step before you disinfect dirty surfaces.

Surfaces frequently touched by multiple people, such as door handles, desks, phones, light switches, and faucets, should be cleaned and disinfected at least daily. More frequent cleaning and disinfection may be required based on level of use. For example, certain surfaces and objects in public spaces, such as shopping carts and point of sale keypads, should be cleaned and disinfected before each use.

Consider choosing a different disinfectant if your first choice is in short supply. Make sure there is enough supply of gloves and appropriate personal protective equipment (PPE) based on the label, the amount of product you will need to apply, and the size of the surface you are treating.

## Maintain safe behavioral practices

We have all had to make significant behavioral changes to reduce the spread of COVID-19. To open America, we will need to continue these practices:

- social distancing (specifically, staying 6 feet away from others when you must go into a shared space)
- frequently washing hands or use alcohol-based (at least 60% alcohol) hand sanitizer when soap and water are not available
- wearing masks
- avoiding touching eyes, nose, and mouth

- staying home when sick
- cleaning and disinfecting frequently touched objects and surfaces

It's important to continue to follow federal, state, tribal, territorial, and local guidance for opening America. Check this resource for [updates on COVID-19](#) . This will help you change your plan when situations are updated.

## Consider practices that reduce the potential for exposure

It is also essential to change the ways we use public spaces to work, live, and play. We should continue thinking about our safety and the safety of others.

To reduce your exposure to or the risk of spreading COVID-19 after opening your business or facility, consider whether you need to touch certain surfaces or materials. Consider wiping public surfaces before and after you touch them. These types of behavioral adjustments can help reduce the spread of COVID-19. There are other resources for more information on [COVID-19](#)  and how to [Prevent Getting Sick](#).

Another way to reduce the risk of exposure is to make long-term changes to practices and procedures. These could include reducing the use of porous materials used for seating, leaving some doors open to reduce touching by multiple people, opening windows to improve ventilation, or removing objects in your common areas, like coffee creamer containers. There are many other steps that businesses and institutions can put into place to help reduce the spread of COVID-19 and protect their staff and the public. More information can be found at [CDC's Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission](#) .

## Conclusion

Opening America requires all of us to move forward together using recommended best practices and maintaining safe daily habits in order to reduce our risk of exposure to COVID-19. Remember: We're all in this together!

## Additional resources with more specific recommendations.

### Healthcare Setting

- Long-term Care Facilities, Nursing Homes
  - [Infection Control in Healthcare Settings](#)
  - [Using Personal Protective Equipment](#)
  - [Hand Hygiene](#)
  - [Interim Guidance for Infection Prevention](#)
  - [Preparedness Checklist](#) 
  - [Things Facilities Should Do Now to Prepare for COVID-19](#)
  - [When there are Cases in the Facility](#)
- Dialysis Facilities
  - [Infection Control in Healthcare Settings](#)

- Using Personal Protective Equipment
- Hand Hygiene
- Interim guidance for Outpatient Hemodialysis Facilities
- Patient Screening
- Blood and Plasma Facilities
  - Infection control in Healthcare Settings
  - Infection Control and Environmental Management
  - Using Personal Protective Equipment
  - Hand Hygiene
  - Interim Guidance for Blood and Plasma Collection Facilities
- Alternate Care Sites
  - Infection Prevention and Control
- Dental Settings
  - Infection control in Healthcare Settings
  - Using Personal Protective Equipment
  - Hand Hygiene
  - Interim Guidance for Dental Settings
- Pharmacies
  - Infection control in Healthcare Settings
  - Using Personal Protective Equipment
  - Hand Hygiene
  - Interim Guidance for Pharmacies
  - Risk-Reduction During Close-Contact Services
- Outpatient and ambulatory care facilities
  - Infection control in Healthcare Settings
  - Using Personal Protective Equipment
  - Hand Hygiene
  - Interim Guidance for Outpatient & Ambulatory Care Settings
- Postmortem Care
  - Using Personal Protective Equipment
  - Hand Hygiene
  - Collection and Submission of Postmortem Samples
  - Cleaning and Waste Disposal
  - Transportation of Human Remains

## Community Locations

- Critical Infrastructure Employees

- [Interim Guidance for Critical Infrastructure Employees](#)
    - [Cleaning and Disinfecting your Facility](#)
- Schools and childcare programs
  - [K-12 and Childcare Interim Guidance](#)
  - [Cleaning and Disinfecting your Facility](#)
  - [FAQ for Administrators](#)
  - [Parent and Teacher Checklist](#)
- Colleges and universities
  - [Interim Guidance for Colleges & Universities](#)
  - [Cleaning and Disinfecting your Facility](#)
  - [Guidance for Student Foreign Travel](#)
  - [Considerations for Administrators](#)
- Gatherings and community events
  - [Interim Guidance for Mass Gatherings and Events](#)
  - [Election Polling Location Guidance](#)
  - [Events FAQ](#)
- Community- and faith-based organizations
  - [Interim Guidance for Organizations](#)
  - [Cleaning and Disinfecting your Facility](#)
- Businesses
  - [Interim Guidance for Businesses](#)
- Parks & Rec Facilities
  - [Guidance for Administrators of Parks](#)
- Law Enforcement
  - [What Law Enforcement Personnel Need to Know about COVID-19](#)
- Homeless Service Providers
  - [Interim Guidance for Homeless Service Providers](#)
- Retirement Homes
  - [Interim Guidance for Retirement Communities](#)
  - [FAQ for Administrators](#)
- Correction & Detention Facilities
  - [Interim Guidance for Correction & Detention Facilities](#)
  - [FAQ for Administrators](#)

## Home Setting

- Preventing Getting Sick
  - [How to Protect Yourself and Others](#)

- [Cleaning and Disinfecting your Home](#)
- [Tribal – How to Prevent the Spread of Coronavirus \(COVID-19\) in Your Home](#)  
- Running Errands
  - [Shopping for Food and Other Essential Items](#)
  - [Accepting Deliveries and Takeout](#)
  - [Banking](#)
  - [Getting Gasoline](#)
  - [Going to the Doctor and Pharmacy](#)
- If you are sick
  - [Steps to Help Prevent the Spread of COVID19 if You are Sick](#)

## Transportation

- Ships
  - [Interim Guidance for Ships on Managing Suspected COVID-19](#)
- Airlines
  - [Cleaning Aircraft Carriers](#)
  - [Airline Agents Interim Guidance](#)
- Buses
  - [Bus Transit Operator](#)
- Rail
  - [Rail Transit Operators](#)
  - [Transit Station Workers](#)
- EMS Transport Vehicles
  - [Interim Guidance for EMS](#)
- Taxis and Rideshares
  - [Keeping Commercial Establishments Safe](#) 

## Restaurants & Bars

- [Best Practices from FDA](#) 

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