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Hand washing vs Hand Sanitizer: Which is better at fighting COVID-19?

Attribute to: Melinda Ring, MD, executive director at the Osher Center for Integrative Medicine at Northwestern Medicine

We've heard the single most important way to prevent COVID-19 infection is to wash our hands with soap and water, and to use alcohol-based hand sanitizer. Dr. Melinda Ring, executive director of the Osher Center for Integrative Medicine at Northwestern Medicine, answers frequently asked questions about keeping hands clean.

Question: What is better, washing hands with soap and water or hand sanitizer? Are they equally good at keeping our hands clean?

According to the Centers for Disease Control (CDC), washing hands with soap and water is preferable to sanitizing gel. The gel may not be as effective as soap in terms of eliminating all types of germs, including some viruses.



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Alcohol based gels and foams where the alcohol concentration is at least 60% can be effective-as long as someone uses it properly. Studies show that often people don't apply enough gel, or wipe it off before it dries. The time required for complete drying ideally is 30 seconds or less, but in some cases it can take over 100 seconds to dry (doesn't sound like a lot, but people tend to reach for a towel or wipe their hands on their pants instead of waiting).

Question: Any tips for making sure you use hand sanitizer properly?

While there are detailed protocols available for how to ensure you cover the whole hand surface, for most people just knowing that they should apply the product to the palm of one hand, using the label-recommended amount, and rub the product **all over** the surfaces of your hands **until your hands are dry** should be adequate.

Question: Handwashing seems so easy it can't possibly be as effective as everyone is saying. Does this really work that well?

Proper handwashing revolutionized medicine back in 1846 when Hungarian physician Ignaz Semmelweis realized that women giving birth in the medical student/doctor-run maternity ward had a much higher rate of fevers and death compared to the women cared for by midwives, who weren't sullying their hands during autopsies and surgeries.

Evidence suggests that proper handwashing with soap may reduce the rate of respiratory infections from 25-50% in some pediatric population studies.

The CDC provides guidelines on proper handwashing, and lots of public service announcements (and Facebook posts) are out there showing people singing different songs to ensure they reach the 20 seconds of recommended scrubbing.

The basic steps:

- 1. Wet your hands with clean, running water (warm or cold), turn off the tap (to save water), and apply soap.
- 2. Lather up by rubbing the hands together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails. (Side note-think about taking a break from artificial nails and long nails since they can trap dirt and germs).
- 3. Scrub your hands for at least 20 seconds-pick a song of your choosing if that's helpful.
- 4. Rinse under clean, running water.
- 5. Dry your hands with a clean towel or air, as wet hands are more susceptible to acquiring new germs from surfaces.

Question? I'm not leaving my house. Do I still need to wash my hands frequently?

Given the delays in coronavirus manifesting as well as the likely contact still with others even through deliveries of groceries and mail, it is important to keep washing your hands at home. Key times to do so (from the CDC):

- Before, during, and after preparing food
- Before eating food
- Before and after caring for someone at home who is sick with vomiting or diarrhea
- Before and after treating a cut or wound
- After using the toilet
- After changing diapers or cleaning up a child who has used the toilet
- After blowing your nose, coughing, or sneezing
- After touching an animal, animal feed, or animal waste
- After handling pet food or pet treats
- After touching garbage

Question: My hands are really dry and chapped. Does putting lotion on my hands after I wash them make the washing less effective?

It's fine to use a moisturizing lotion after hand washing, and in fact it's best to prevent your hands from getting cracked and disturbing the natural barrier to infection. Just keep the bottle/nozzle clean so when you use it you don't pick up the germs you just washed off.