

## Checklist for Cleaning and Disinfection in Congregate Settings

This checklist is one of several resources intended to support congregate settings to reduce the spread of COVID-19. It is to be used in conjunction with other relevant information from the Wellington-Dufferin-Guelph Public Health (WDGPH) and the Ministry of Health. Visit [wdgpublichealth.ca](http://wdgpublichealth.ca) for ongoing updates and links to additional resources. These are not legal documents.

While the primary mode of transmission of COVID-19 is through contact with an infected person or their respiratory droplets (i.e. cough, sneeze), the virus can also be indirectly transmitted through contaminated surfaces that are frequently touched (i.e. door knobs, light switches, handles) when a person touches the contaminated surface and then touches their eyes, nose or mouth. While studies are still underway to learn more about COVID-19 and how it is transmitted, some studies have shown that the virus can survive on surfaces for hours to days, posing a risk for indirect transmission.

Note: WDGPH does not recommend or endorse the use of any specific product. Please consult Health Canada’s Drug Product Database online query regarding products licensed for use in Canada.

### Product Effectiveness

| Considerations  | Details  |
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| <p>How can you determine if a disinfectant is effective against COVID-19?</p> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Read the label to determine if the product has disinfectant claims.</li> <li><input type="checkbox"/> Locate the Drug Identification Number (DIN) on the label.               <ul style="list-style-type: none"> <li>○ A DIN is an 8-digit number given by Health Canada that confirms the disinfectant product is approved and safe for use in Canada.</li> <li>○ A product with only an EPA number is not acceptable.</li> <li>○ Search Health Canada’s <a href="#">Hard-surface disinfectants and hand sanitizers (COVID-19): List of disinfectants with evidence for use against COVID-19</a> by entering the DIN into the search box.</li> </ul> </li> </ul> <p>While most disinfectants will work against COVID-19, the disinfectants on this list are supported by evidence following drug review, demonstrating that they are likely to be effective and may be used against SARS CoV 2, the virus that causes COVID-19.</p> |

## Cleaning and Disinfection Best Practices

| Considerations   | Details  |
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| <p>What are best practices for cleaning and disinfecting surfaces?</p> | <ul style="list-style-type: none"> <li>❑ Locate the product sheet and/or review the product label to understand how to safely and effectively use the product (i.e. expiry date, re-use claim, dilution).</li> <li>❑ Ensure the cleaning and disinfection products are not expired.</li> <li>❑ Determine if the product is one-step cleaner and disinfectant or whether it is only a disinfectant.             <ul style="list-style-type: none"> <li>○ The label will indicate if the product is a cleaner, disinfectant, or both.</li> </ul> </li> <li>❑ The product label should state if pre-cleaning is required, however heavily soiled areas should always be pre-cleaned before disinfecting.</li> <li>❑ Follow the contact time (the time the product must stay wet on a surface) required to achieve disinfection.             <ul style="list-style-type: none"> <li>○ Consider the setting and surfaces the product is being used on when determining what disinfectant produce to use. It may not be feasible for the surface to remain wet for the required contact time when the contact time is prolonged.</li> </ul> </li> <li>❑ Spray bottles are not recommended when applying disinfectant products in a health care setting.             <ul style="list-style-type: none"> <li>○ Applying a disinfectant using an aerosol or trigger spray may cause eye injuries or exacerbate an individual’s respiratory condition.</li> <li>○ If spray bottles are used, spray the product directly onto the cleaning cloth and then wipe the surface following the manufacturer’s instructions for use. Do not apply the product directly onto the surface with a spray application.</li> </ul> </li> <li>❑ Only decant the product into an empty bottle. Once the decanted product is used up or discarded, clean and dry the bottle before re-filling. A dedicated cleaning sink (not a hand washing sink) must be used.</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>○ Each product has a specific shelf-life after being diluted/decanted as indicated by the manufacturer. The shelf-life cannot be properly tracked if the bottles are topped up.</li> <li>○ Topping up bottles may over/under dilute the product affecting its safety and/or efficacy.</li> <li>□ When cleaning and disinfecting surfaces:             <ul style="list-style-type: none"> <li>○ Visible soil must be cleaned with soap and water before applying the disinfectant.</li> <li>○ Always move from low-touch to high-touch surfaces, cleaner areas to dirtier areas, and from top to bottom to avoid cross contamination of surfaces.</li> </ul> </li> <li>□ Do not double-dip cloths into the product as this can contaminate the remaining solution.</li> </ul> |
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### Mixing Disinfectants from Concentrate

| Considerations  | Details   |
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| <p>If a product is supplied in a concentrated format, what is the best practice for mixing?</p> | <ul style="list-style-type: none"> <li>□ Never dilute a ready-to-use (RTU) product.</li> <li>□ Never use a concentrated product without first diluting as per the manufacturer’s instructions. Using a concentrated product at full strength can create an occupational health and safety concern and could damage the surface.</li> <li>□ If a concentrated disinfectant is purchased, there must be a method to consistently dilute the product on-site.</li> <li>□ Develop a process for diluting the product (e.g. automated mixing devices, dispensers, measuring cup) to ensure consistency.</li> <li>□ Post instructions for staff on proper handling and dilution of the disinfectant products.</li> <li>□ Contact the manufacturer to determine the shelf life of the product once it has been mixed to determine how often to re-mix the product.</li> <li>□ Once a product is dispensed from the original container, the bottle must be labelled (i.e. WHMIS label).</li> <li>□ Test strips are recommended to verify the product was mixed as per manufacturer’s instructions.</li> </ul> |

- Ensure test strips are not expired.
- Keep a log of test results when verifying the concentration of the product.
- Test strips are not intended to allow for prolonged product use beyond the shelf-life or expiry date indicated by the manufacturer. The product must be replaced as per the re-use claim, if visibly contaminated, or as required by the manufacturer.
- The manufacturer should provide direction on when and how often the verification of dilution should be performed. When this is not available, dilution should be verified each time the solution is dispensed.

### **Preparing a bleach and water disinfectant solution (using 5.25% bleach) for COVID-19**

Source: [Reducing COVID-19 Transmission Through Cleaning and Disinfecting Household Surfaces](#)

- There are several products that are effective against COVID-19 including a bleach and water solution.
- Studies have demonstrated that a 500ppm and a 1000ppm bleach and water solution are effective against COVID-19.
- Some individuals may have sensitivities to bleach and some organizations do not permit the use of bleach within their organization.
- Higher concentrations of bleach and water are not recommended as this can lead to occupational health and safety concerns.
- If a bleach and water solution is used for disinfection, it must be mixed safely. When mixing, always add concentrated bleach to water; to avoid accidental exposure from splashes, never add water to concentrated bleach.

- As bleach is only a disinfectant, all surfaces must first be cleaned with soap and water and rinsed prior to applying the bleach solution.
- The contact time (time the disinfectant must stay wet on the surface) for bleach and water to be effective against COVID-19 is 5 minutes. When considering other organisms, the contact time for bleach and water to be effective against norovirus is 10 minutes.

**Intermediate level disinfection (1:100, approximately 500ppm) – for low touch surfaces**

- 1 tsp (5ml) of household bleach in 2 cups (500ml) water
- Recommended for use on low-touch environmental surfaces
- Surfaces should remain wet for at least 5 minutes to allow adequate contact time. Air dry after disinfecting.

**Intermediate High-level disinfection (1:50, approximately 1000ppm) – for high touch surfaces**

- 1 tsp (5ml) of household bleach in 1 cup (250ml) water
- 4 tsp (20ml) of household bleach in 1 L of water
- Recommended for use on high touch surfaces (surfaces that are touched frequently) and when there is visible bodily fluid contamination
- Surfaces should remain wet for at least 5 minutes to allow adequate contact time. Allow surfaces to air dry after disinfecting.

## Documentation

| Considerations   | Details   |
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| <p>What documentation should be available on-site for staff to review?</p> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Develop an environmental cleaning policy and procedure for all staff to follow; provide instructions specific to the products used.</li> <li><input type="checkbox"/> Provide the safety data sheet (SDS) sheet for each product. Staff should confirm the personal protective equipment (PPE) required prior to using/mixing a product. (IMPORTANT: determine whether access to an eye wash station is required for products onsite).</li> <li><input type="checkbox"/> Check with the manufacturer/supplier and have documentation onsite to verify:               <ul style="list-style-type: none"> <li>○ Whether pre-cleaning is required</li> <li>○ Contact time</li> <li>○ PPE required</li> <li>○ If a rinse step is required</li> <li>○ The shelf life of the product (i.e. how long it can remain in solution once mixed)</li> </ul> </li> <li><input type="checkbox"/> Whether the product is a one-step cleaner/disinfectant or if it is just a disinfectant and therefore cleaning is required prior to disinfection.</li> </ul> |

## No Touch Disinfection Systems

| Considerations  | Details  |
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| <p>Can a disinfectant fogging or no touch disinfection system be used instead of manual disinfection of surfaces?</p> | <ul style="list-style-type: none"> <li><input type="checkbox"/> If a no touch disinfection system is used to disinfect surfaces:               <ul style="list-style-type: none"> <li>○ All surfaces must be manually cleaned to remove debris and organic matter prior to application of the disinfectant.</li> <li>○ The product must be used according to the manufacturer's instructions for use.</li> <li>○ Occupational health and safety concerns should be reviewed by each organization.</li> </ul> </li> <li><input type="checkbox"/> Based on recent information from Public Health Ontario:</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>○ The safety and effectiveness of fogging for disinfection for COVID-19 have not been demonstrated.</li> <li>○ Potential worker exposure to disinfectants and subsequent adverse health effects, and a lack of research supporting this practice, are concerns that should be considered.</li> <li>□ Health Canada and Ontario’s Provincial Infectious Diseases Advisory Committee (PIDAC) also discourage fogging for disinfection in health care settings.</li> <li>□ The World Health Organization (WHO) does not recommend spraying or fogging of disinfectants to environmental surfaces in indoor spaces for COVID-19 disinfection. This is based on adverse health effects (e.g., eye, respiratory or skin irritation) from worker exposure to disinfectants such as formaldehyde, chlorine based agents or quaternary ammonium compounds; lack of efficacy at removing contaminants outside of the direct spray zone; and lack of effectiveness for removing organic material and reaching shielded surfaces, (e.g., folded fabrics, surfaces with intricate designs).</li> </ul> |
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**Other Considerations**

| Considerations   | Details   |
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| What are other considerations and where can I find more information? | <ul style="list-style-type: none"> <li>□ Always follow manufacturer’s instructions on the product label for the intended use.               <ul style="list-style-type: none"> <li>○ If the product will be used on food contact surfaces, an extra rinse step with potable water after meeting the contact time may be required if the product is not food grade. Alternatively, a sanitizer can be used on food contact surfaces.</li> <li>○ A sanitizer reduces but does not necessarily eliminate the number of microorganisms (i.e. bacteria, viruses) on surfaces. Sanitizers are only to be used in food preparation areas.</li> </ul> </li> </ul> |

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|  | <ul style="list-style-type: none"> <li>❑ Make sure the cleaner and disinfectant are compatible with the surface to be cleaned and disinfected.</li> <li>❑ Cloth surfaces and furnishings that are not fluid resistant cannot be cleaned and disinfected.</li> <li>❑ Never mix bleach with ammonia or acid products as toxic chlorine gas and other dangerous by-products can be formed.</li> <li>❑ If a disinfectant product with extended efficacy claims (i.e. 30 days) is used, the use of this product does not replace the need for routine cleaning and disinfection of environmental surfaces. There is no ability for a user to determine the ongoing efficacy of this product.             <ul style="list-style-type: none"> <li>○ Current recommendations for environmental cleaning and disinfection for COVID-19 are for surfaces to be regularly cleaned and disinfected (i.e., daily) and more frequently (i.e., twice daily) for high touch surfaces</li> <li>○ For more information, review the PIDAC Best Practices for Environmental Cleaning for Prevention and Control of Infections in all Health Care Settings.</li> </ul> </li> </ul> |
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### Additional Resources

PIDAC Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, as current: <https://www.publichealthontario.ca/-/media/documents/B/2018/bp-environmental-cleaning.pdf>

## References

1. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for environmental cleaning for prevention and control of infections in all health care settings. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: <https://www.publichealthontario.ca/-/media/documents/B/2018/bp-environmentalcleaning.pdf>.
2. Health Canada. Hard-surface disinfectants and hand sanitizers (COVID-19): list of disinfectants with evidence for use against COVID-19 [Internet]. Ottawa, ON: Government of Canada; 2020. Available from: <https://www.canada.ca/en/health-canada/services/drugshealth-products/disinfectants/covid-19/list.html>
3. Ontario Ministry of Health. COVID-19 outbreak guidance for long-term care homes (LTCH). Version 2. Toronto, ON: Queen's Printer for Ontario; 2020. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/LTCH\\_outbreak\\_guidance.pdf](http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/LTCH_outbreak_guidance.pdf)
4. National Collaborating Centre for Environmental Health. Reducing COVID-19 Transmission Through Cleaning and Disinfecting Household Surfaces. April 28, 2020. Available from: <https://ncceh.ca/documents/guide/reducing-covid-19-transmission-through-cleaning-and-disinfecting-household-surfaces>
5. Public Health Ontario Webinar Question and Answer: Environmental Cleaning for Prevention and Control of COVID-19 in Long-term Care and Retirement Homes. July 23, 2020. Available from: <https://file-us.clickdimensions.com/publichealthontarioca-agulw/files/qa-webinar-env-cleaning-ltchs.pdf?1595446743232&cldee=ZGIhbmUuZHVya0B3ZGdwdWJsaWNoZWZsdGguY2E%3d&recipientid=contact-b54f85b8444be41180d400155d027703-1ee651d1c93045ebbb0f256146a60236&esid=ae53a7c7-51cc-ea11-a61e-0050569e118f>