

October 2008 Health Notes by Evelyn Ames

Antibacterial Household Products: Is There a Cause for Concern?

Have you searched store shelves seeking soaps, cosmetics, children's toys, dental care products, deodorants, fabrics, and kitchen looking for items that do not include the use of antibacterial substances, particularly triclosan? It's time you question the use of antibacterial substances in healthy household products. Surface antibacterial substances were developed to prevent transmission of disease-causing microorganisms among hospital patients. They are now added to many healthy household products. Some products (e.g., Tom's of Maine toothpaste) specifically state they do not contain triclosan. "Triclosan possesses mostly antibacterial properties, but also some antifungal and antiviral properties. It is marketed under the trade name Microban® when used in plastics and clothing, and Biofresh® when used in acrylic fibers. Triclosan is most often used to kill bacteria on the skin and other surfaces, although it sometimes is used to preserve the product against deterioration due to microbes" (Glaser, see web site below). [Note: the active ingredient in "instant hand sanitizers" used in hospitals is ethyl alcohol (62%).] Surface antibacterial substances are similar to antibiotics. Antibiotics are critical in the treatment of bacterial infections.

There is public health concern regarding the overuse worldwide of antibiotics. The concern relates to resistance. Many disease-causing bacteria have developed resistance to antibiotics (e.g., penicillin, tetracycline). Stuart Levy (Tufts University School of Medicine) at the 2000 Emerging Infectious Diseases Conference sponsored by CDC, stated there are more than 700 household products containing antibacterial agents, and the added health benefit has not been demonstrated. "However, their purpose is not to cure disease but to prevent transmission of disease-causing microorganisms to non-infected persons. Like antibiotics, these products can select resistant strains and, therefore, overuse in the home can be expected to propagate resistant microbial variants. Moreover, these agents, like antibiotics, are not cure-alls but have a designated purpose. Whereas antibiotics are designed to treat bacterial (not viral) infections, antibacterial products protect vulnerable patients from infectious disease-causing organisms" (CDC, 2000). The Centers for Disease Control and Prevention says that antibacterial soaps are not necessary in everyday use, and washing hands with ordinary soap and warm water is an effective way to ward off infections. Besides resistance, the antibacterial craze has another potential consequence. Reports are mounting about a possible association between infections in early childhood and the incidence of allergies. In expanding this "hygiene hypothesis," some researchers have found a correlation between too much hygiene and increased allergy. This hypothesis stems from studies that revealed an increased frequency of allergies, cases of asthma, and eczema in persons who have been raised in an environment overly protective against microorganisms. For detailed information (e.g., chemical analysis), consider these web sites: Scorecard (information about pollution problems and toxic chemicals): scorecard.org/chemical_profiles/summary.tcl?edf_substance_id=3380-34-5.. EPA and FDA regulate antibacterial substances (www.epa.gov/enviro/html/emci/chemref/3380345.html and www.cdc.gov/ncidod/eid/vol7no3_supp/levy.htm). The Ubiquitous Triclosan article by Aviva Glaser in *Against the Misuse of Pesticides*. Vol. 24, No. 3, <http://www.beyondpesticides.org/pesticides/factsheets/Triclosan%20cited.pdf> Agency for Toxic Substances and Disease Registry (<http://www.atsdr.cdc.gov/mrls.html>) In conclusion, next time you are purchasing hand soaps, toothpaste, or toys for your grandchildren, check the list of ingredients! When washing your hands, sing happy birthday to yourself! That's the amount of time suggested you need wash to appropriately cleanse your hands!