

Pandemic Flu and Personal Protection: Hand Hygiene

This fact sheet provides guidelines on hand hygiene during an influenza pandemic.

Hand Hygiene: The Best Defence

Proper hand hygiene is the cornerstone of infection prevention and control during an influenza pandemic. Influenza viruses can live on hands for up to five minutes and on hard surfaces for up to two days. Therefore, it is critical that you clean your hands often to keep yourself and others healthy.

Alcohol-Based Hand Rub

Alcohol-based hand rub is the preferred method for decontaminating hands. Using alcohol-based hand rub is better than washing hands (even with an antibacterial soap) when hands are not visibly soiled. However, hand washing with soap and running water must be performed when hands are visibly soiled. If running water is not available, use moistened towelettes to remove the visible soil, followed by alcohol-based hand rub.

Hand Washing

Most transient bacteria present on the hands are removed during the mechanical action of washing, rinsing and drying hands. Hand washing with soap and running water must be performed when hands are visibly soiled.

When Should Hand Hygiene Be Performed?

Hand hygiene must be performed:

- Before and after contact with a patient.
- Before performing invasive procedures.

- Before preparing, handling, serving or eating food.
- After care involving the body fluids of a patient (e.g., assisting patient to blow nose, toileting the patient or doing wound care) and before moving to another activity.
- Before putting on and after taking off gloves.
- After personal body functions, such as using the toilet or blowing one's nose.
- Whenever a health care provider is in doubt about the necessity for doing so.
- When hands accidentally come into contact with secretions, excretions, blood and body fluids (hands must be washed with soap and running water).
- After contact with items in the patient's environment.

Factors That Influence Hand Hygiene

The following factors influence the effectiveness of hand hygiene:

- Condition of the skin: intact skin vs. presence of dermatitis, cracks, cuts or abrasions
- Nails: natural nails more than 3-4 mm (1/4-inch) long are difficult to clean, can pierce gloves and harbour more microorganisms than short nails.
- Only nail polish in good condition is acceptable.
- Artificial nails or nail enhancements are not to be worn by those giving patient care as they have been implicated in the transfer of microorganisms.

- Jewellery: rings and bracelets hinder hand hygiene, and should not be worn for patient contact; rings increase the number of microorganisms present on hands and increase the risk of tears in gloves.

Hand Hygiene Agents

Alcohol-based hand rubs:

- Are recommended to routinely decontaminate hands in clinical situations when hands are not visibly soiled.
- Provide for a rapid kill of most transient microorganisms.
- Contain a variety of alcohols in concentrations from 60 to 90 per cent.
- Are not used with water.
- Contain emollients to reduce skin irritation.
- Are less time consuming than washing with soap and water.

Liquid or foam soap:

- soap must be dispensed in a disposable pump dispenser
- soap containers are not to be topped up, as there is a risk of contamination
- bar soaps are not acceptable in health care settings except for individual client/patient/resident personal use.
- antibacterial soaps may be used in critical care areas such as ICU, or in other areas where invasive procedures are performed.

Techniques

Alcohol-based hand rub:

- Remove hand and arm jewellery. Jewellery is very hard to clean, and hides bacteria and viruses from the antiseptic action of the alcohol.
- Ensure hands are visibly clean (if soiled, follow hand washing steps).
- Apply between one to two full pumps of product, or squirt a loonie-sized amount, onto one palm.
- Spread product over all surfaces of hands, concentrating on finger tips, between fingers,

back of hands, and base of thumbs. These are the most commonly missed areas.

- Rub hands until product is dry*. This will take a minimum of 15 to 20 seconds if sufficient product is used.

* Hands must be fully dry before touching the patient or patient's environment/equipment for the hand rub to be effective and to eliminate the extremely rare risk of flammability in the presence of an oxygen-enriched environment.

Hand washing:

- Remove hand and arm jewellery. Jewellery is very hard to clean, and hides bacteria and viruses from the mechanical action of the washing.
- Wet hands with warm (not hot) water. Hot water is hard on the skin, and will lead to dryness.
- Apply liquid or foam soap. Do not use bar soap in health care settings as it may harbour bacteria that can then be spread to other users.
- Vigorously lather all surfaces of hands for a minimum of 15 seconds. Removal of transient or acquired bacteria requires a minimum of 15 seconds mechanical action. Pay particular attention to finger tips, between fingers, backs of hands and base of the thumbs. These are the most commonly missed areas.
- Using a rubbing motion, thoroughly rinse soap from hands. Residual soap can lead to dryness and cracking of skin.
- Dry hands thoroughly by blotting hands gently with a paper towel. Rubbing vigorously with paper towels can damage the skin.
- Turn off taps with paper towel, to avoid recontamination of your hands (**Note:** If hand air dryers are used, hands-free taps are necessary).

For More Information

Visit our website at

www.health.gov.on.ca/pandemic

Call the Health Care Provider's Hotline toll-free at 1 866 212-2272.