

Environmental Cleaning and Disinfection for Influenza

GENERAL FACT SHEET

In general, influenza A viruses can survive on environmental surfaces only for short periods of for up to several hours, depending on a number of environmental factors (e.g., temperature, humidity, exposure to sunlight, type of surface.). Human infection can occur through contact with contaminated surfaces and then infecting oneself by touching eyes, nose, or mouth. Therefore, it is important to regularly and routinely disinfect potentially contaminated surfaces to minimize potential spread to others.

Infectious Materials

Depending on the specific type, viruses have the potential to be present in almost all body secretions (including saliva, nasal fluid, blood, cerebrospinal fluid, and feces). Environmental surfaces can harbor viruses when contaminated with a body secretion from infectious persons.

Cleaning and Disinfection

When surfaces are visibly dirty, cleaning with soap or detergent in water is the first step in surface treatment. Cleaning will remove dirt and organic matter that would reduce the effectiveness of the disinfection step. Routine cleaning methods and procedures are effective and should be used. Any commercially available soap or detergent can be used. Water can be cold or warm, or as recommended on the label of the cleaning product used (if a specific temperature is listed).

Suitable Disinfectants

Influenza A viruses can be effectively killed by many common disinfectants including bleach or ammonia based cleaning products. The US Environmental Protection Agency (EPA) maintains a list of commercial disinfecting products that are effective against influenza A viruses on hard non-porous surfaces (<http://www.epa.gov/oppad001/influenza-disinfectants.html> or <http://www.epa.gov/oppad001/influenza-a-product-list.pdf>). Follow the manufacturer's recommendations for use, dilution, and contact time.

If an EPA listed product is not available, an effective disinfecting solution can be made using household bleach (sodium hypochlorite). To use chlorine bleach for general surface area disinfection, use a mixture of ¼ cup of household bleach (5.25 percent concentration) with one gallon of water. Apply to surfaces. Leave wet for 2 minutes, then rinse and air dry.

Additional Guidelines for Using Bleach

- Bleach is not effective if surface is covered with blood, stool or other body fluids. Surfaces must be cleaned of these types of fluids before disinfection will be effective.

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- Household bleach is commonly sold in 5.25 percent concentration.
- Bleach solutions degrade over time. Solutions should be kept in a closed container away from sunlight and must be made fresh daily.
- Do not mix bleach with other cleaning products.
- Use in a well ventilated area.

General Disinfection/Cleaning Guidance

- Do not spray (fog) rooms with disinfectant or air sanitizers. This is a potentially dangerous practice that has no proven disease control benefit.
- Do not clean using dry dusting or sweeping methods. This practice may move viruses into the air. Use damp cleaning methods such as wet rags or mops.
- Clean floors and other surfaces like window sills, countertops, and shelves.
- Clean frequently touched items such as door knobs, telephones, equipment buttons, faucet handles, etc.
- Change mop heads, rags, and similar items and disinfectant solutions frequently during the decontamination procedure. Consider using disposable cleaning items. Work from areas of light contamination to areas of heavier contamination.
- Use a double bucket method (one bucket for cleaning solution, one for rinsing).
- Clean, disinfect, and dry equipment used for cleaning after each use.

Specific Disinfection/Cleaning Guidance

- **Commonly Touched Surfaces** – Frequent cleaning of surfaces that are often touched by many people is important to reduce the risk of spreading influenza A viruses. Sanitizing wipes can be used to clean things like computer keyboards and handheld electronics.

Commonly touched surfaces include but are not limited to:

- Door knobs or handles
- Hand rails
- Telephones
- Faucet handles
- Remote controls and handheld electronics
- Shared computer keyboards and mice
- Shared counters or desks

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- **Dishes and Eating Utensils** – Effective decontamination of non-disposable items is achieved by washing in a properly functioning dishwasher at recommended temperatures and quantities of detergent or in the sink with hot water and dish soap and allowing to air dry (do not wipe dry with towels). Disposable items can be discarded as ordinary refuse.
- **Linens and Laundry** – Clothing, bedding and towels should not be shaken or otherwise handled in a manner that may generate aerosols. Laundry may be washed in a standard washing machine using warm water and detergent. Bleach may be added. Wash hands after handling potentially contaminated laundry or consider wearing disposable gloves.
- **Carpeting and Cloth Furnishings** – Carpeting that is soiled with bodily secretions or fluids should be cleaned using the manufacturer’s instructions or vacuum using a HEPA filter followed by carpet cleaning using a wet vacuuming method. Consider covering any mattresses or cloth furnishings used by ill persons with plastic or rubber sheets.

Frequency

Visibly soiled areas should be cleaned immediately. Commonly touched surfaces should be cleaned between uses. Areas and items known or likely to be contaminated should be disinfected at least daily.

Adapted from Iowa Department of Public Health