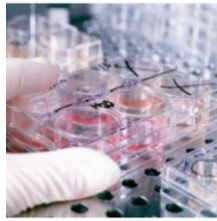




NATIONAL HEALTH
LABORATORY SERVICE



Cleaning post-COVID-19 in the workplace

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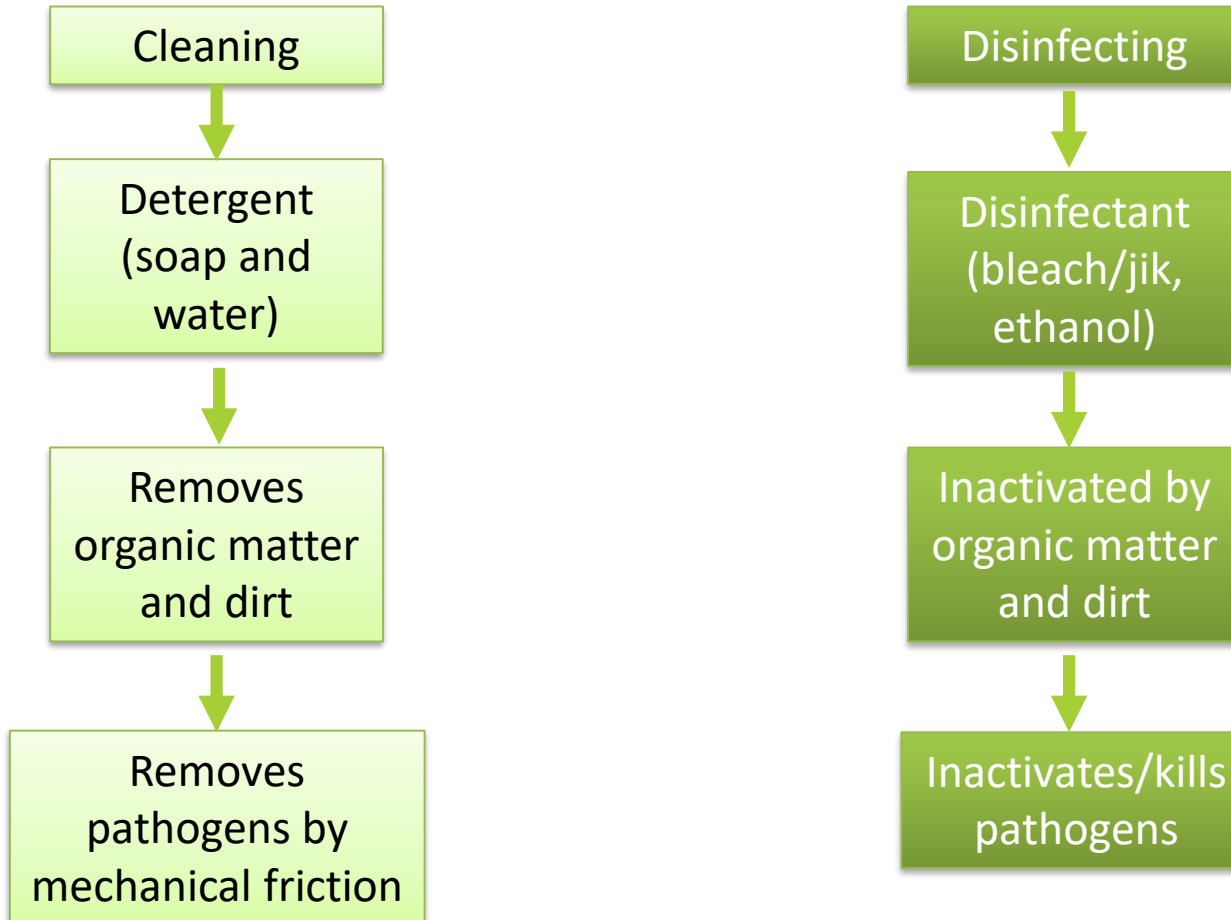
Introduction

- Previously presented “Guidelines on routine and deep cleaning in the workplace” (https://www.nioh.ac.za/wp-content/uploads/2020/07/Guidance-on-routine-deep-cleaning_1-July-Fin.pdf)
- Questions to be answered in today’s presentation:
 1. What is the difference between cleaning and disinfecting?
 2. What is the difference between regular, day-to-day routine cleaning and deep cleaning?
 3. Why is fogging as a deep cleaning method not recommended?
 4. Should a business be closed for deep cleaning when a COVID-19 positive case is identified and should I deep clean every time a positive case is identified?
 5. Should I get an external cleaning company to conduct deep cleaning and do I need a certificate of cleaning?
 6. What is required from the employer if in-house cleaning staff should conduct cleaning?
 7. When and how should I clean/disinfect certain items (e.g. carpets, vehicles, library resources)?
- Another good recourse together with NIOH website: Chief Inspector, Mr Tibor Szana’s talk on 17 June 2020, hosted by South African Institute of Occupational Safety and Health (SAIOSH; <https://www.saiosh.co.za/>) (<https://www.youtube.com/watch?v=R8BoQe554ps>)

Definitions

- **Clean:** Water, detergent (soap) and mechanical friction to reduce pathogen load, organic matter and dirt. Detergent does not kill pathogens.
- **Disinfect:** Type of decontamination using disinfectants to kill ~ 100% of pathogens. Easily deactivated by organic matter and dirt.
- **Clean first** (to reduce pathogen load, organic matter and dirt), **then disinfect** (to kill remaining pathogens).
- **Sanitize:** Lowering the number of pathogens to a safe level by either cleaning or “lower level” disinfection.
- **Sterilize:** Type of decontamination using heat and steam often via autoclaving.
- **Decontaminate:** Includes pre-cleaning followed by sanitizing, sterilizing or disinfecting.

What is the difference between cleaning and disinfecting?



Approved disinfectants

- National Regulator for Compulsory Specifications (NRCS)-approved list (South Africa):
 - <https://www.nrcs.org.za/siteimgs/CMM/LOA/Disinfectant/Registration%20Database%20Chemical%20Disinfectants%202009-2020.pdf>
- EPA-approved N-list (USA):
 - <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
- Department of Trade and Industry list of active ingredients in approved disinfectants:
 - “Government Gazette, 20 October 2017, No 41186, Department of Trade and Industry No 1119 Annexure D.” pp. p112-114, 2017.

If approved disinfectants are unavailable...

- Use 70-90% alcohol (e.g. ethanol or isopropyl alcohol)
- Use chlorine solution (sodium/calcium hypochlorite aka bleach/jik)
 - 0.1% (1000 ppm) for general environmental disinfection
 - 0.5% (5000 ppm) for blood and bodily fluid spills
- Hydrogen peroxide at $\geq 0.5\%$
- Contact time for above disinfectants: 1 minute
- Contact time: Time for disinfectant to be in contact with surface in order to kill pathogen
- Type of disinfectant will be determined by type of surface to be cleaned (contact manufacturer if unsure)

What is the difference between regular, day-to-day routine cleaning and deep cleaning?

- **Regular, day-to-day routine cleaning**
 - Before COVID:
 - Regular routine day-to-day cleaning with **detergent only** (no disinfection; except for health care settings)
 - During COVID:
 - Day-to-day cleaning with **detergent**
 - At least once a day but frequency will increase if:
 - Workplace operates in shifts (clean between shifts).
 - Equipment is shared (clean between uses).
 - **Disinfect only** when there is likelihood of contamination
 - High volume of workers, customers or visitors that are likely to touch surfaces (**high-touch** surfaces of entry and exit points e.g. door knobs, lift buttons, receptionist desks etc.)
- **Deep cleaning**
 - Conducted every time **COVID-19 case suspected/identified**
 - **Cleaning always** followed by **disinfection** of all affected areas (**high-touch** and **low-touch** surfaces in affected areas)
 - Follows incident-based risk assessment



Deep cleaning**

Routine cleaning*

Cleaning

Detergent
(soap and
water)

Removes
organic matter
and dirt

Removes
pathogens by
mechanical friction

Disinfecting

Disinfectant
(bleach/jik,
ethanol)

Inactivated by
organic matter
and dirt

Inactivates/kills
pathogens

*Disinfect high-touch surfaces only if there is potential for contamination

** Cleaning and disinfection of high-touch and low-touch surfaces in affected/contaminated area, identified by risk assessment

Why is fogging as a deep cleaning method not recommended?

- Deep cleaning does not mean fogging (spraying, demisting etc.)
- The National Department of Health (NDoH), WHO, CDC, EPA etc. do not recommend fogging:
 - Disinfectant inactivated by organic matter (cleaning still required)
 - May miss surfaces shielded by objects/folded fabric etc.
 - Increased inhalation exposure of disinfectant to workers and community.
- The NDoH and WHO recommend deep cleaning via wiping disinfectant on contaminated surfaces with a cloth/wipe (high- and low-touched, as identified by a risk assessment) after thorough cleaning.

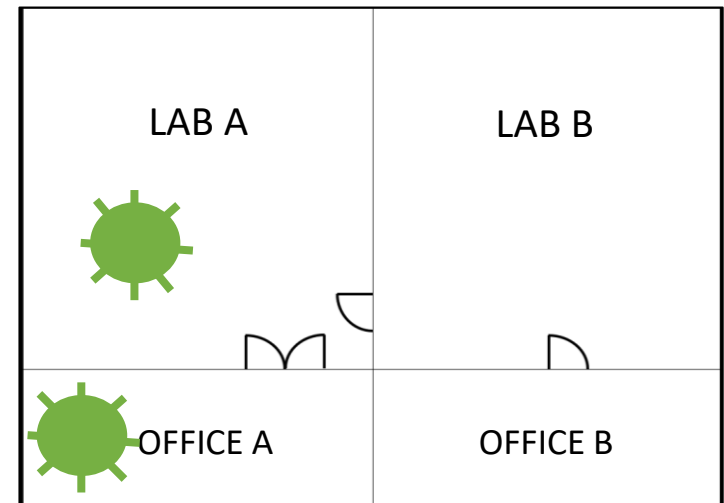


**CLEANING AND DECONTAMINATION OF WORKPLACES
IN THE CONTEXT OF COVID-19
(10 June 2020)**

http://www.nioh.ac.za/wp-content/uploads/2020/06/disinfection_ohs_academic_june-20.pdf

Should a business be closed for deep cleaning when a COVID-19 positive case is identified and should I deep clean every time a positive case is identified?

- It is not necessary to close entire business if it is possible to close off affected area and direct work to another clean area. Example: Close off **LAB A** and **OFFICE A**
- Required for a specific area in facility that was occupied by a COVID-19 case to enable reoccupation of the affected area as soon as possible (i.e. in less than 7 days) for essential services to resume.
- Not required in areas that were unoccupied for more than 7 days (possibility of infectious SARS-CoV-2 on surfaces would be negligible)
- COVID-19 positive case must have had spend considerable amount of time in workplace, touched and handled many objects, equipment and surfaces and had close contact with several co-workers (not necessary if case simply passed through workplace without touching any surfaces or spending much time in face-to-face communication).



Should I get an external cleaning company to conduct deep cleaning and do I need a certificate of cleaning?

- Deep cleaning does not need to be conducted by external, 3rd party specialist company
- Department of Health does not require certificates of cleaning.



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What is required from the employer if in-house cleaning staff should conduct cleaning?

- **No accredited/certified training** needed.
- Cleaners will only be comfortable in conducting deep cleaning if they are given all the information as well as PPE by the employer to conduct cleaning
 - Trained in the effective cleaning processes, appropriate equipment and use of detergents and disinfectants (e.g. correct dilution and application methods, storage and emergency spill procedures)
 - Employers must obtain and maintain **Safety Data Sheets** (SDSs) for all hazardous cleaning products and chemicals. Must be readily accessible to all.
 - Warn workers **not to mix** cleaning products that contain sodium/calcium hypochlorite and ammonia.
 - **Label** all containers of cleaning products for easy identification.
 - Providing **PPE** (mask, disposable or utility gloves, dedicated overall (plastic aprons), closed shoes).
 - Training should include when to use which PPE, how to properly don, use, and doff PPE etc.
 - Workers should immediately report **breaches in PPE** such as a tear in gloves or any other potential exposures to their supervisor.
 - Providing workers with **hand-wash facilities** after using detergent and disinfectants.

When and how should I clean/disinfect certain items (e.g. carpets, vehicles, library resources etc.)?

- Frequency of cleaning and disinfection for items in non-health care workplace:
 - <https://www.safeworkaustralia.gov.au/doc/how-clean-and-disinfect-your-workplace-covid-19>
- Frequency of cleaning and disinfection for items in health care workplace:
 - <https://www.who.int/publications-detail/cleaning-and-disinfection-of-environmental-surfaces-inthe-context-of-covid-19>
 - <https://www.nicd.ac.za/wp-content/uploads/2020/05/ipc-guidelines-covid-19-version-2-21-may-2020.pdf>
- Library recourses:
 - Department of Sports, Arts and Culture for additional instructions
<http://www.nationalarchives.gov.za/node/2347417>