

# Germ Warfare

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**R**iding the subway during a visit to New York, I noticed the woman next to me busily massaging her hands with a lotion soap guaranteed to kill "99.9 percent of all bacteria!" To her left, a man wiped a subway pole with an antibacterial towelette before grasping it for sup-

port. (This may have been my imagination, but everyone on the train also seemed to be breathing less deeply so as to avoid inhaling any stray germs.)

From contagious diseases like tuberculosis to recent encounters with anthrax, SARS and even the Norwalk virus on cruise ships, the American public seems preoccupied with all things microscopic. Such concerns tend to become even more exaggerated this time of year, as children are heading back to the germ-infested school environment.

To supposedly help us cope with these threats, there are more than 1,000 antibacterial household products on the market today, and counting, according to the Alliance for the Prudent Use of Antibiotics. Seventy-five

percent of all liquid soaps and 33 percent of bar soaps sold at your supermarket contain the antibacterial chemicals triclosan and quaternary ammonium compounds. Concerned consumers can purchase antibacterial dishwashing detergents, window cleaners, toothbrushes, cotton swabs, telephone pads and even mattresses impregnated with the stuff.

What the slick labels and advertisements don't tell you is that these products do little good and might even be harmful. Originally, soaps containing antibacterial chemicals were developed for use in hospitals to help protect patients with weak immune systems, who are at risk of contracting infections that rarely plague healthy people. Since their widespread introduction to American homes, antibacterial soaps have had no effect on the incidence of colds and other common infections in those homes, several scientific studies have demonstrated.

More troubling, these chemicals have the potential to kill off sensitive germs that are easily annihilated by the antibiotics — while leaving behind a microecologically open field for antibiotic-resistant bacteria to flourish. In other words, these products may increase the risk of exposure to dangerous, antibiotic-resistant superbugs in your home and on your body — quite the opposite of what they promise.

What to do instead? Wash your hands with plain soap and water. Although it does not kill germs, vigorous washing effectively dislodges them from your hands. Instead of hanging onto your hands and potentially entering your mouth or nose where they can wreak havoc, the germs simply go down the drain. (If you're really concerned about exposure to germs, ordinary rubbing alcohol helps to dry and kill most germs, but does not result in resistance to antibiotics.)

In fact, simple handwashing has been a major factor in the control of contagion for more than 150 years. During the 1840's, Dr. Oliver Wendell

Holmes of Boston and Dr. Ignaz Semmelweis of Vienna separately observed that fewer patients contracted serious infections if their physicians washed their hands before examining them. At the time, many doctors resented the claim that they were endangering their patients' health merely by examining them.

By the 1890's, with the wider acceptance of the germ theory of disease, doctors admonished patients to wash their hands before eating and after handling food, going to the bathroom, handling money, touching their mouth or nose, changing a baby's diaper, or

## Antibacterial products do more harm than good.

playing with a pet. We have repeated this sanitary wisdom ever since.

But let's be honest. Do you scrub your hands with soap and water for 10 to 15 seconds each time as a result of these activities? A study conducted by the American Society for Microbiology found that 95 percent of those surveyed insisted that they always washed their hands after using the bathroom. When secretly observed in public restrooms, only 67 percent washed their hands. Men, incidentally, have more difficulty completing this task: only 58 percent of them washed their hands compared to 75 percent of women.

So, instead of stocking up on useless antibacterial household products to fight off infection, follow the advice of the Centers for Disease Control and Prevention and wash your hands the old-fashioned way. We could all reduce the spread of dangerous germs, if not the fear they inspire, with some plain soap and water. □

