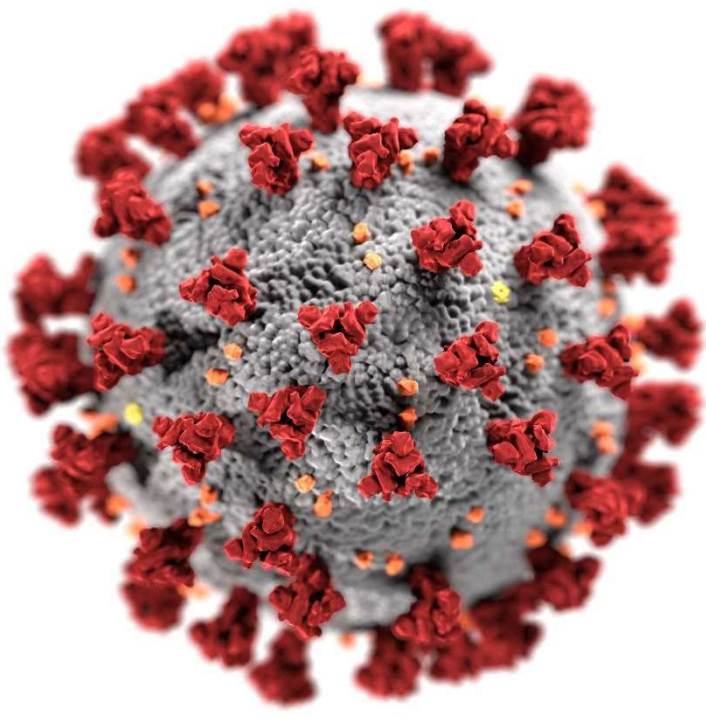


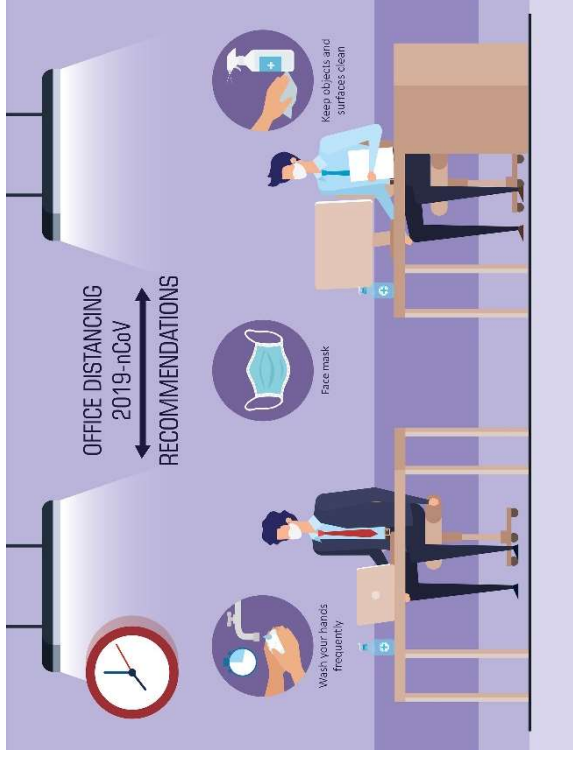
Best Safety and Hygiene Practices for Public Workspaces in the COVID-19 Environment - Webinar



cdc.gov/coronavirus

Outline of presentation

- Coronavirus Disease 2019 (COVID-19)
 - History
 - Overview of symptoms
 - What You Should Do
- Recommendations



Disclaimer

- The information covered in this training presentation is not exhaustive and it is meant to convey some critical information for managers to consider when developing plans for continuing operations in the setting of COVID-19 occurring among workers or in the surrounding community
- For full guidance and information, please consult COVID-19 Employer Information for Office Buildings and Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019 (COVID-19), May 2020 guidelines :
<https://www.cdc.gov/coronavirus/2019-ncov/community/office-buildings.html>
- and
<https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html>
- The information in this presentation is current as of June 15, 2020



COVID-19: How it spreads

- The virus is thought to spread mainly from person to person.
 - Between people who are in close contact with one another (within about 6 feet)
 - Through respiratory droplets produced when an infected person coughs or sneezes or talks
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
- Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.



COVID-19: Symptoms

Symptoms may include

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- Sore throat
- New loss of taste or smell
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

Estimated incubation period

- 2 to 14 days

Seek medical care immediately if you have emergency warning signs, such as:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face



COVID-19: Complications

Wide range of illness severity has been reported

- Mild to severe illness
- Can result in death

Complications may include

- Pneumonia
- Respiratory failure
- Multisystem organ failure

Resources

- [Symptoms and Testing](#)
- [Clinical Guidance](#)



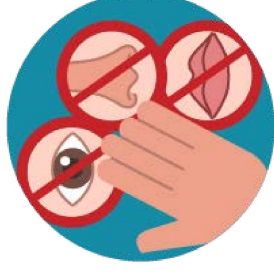
What You Should Do



COVID-19: Prevention

Everyday preventive actions

- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Avoid close contact with others, including people who are sick.
- Stay home as much as possible, especially when you are sick.
- When in public, wear a cloth face covering that covers your mouth and nose.
- Cover your cough or sneeze with a tissue, then throw it away.
- Clean and disinfect frequently touched objects and surfaces.
- Wash your hands often with soap and water for at least 20 seconds.
 - Use an alcohol-based hand sanitizer with at least 60% alcohol if soap and water are not readily available.



Cloth Face Coverings

- CDC recommends wearing [cloth face coverings](#) in public settings.
- Cloth face coverings can help people who may have the virus and do not know it from spreading it to others.
- Cloth face coverings should:
 - Fit snugly but comfortably against face
 - Be secured with ties or ear loops
 - Include multiple layers of fabric
 - Allow for breathing without restriction
 - Be able to be laundered and machine dried without damage or change to shape



COVID-19: What to do if you are sick

- Stay home. Most people recover at home without needing medical care.
- Stay away from people as much as possible.
- Wear a cloth face covering over your nose and mouth if you must be around other people, even at home.
- Keep your distance and cover your coughs and sneezes if you must be around other people.
- Clean your hands often.
- Avoid sharing personal household items.
- Clean and disinfect frequently touched objects and surfaces.
- Monitor your symptoms for emergency warning signs, including trouble breathing.



Recommendations for Building Managers



Check the building to see if it's ready for occupancy

- Before resuming business operations, check the building to see if it's ready for occupancy.
- Ensure that ventilation systems in your facility operate properly. For building heating, ventilation, and air conditioning (HVAC systems) that have been shut down or on setback, review new construction start-up guidance provided in:
 - [ASHRAE Standard 180-2018](#),
 - [Standard Practice for the Inspection and Maintenance of Commercial Building HVAC Systems](#).



Check the building to see if it's ready for occupancy (Cont.)

- Increase circulation of outdoor air as much as possible by opening windows and doors, using fans, and other methods.
 - Do not open windows and doors if doing so poses a safety or health risk for current or subsequent occupants, including children (e.g., allowing outdoor environmental contaminants including carbon monoxide, molds, or pollens into the building).
- Evaluate the building and its mechanical and life safety systems to determine if the building is ready for occupancy.
 - Check for hazards associated with prolonged facility shutdown such as [mold growth](#), [rodents or pests](#), or [issues with stagnant water systems](#), and take appropriate remedial actions.



Identify where and how workers might be exposed

- Employers are responsible for providing a [safe and healthy workplace](#).
 - Conduct a thorough [hazard assessment](#) of the workplace to identify potential workplace hazards that could increase risks for COVID-19 transmission.
 - Identify work and common areas where employees could have close contact (within 6 feet) with others — for example meeting rooms, break rooms, restaurant, cafeteria, locker rooms, check-in areas, waiting areas, exhibit halls, and routes of entry and exit.

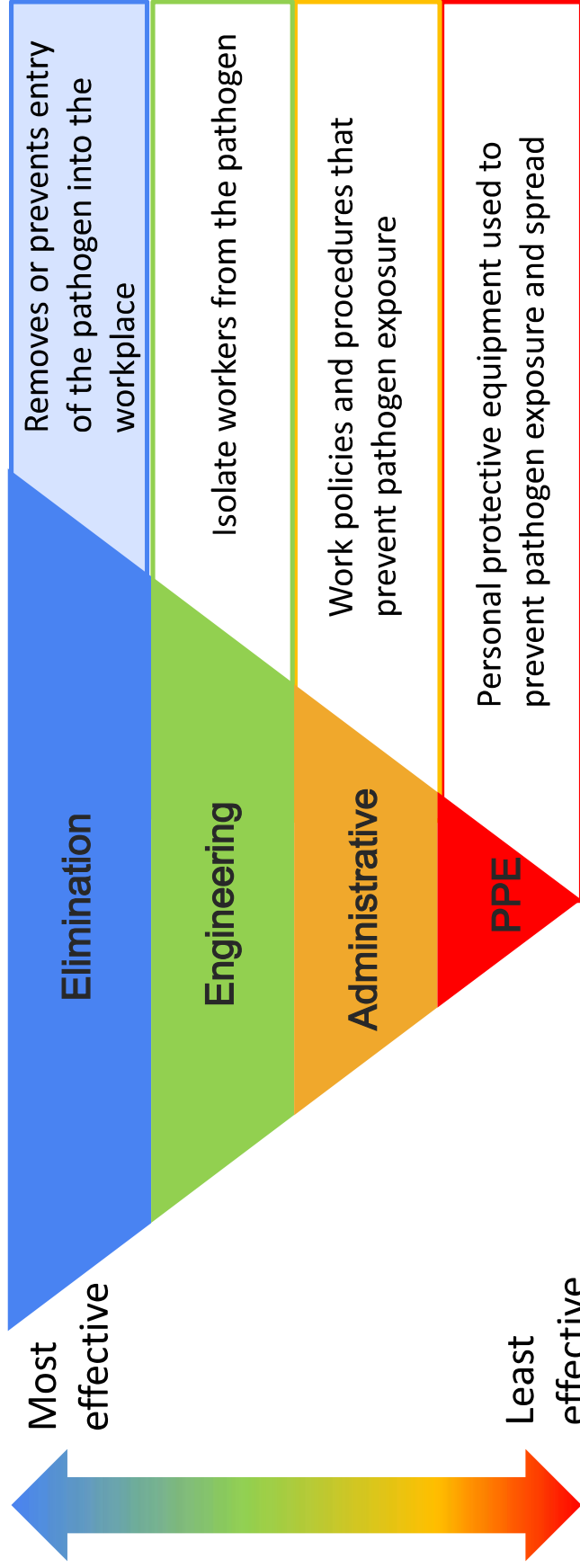


Identify where and how workers might be exposed (Cont.)

- Include all employees in the workplace in communication plans — for example management, staff, utility employees, relief employees, janitorial staff, maintenance staff, and supervisory staff.
- If contractors are employed in the workplace, develop plans to communicate with the contracting company regarding modifications to work processes and requirements for the contractors to prevent transmission of COVID-19.



COVID-19: Hierarchy of Controls



Engineering controls: Isolate workers from the hazard

- [Modify or adjust seats, furniture, and workstations](#) to maintain social distancing of 6 feet between employees.
 - Install transparent shields or other physical barriers where possible to separate employees and visitors where social distancing is not an option.
 - Arrange reception or other communal seating area chairs by turning, draping (covering chair with tape or fabric so seats cannot be used), spacing, or removing chairs to maintain social distancing.



Engineering controls: Isolate workers from the hazard (Cont.)

- Use methods to physically separate employees in all areas of the facilities including work areas and other areas such as meeting rooms, break rooms, parking lots, entrance and exit areas, and locker rooms.
 - Use signs, tape marks, or other visual cues such as decals or colored tape on the floor, placed 6 feet apart, to indicate where to stand when physical barriers are not possible.
 - Replace high-touch communal items, such as coffee pots, water coolers, and bulk snacks, with alternatives such as pre-packaged, single-serving items.



S O C I A L D I S T A N C I N G



Engineering controls: Isolate workers from the hazard (Cont.)

- Take steps to improve ventilation in the building:
 - Increase the percentage of outdoor air (e.g., using economizer modes of HVAC operations) potentially as high as 100% (first verify compatibility with HVAC system capabilities for both temperature and humidity control as well as compatibility with outdoor/indoor air quality considerations).
 - Increase total airflow supply to occupied spaces, if possible.
 - Disable demand-control ventilation (DCV) controls that reduce air supply based on temperature or occupancy.



Engineering controls: Isolate workers from the hazard (Cont.)

- Consider using natural ventilation (i.e., opening windows if possible and safe to do so) to increase outdoor air dilution of indoor air when environmental conditions and building requirements allow.
- Improve central air filtration:
 - [Increase air filtration](#) to as high as possible (MERV 13 or 14) without significantly diminishing design airflow.
 - Inspect filter housing and racks to ensure appropriate filter fit and check for ways to minimize filter bypass
- Consider running the building ventilation system even during unoccupied times to maximize dilution ventilation.



Engineering controls: Isolate workers from the hazard (Cont.)

- [Generate clean-to-less-clean air movement](#) by re-evaluating the positioning of supply and exhaust air diffusers and/or dampers and adjusting zone supply and exhaust flow rates to establish measurable pressure differentials.
- Have staff work in areas served by “clean” ventilation zones that do not include higher-risk areas such as visitor reception or exercise facilities (if open).



Engineering controls: Isolate workers from the hazard (Cont.)

- Consider using portable high-efficiency particulate air (HEPA) fan/filtration systems to help [enhance air cleaning](#) (especially in higher risk areas).
- Ensure exhaust fans in restroom facilities are functional and operating at full capacity when the building is occupied.
- Consider using [ultraviolet germicidal irradiation \(UVGI\)](#) as a supplement to help inactivate the virus.



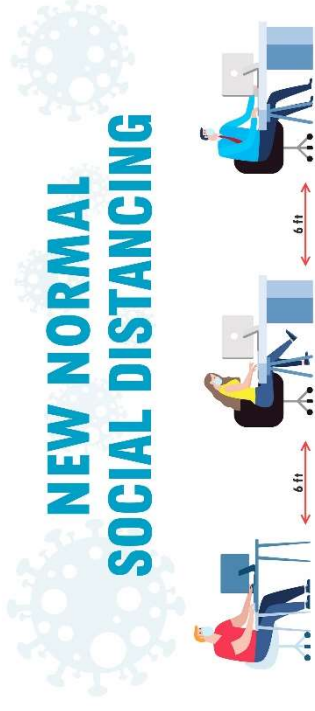
Administrative controls: Change the way people work

- Actively encourage employees who have [symptoms](#) of COVID-19 or who have a sick family member at home with COVID-19 to notify their supervisor and stay home.
 - Employees who appear to have [symptoms](#) upon arrival at work or who become sick during the day should immediately be separated from others, provided a face mask if they are not using one, and sent home with instructions and guidance on how to follow-up with their health care professional.



Administrative controls: Change the way people work (Cont.)

- Sick employees should follow [CDC steps to prevent the spread of COVID-19](#). Employees should not return to work until the criteria to [discontinue home isolation](#) are met, in consultation with their healthcare provider.
- Perform [cleaning and disinfection](#) after persons suspected or confirmed to have COVID-19 have been in the workplace or facility.



Educate employees and supervisors about steps they can take to protect themselves at work

- Communication and training should be easy to understand, be in preferred languages spoken or read by the employees, and include accurate and timely information.
 - Topics should include signs and symptoms of infection, staying home when ill, social distancing, personal protective equipment, hand hygiene practices, and identifying and minimizing potential routes of transmission at work, at home, and in the community.
 - Other topics may be considered based on local context and need.



Restaurants or Cafeterias

- Promote [healthy hygiene practices](#) such as [hand washing](#) and [employees wearing a cloth face covering](#), as feasible
- Intensify [cleaning, sanitization, disinfection](#), and ventilation
- Encourage [social distancing](#) and enhance spacing at establishments including by encouraging drive-through, delivery, curbside pick up, spacing of tables/stools, limiting party sizes and occupancy, avoiding self-serve stations, restricting employee shared spaces, rotating or staggering shifts, if feasible
- Train all employees on health and safety protocols



Visitor Viewing Areas

- Install transparent shields or other barriers where social distancing is not an option (e.g., ticket counters).
 - Encourage on-line ticket purchases
- Use visual cues such as floor markings and signs to encourage physical distancing.
- Remove or strategically space chairs in waiting areas to discourage social gathering and maintain social distancing.
- Only allow a certain number of visitors into various areas. A door greeter can assist by managing the flow of visitors.
- Implement one-way traffic patterns.




Retail Areas

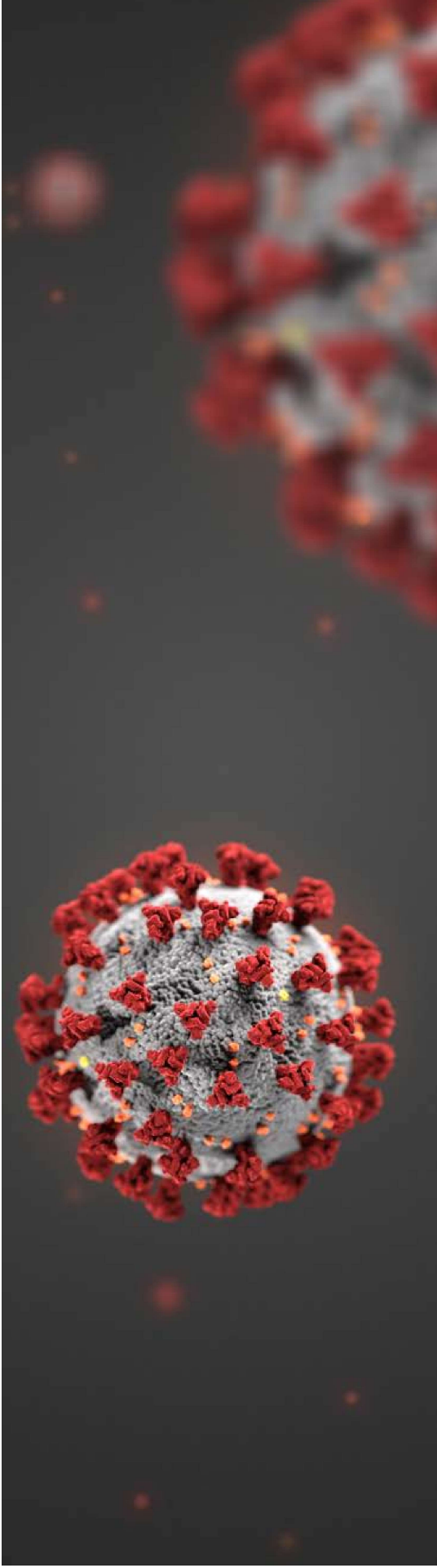
- Install transparent shields or other barriers where social distancing is not an option
- Encourage customers to use touchless payment options. Minimize handling cash, credit cards, reward cards, and mobile devices, where possible.
- When exchanging paper and coin money:
 - Ask customers to place cash on the counter rather than directly into your hand.
 - Place money directly on the counter when providing change.
- Clean and disinfect frequently touched surfaces such as cash registers, payment terminals, and countertops on a routine basis.





Where to get more information

- [COVID-19 Employer Information for Office Buildings](#)
 - [CDC Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)
 - [CDC Resuming Business Toolkit](#)
 - [CDC COVID-19](#)
 - [NIOSH COVID-19 Workplace Safety and Health Topic](#)
 - [OSHA COVID-19](#)
 - [OSHA Guidelines on Preparing Workplaces for COVID](#)
 - [AIHA Reopening: Guidance for General Office Settings](#)
 - [Building Owners & Managers Association International \(BOMA\): Getting Back to Work: Preparing Buildings for Re-Entry Amid COVID-19](#)
- 



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



**BEST SAFETY AND HYGIENE PRACTICES FOR
PUBLIC WORKSPACES IN THE COVID-19
ENVIRONMENT -
WEBINAR**

Practical Considerations

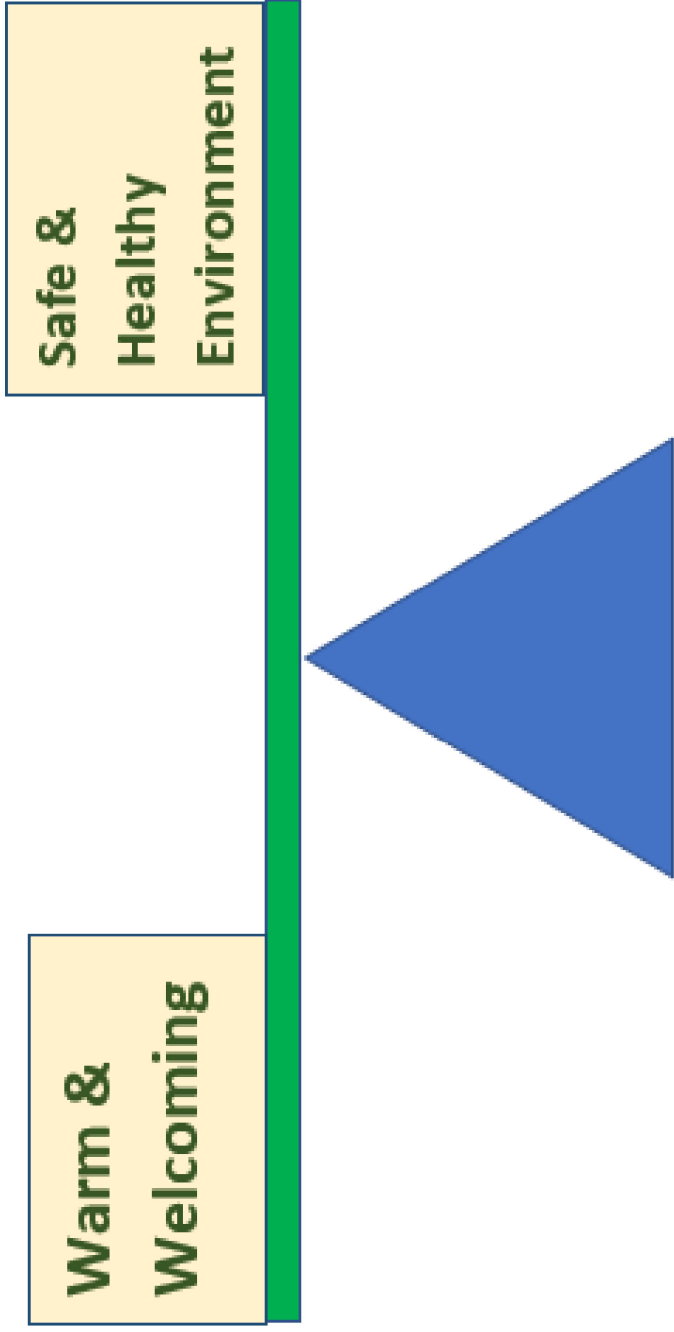
Objectives

- Discuss measures to be taken in preparation of re-opening facilities
- Overview of controls
- Present types of controls that are available
- Identify concerns that should be considered when choosing controls

Disclaimer

- The information covered in this training presentation is not exhaustive. It is meant to convey some important information for those responsible for managing public workspaces in the COVID-19 Environment.
- COVID-19 is a novel corona virus, and as such there is still much that is unknown. The research community is constantly discovering new information.
- Inclusion of a product in this presentation does not constitute an endorsement by the presenter. Products shown are purely to provide examples of devices that are commercially available.

A DELICATE BALANCE



Re-opening Facility Preparation

- If the building has been closed for more than 7 days, it does not need to be disinfected for COVID-19. COVID-19 on surfaces has not been found to survive that long.
- Make sure that the building is clean, and that the ventilation is operating optimally.
- Check for any water intrusion from roof or wall leaks or HVAC condensation; look for “unsightly brown or black spots on walls or ceilings” .
- Make sure that cooling towers and fountains have been treated to prevent legionella, especially if they had been turned off.

Establish Procedures and Train/Prepare Employees

- Entry procedure to promote social distancing
 - *Reservations/Appointments?*
 - *Tickets?*
 - *Queues with monitoring?*
- Communicate that masks are needed to enter the premises
 - *Establish a procedure to be used if a member of the public cannot wear a mask for medical reasons*
- On-line reservations or tickets
 - *Include an “I agree to wear a face covering while on the premises” statement to be checked by individuals making arrangement.*
 - *Include information on where those, who for medical reasons cannot wear a mask, can learn what alternatives are available to them.*

Route of Exposure – Respiratory System

- Spread through respiratory droplets released when an infected person talks, coughs or sneezes
 - Droplets can travel a significant distance. Physical separation of >6 feet is generally considered safe
 - Airborne droplets can land in another person's respiratory system and cause infection
- Hand contact with COVID-19 contaminated surfaces
 - Virus is introduced into the respiratory system by touching nose, mouth or eyes
 - COVID-19 is not absorbed through skin
 - There is no credible evidence that COVID-19 is spread by foot-wear.

Face Coverings/Masks

- Cloth face coverings are not considered personal protective equipment.
- They may prevent people, including those who don't know they have COVID-19, from spreading it to others but may not protect the wearers from exposure to the virus that causes COVID-19.
- Some people cannot wear masks for medical reasons. Even cloth face coverings can create enough resistance to be detrimental to some people with respiratory/pulmonary problems. People with claustrophobia may also have difficulty wearing a face covering.
- Extra masks in adult and child sizes should be available for both employees and patrons, just in case someone's mask becomes damaged or something happens to severely soil the mask.

COVID-19 On Surfaces

Material	Time
Plastic	Up to 7 Days
Most Metal	5 Days
Copper	4 Hours
Glass	5 Days
Paper	3 Hours
Currency	4 Days
Wood	4 Days
Fabric	2 Days

Cloth vs. Non-porous Surfaces - Consider the application

- Chairs with high “turn over” – It is much easier to wipe down non-porous surfaces such as vinyl or plastic. Fabrics can be sprayed, however there is a risk that people sitting on the disinfectant could have a reaction or irritation. A sticky note saying CLEANED could be affixed to chairs that have been disinfected.
- Carpet – There has been little credible evidence that COVID-19 is spread via footwear. Again is easier to clean and disinfect solid surfaces.
- Partitions – Partitions installed to protect individuals from COVID-19 should be a surface that is easy to clean and should not depend on the virus becoming inactive naturally.

Clean vs. Sanitize vs. Disinfect

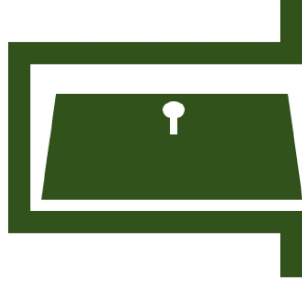
- **Cleaning** is meant to remove dirt and debris
- **Sanitizing** is meant to reduce, not kill, the bacteria, viruses and fungi that may be present.
- **Disinfecting** a surface will “kill” the microscopic organisms as claimed on the label of a particular product.

Disinfecting

- Use EPA-registered products indicated for use against COVID-19 <https://www.epa.gov/coronavirus/disinfectant-use-and-coronavirus-covid-19>
- Read the fine print! Many products can be used for a variety of microbials, make sure that you understand the capabilities of the product you choose.
- Follow directions provided by the manufacturer. **Contact time for effectiveness can vary greatly between product from as little as 30 seconds to 20 minutes!**
- More isn't necessarily better! Excessive use of products can be irritating to eyes and the respiratory system.
- Make sure that the product is compatible with the surface. Some products can react with plastics and metals causing damage.
- Make sure that employees are provided with gloves and have received OSHA Hazard Communication training.

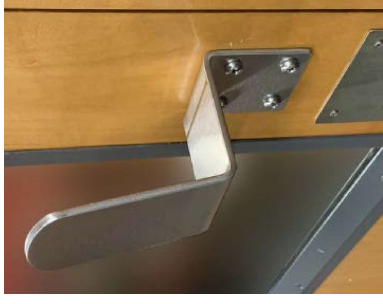
Entry and Exit

- Wherever possible, have separate entry and exit doors so that “traffic” flows in one direction.
- Try to space the public entering to have at least 6 feet between people.
- Have hand sanitizer available inside all entries.
- Disinfect door handles on a regular schedule.



Doors - Examples of Handsfree Solutions

For latches doors there are a number simple, inexpensive options



Place strike on bottom of door, use as foot pull. Mount holder adjacent to strike.

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Restroom Direct

More Examples of Handsfree Solutions - Just a Little More Sophisticated

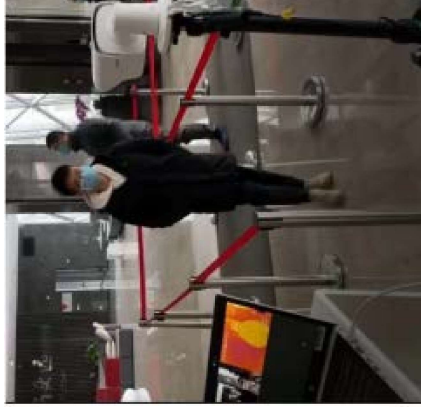
For doors with or without latches



[Restroom Direct](#)

Purleve automatically advances a fresh antibacterial sleeve over the handle every time it's used

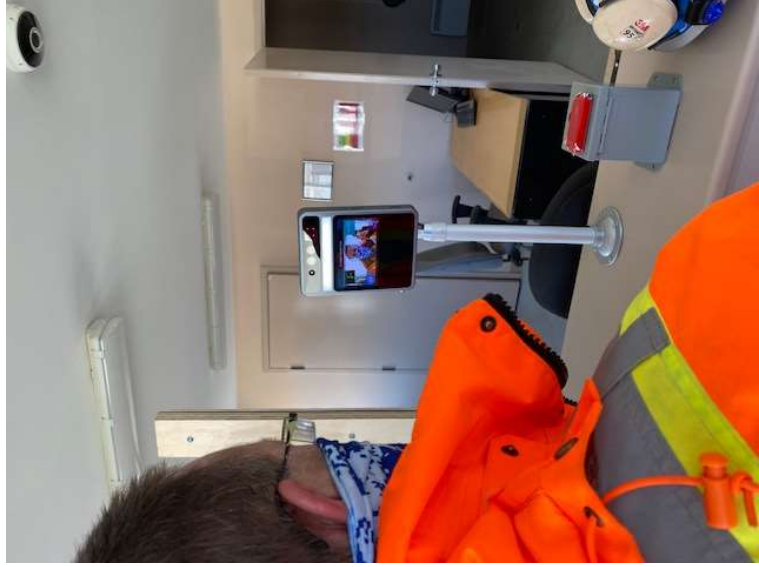
Health Screening - Taking Temperature



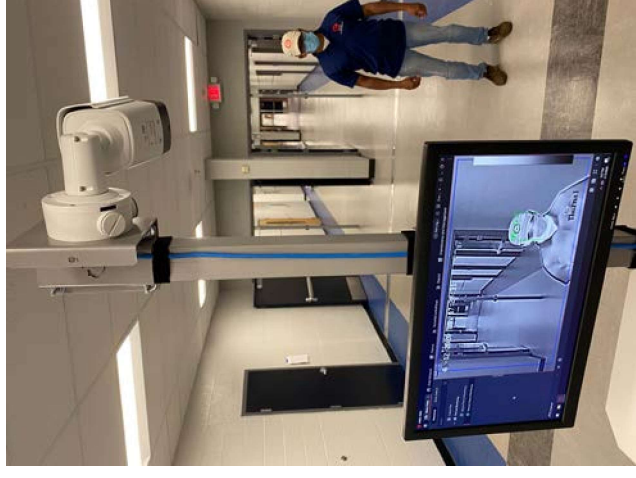
- Helps identify individuals that are ill with COVID-19 or other contagious illnesses such as influenza and measles.
- Emphasizes to people entering the building that you are serious about restricting entry to only non-infected people.
- The screener and the people being screened should be separated by 6 feet or by a partition to protect all.
 - *If screening is not done remotely, the screener needs to wear PPE and use proper sanitizing techniques.*

Note: It is not uncommon for individuals infected with COVID-19 to have no symptoms, including fever.

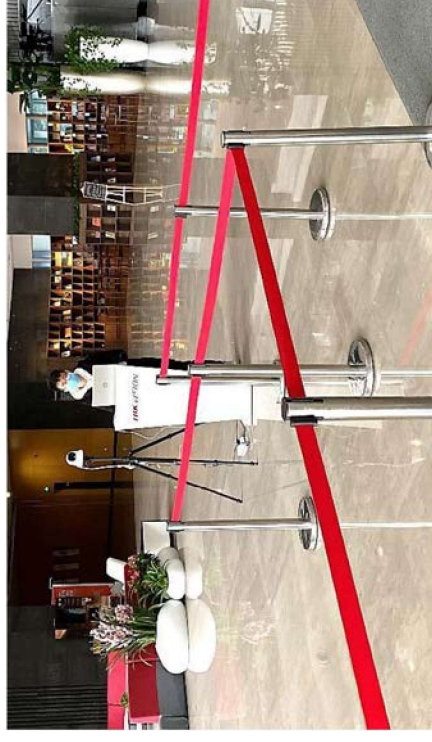
Examples of Remote Temperature Screening Systems



Provix – Desk Mount

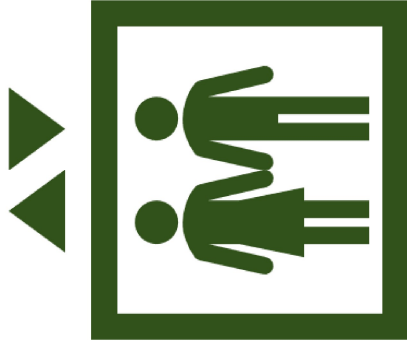


Eversafe Mobile



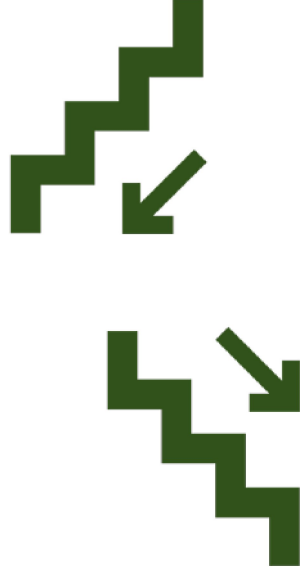
Elevators

- Try to stagger start times so that everyone doesn't need to use the elevator at the same time.
- Establish queues for the elevators, controlling the number of passengers at any one time.
- The number of passengers will depend on the size of the elevator, trying to maximize the distance between passengers.
- Try to discourage people from speaking while on the elevator to minimize droplet production.
- Disinfect the elevator buttons frequently.



Stairs and Escalators

- Using stairs and escalators generally has a lower potential for COVID-19 exposure since people are in a more open environment.
- If possible, establish “up” and “down” stairways so that “traffic” flows in one direction and congestion is minimized.
- Have hand sanitizer available at each floor to encourage people to use handrails. Handrails are important to prevent falls on both stairs and escalators.
- Disinfect handrails frequently.



Eating and Drinking

- Masks cannot be worn while eating and drinking, thus 6 feet of separation is recommended.
- Groups eating together may produce more droplets since there will likely be conversation during eating. Not everyone chews with their mouth closed!
- Drinking fountains should be turned off as they are considered high touch and may become contaminated by saliva.
- Outdoor dining areas are preferable, however may not be feasible due to space, weather, air pollution, allergies or other medical condition.



Eating and Drinking Ideas

- Encourage people to bring their own beverage or food.
- Arrange seating areas for physical distancing.
 - *Some establishments have erected partitions, creating “dining pods”.*
- Disinfect tables and chairs after each use and affix a sticky note saying **CLEANED**.
- Where food is available, have it pre-packed like a “box lunch”.
- Install vending machines with reasonably priced bottled water, i.e. 25¢.
- Install touch free water bottle fillers.

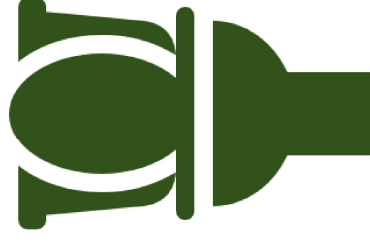


Restroom

Restrooms

Recent research indicates that the COVID-19 may be passed through virus-laden feces. Turbulence in toilet bowls during flushing can aerosolize COVID-19.

- Toilet seats with lids can reduce aerosol liberation
- Signage reminding users to lower the lid prior to flushing
 - Seats with *automatic lowering lids are available*
- Disconnect hand air dryers and provide paper towels
- Use of “touch-free” soap dispensers and washbasins
- Ensure ventilation is operating optimally



Additional Resources - BACK TO WORK SAFELY™

Guidance for both businesses and consumers sponsored by AIHA®
<https://www.backtoworksafely.org/>

- Reopening: Guidance for General Office Settings
https://aiha-assets.sfo2.digitaloceanspaces.com/AIHA/resources/Reopening-Guidance-for-General-Office-Settings_GuidanceDocument.pdf
- Reopening: Guidance for Museums and Collecting Institutions
https://aiha-assets.sfo2.digitaloceanspaces.com/AIHA/resources/Reopening-Guidance-for-Museums-and-Collecting-Institutions_GuidanceDocument.pdf
- Reopening: Guidance for Libraries
https://aiha-assets.sfo2.digitaloceanspaces.com/AIHA/resources/Reopening-Guidance-for-Libraries_GuidanceDocument.pdf
- Reopening: Guidance for the Retail Industry
https://aiha-assets.sfo2.digitaloceanspaces.com/AIHA/resources/Reopening-Guidance-for-the-Retail-Industry_GuidanceDocument.pdf