

Preventing the Spread of Germs – FAQ

Read on to learn more about hand hygiene and respiratory etiquette, two important strategies to prevent the spread of illness-causing germs.

What are germs?

The word germ is used to describe different types of micro-organisms, including bacteria and viruses. Although bacteria are everywhere and make up 60 per cent of the living matter on earth, only about 50 are known to cause infection.² Viruses cause far more illnesses than “bad” bacteria because they spread more easily (see below *Respiratory Etiquette*).² Influenza, or the flu, is caused by a virus.

What is hand hygiene?

Hand hygiene is defined as removing or killing micro-organisms, or germs, on the hands. Hand hygiene can include hand washing with using soap and running water, or using alcohol-based hand rubs or sanitizers.⁴

Why is hand hygiene important?

All humans carry germs on their skin, some are good and some are bad. The bad germs are picked up through direct contact with other people who are sick or with contaminated items (e.g. door knobs, keyboards). Effective hand hygiene kills or removes the bad germs.

How does hand washing kill germs?

Soap doesn't actually kill the bad germs. It's the combination of soap, rubbing, rinsing and drying that does the job. Regular soap and water create a slippery surface and the germs slide off and are rinsed down the drain under running water. This is why it is so important to “scrub” the hands when washing; the mechanical action breaks down the tiny bits of grease and dirt on the hands that bad germs cling to.²

When should hand washing be used?

Hand washing is preferred when the hands are visibly soiled or visibly dirty. It should be noted that even if the hands do not “look” dirty after using the washroom, hand washing is the preferred method of cleaning.

How do alcohol-based hand sanitizers kill germs?

Hand sanitizers contain a high concentration of alcohol (ethanol) to kill germs on the surface of the hands. The alcohol penetrates the cell membrane and changes the nature of it (e.g. denatures it) and the germ is no longer harmful. At the same time, the sanitizer strips the outer layer of oil off the hands, creating an unwelcoming environment for new germs.⁴ When alcohol is rubbed over the surface of the hands for a short period of time, the alcohol makes contact with, and destroys, most of the bad germs on the hands. To be effective, the product must contain at least 60% alcohol. Be sure to check the label carefully as not all brands are the same.²

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When should alcohol-based hand sanitizers be used?

Hand sanitizers should be used when the hands are not visibly soiled or visibly dirty. They should also be used under adult supervision to ensure only a dime-sized amount is used.

What is respiratory etiquette?

Respiratory etiquette is also known as cough etiquette. It is a simple term for an important infection control practice that involves covering coughs and sneezes with the upper sleeve to prevent the spread of germs. A tissue may also be used. The main method of spreading viral illnesses, like colds and the flu, is from person to person through the respiratory droplets of coughs and sneezes. This is called "droplet spread".¹

Why shouldn't we use our hands to cover coughs and sneezes?

Historically, it's been considered common practice, as well as the polite thing to do. People would prevent the droplet spread by covering their mouth or nose with their hands. However, we now know that using the hands can result in spreading the germs to others. If someone coughs or sneezes on their hand, they can then spread the germs as they touch a door knob, a keyboard, a telephone or a light switch. As a result, someone else can get sick if they touch one of the contaminated surfaces.

Are there resources available to promote and teach correct hand hygiene and respiratory etiquette?

Teachers and parents can download resources (lesson plans, colouring sheets, activity sheets, fact sheets) from tbdhu.com/id ("Clean Hands"). Videos and other interactive resources are also available to borrow from the Health Unit's library or from any branch office. Public health staff is available to answer any questions. Please call the Infectious Diseases program at 625-8318 or the Health Promoting Schools Program at 625-5917. In the district, call toll free 1-888-293-6630 (ext. 8318 or 5917) or contact the nearest branch office (Manitouwadge, Marathon, Schreiber, Nipigon and Geraldton).

References:

- (1) CHICA-Canada; www.chica.org/links_handhygiene.html (Retrieved September 15, 2010)
- (2) Public Health Agency of Canada; www.phac-aspc.gc.ca/im/iif-vcg/wh-lm-eng.php (Retrieved September 15, 2010)
- (3) Canadian Centre for Occupational Health and Safety; www.ccohs.ca/oshanswers/diseases/washing_hands.html (Retrieved September 15, 2010)
- (4) Provincial Infectious Diseases Advisory Committee (PIDAC) Best Practices For Hand Hygiene; www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_hh_20080501.pdf (Retrieved September 15, 2010)

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