



Hand hygiene review for the new school year

by Michele Brannan, MPAS, PA-C
August 19 2015 10:00 PM

A wiggly worm or tiny toad are fun to play with, as are mud pies by the swing set at recess. But with these moments of fun come exposure to germs.

Hand hygiene is the single most important measure to reduce the transmission of bacteria and viruses from person to person, or from an object to a person. (1) Nowadays, we have very effective methods and products for keeping our hands clean and preventing the spread of harmful germs. Where we fall short is our hygiene practices. (2) We are often forgetful, hurried, or just plain negligent in the participation of thorough hand washing.

Or a kid may want to merely come inside and get a snack before the thought of washing his hands even enters his mind. Further, sometimes they just don't want to, and us parents forget to remind them.

Regardless the message of hand washing is worth repeating as it is the first line of defense against the spread of illness which can make us sick, simply by touching our eyes, nose, or mouth with our unclean hands.

Hand washing has been shown to help minimize the spread of influenza, prevent diarrhea, and decrease the spread of respiratory illness.



Hand washing with soap has been found to decrease diarrhea episodes by 48 percent. (4) The incidence of pneumonia, which takes the life of approximately 1.8 million children per year, can also be decreased with adequate hand washing. According to UNICEF, turning hand washing before eating and after toileting into a habit can save more lives than a single vaccine or medical intervention and can cut deaths from diarrhea by almost half and deaths from acute respiratory illness by one-quarter. (5)

The best approach in washing hands involves rubbing vigorously for at least 20 seconds with soap, preferably liquid soap. Remember to scrub the backs of your hands, wrists, between your fingers and beneath your nails. Use a disposable towel which is more sanitary than hanging cloth towels which are used repeatedly. Use your elbow or the disposable paper towel to turn off the water.

Alcohol-based hand disinfectants, also known as hand sanitizer, is quicker than soap and practical with its rapid antimicrobial effects. They are also effective against viruses such as influenza. (3) Although, the alcohol-based sanitizers do help, they are ineffective against certain powerful bacteria seen mostly in the hospital setting, such as *C. difficile*, which is a cause of severe diarrhea.

When using hand sanitizer, use enough to wet your entire hand, covering the entire surface.

If your hands are visibly dirty, soap and water is still the best recommendation.

When your child is washing, it is handy to have her sing through the "Happy Birthday" song two times to ensure enough time was spent at the sink.

We all know we should wash our hands after restroom use. But here are a few other recommendations that we often need reminding on:

- after touching pets or other animals, such as the toad or worm, mentioned above
- after being outside
- after blowing one's nose
- before eating
- before cooking
- after handling raw food, especially meat
- after cleaning
- before and after visiting with a sick friend or relative
- before inserting or removing contact lenses

Hopefully with the help of adequate hand hygiene, we will have a healthier school year.

REFERENCES:

1. Pittet D, Allegranzi B, Sax H, et al. Evidence-based model for hand transmission during patient care and the role of improved practices. *Lancet Infect Dis* 2006; 6:641.
2. Boyce JM, Pittet D, Healthcare Infection Control Practices Advisory Committee, HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. Guideline for Hand Hygiene in Health-Care Settings. Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. Society for Healthcare Epidemiology of America/Association for Professionals in Infection Control/Infectious Diseases Society of America. *MMWR Recomm Rep* 2002; 51:1.
3. Grayso ML, Melvani S, Druce J, et al. Efficacy of soap and water and alcohol-based hand-rub preparations against live H1N1 influenza virus on the hands of human volunteers. *Clin Infect Dis* 2009; 48:285.
4. Cairncross, S; Hunt, C; Boisson, S; Bostoen, K; Curtis, V; Fung, IC; Schmidt, WP. "Water, sanitation and hygiene for the prevention of diarrhoea". *International Journal of Epidemiology* 39 (Supplement 1); 2010; i193-i205.
5. *The State of the World's Children 2008. Child Survival. UNICEF.*

Michele Brannan is a certified Physician Assistant of Internal Medicine and has been in practice in the Riverbend area for over 10 years.

The health information provided herein is not intended to replace the advice or discussion with a healthcare provider and is for educational purposes only. Before making any decisions regarding your health, speak with your healthcare provider.