

No Touch Technologies for Surface Disinfection

SE Hub Tip Sheet

No touch disinfection technologies are rapidly emerging in healthcare settings for environmental cleaning and will likely expand into other areas in the near future.

Important Reminders

- No-touch disinfectant technologies do not replace manual cleaning /disinfection. Application is in addition to manual cleaning/disinfection.
- Read and follow the manufacturer instructions for use (MIFU) and the products Safety Data Sheet (SDS) for the device and disinfectant.
- Use disinfectant products that have a Drug Identification Number (DIN) and are approved by Health Canada.
- Use disinfectant products that are indicated for the device and approved for the method of application.
- Ensure disinfectant products are compatible with surfaces, finishes, furnishings, and items to be cleaned and disinfected.
- Use personal protective equipment (PPE) according to MIFU and SDS to avoid harm to the user.
- Consider posting a “Do Not Enter” sign by the door prior to use. Ensure no bystanders are in the area to be treated.



Technology	Description	Advantage	Special Considerations
Electrostatic Sprayer 	<p>This method applies a charge to each droplet of the disinfectant prior to application on the surface. This results in the charged disinfectant being attracted to targeted surfaces.</p>	<ul style="list-style-type: none"> - Can be useful for hard to reach areas and results in an even surface coverage (e.g., back and underside.) - Furniture and equipment does not need to be moved prior to use. - Minimal wait times for re-occupancy after use 	<ul style="list-style-type: none"> - ‘System technology’ - the disinfectant solution and the device must be compatible and used according to the MIFU to ensure effectiveness and safety. - Caution is needed during use near flammable gases, liquids, and dust (potential to generate sparks).
Foggers 	<p>This method dispenses fine particles of vapours and aerosols of disinfectant. Particles are dispersed by force generated from the device or by the natural airflow within an area.</p>	<ul style="list-style-type: none"> - Disinfection of surfaces, equipment and furniture occurs at the same time. - Furniture and equipment does not need to be moved prior to use - Can be used in larger scale disinfection (e.g., during outbreaks, terminal disinfection) 	<ul style="list-style-type: none"> - HVAC systems must be turned off and doors within the space are taped due to exposure risks during use. - Not intended for daily disinfection as areas are required to be unoccupied for longer periods of time. - Takes time to ensure appropriate set up (e.g., pre-cleaning, wait time before re-occupancy, etc.)
Ultraviolet Light 	<p>This method requires direct wavelength exposure from the Ultraviolet-C (UV-C) light system to the surface to inactivate microorganisms.</p>	<ul style="list-style-type: none"> - Disinfection of surfaces, equipment and furniture occurs at the same time. - HVAC systems do not need to be turned off prior to use. - Shorter cycle times (from start to finish) reduces the wait time for re-occupancy - No surface residue following use 	<ul style="list-style-type: none"> - Furniture and equipment must be moved away from the walls for UV-C light to deflect off all surfaces. - Area must be unoccupied with signage UV-C is in use. - Monitor surfaces and items that are plastic, vinyl and polymer for potential deterioration with repeat use of UV-C systems. - Effectiveness varies with wavelength exposure, placement within the area, and duration of the cycle.

No-touch technologies for surface disinfection DO NOT replace requirements for manual cleaning/disinfection and hand hygiene!

References:

<http://www.publichealthontario.ca/-/media/documents/b/2018/bp-environmental-cleaning.pdf?la=en>

<https://ncceh.ca/documents/guide/reducing-covid-19-transmission-through-cleaning-and-disinfecting-household-surfaces>

<https://www.publichealthontario.ca/-/media/documents/ncov/ipac/2020/07/faq-covid-19-electrostatic-sprayers.pdf?la=en>

<https://text.apic.org/toc/basic-principles-of-infection-prevention-practice/cleaning-disinfection-and-sterilization>

Disclaimer: The information provided is based off evidence based practice and guidance recommendations at the time. In the event these recommendations contradict an organization's IPC policies and procedures the organizations policies and procedures must be followed. Questions or concerns please contact sehubintake@kingstonhsc.ca