

Health & Cleaning Thought for the Month

"It appears our concerns about infections may have resulted in a "shotgun" approach, an attempt to kill all microscopic organisms, not fully realizing if this is truly necessary or the consequences of our actions."
~Stephen Ashkin

By: Stephen Ashkin, President of The Ashkin Group (As Published in *Executive Housekeeping Today*, September 2004, p 21, 24)

More and more antibacterial products are being introduced into the household and professional cleaning market every year. They were originally developed to help stem the spread of disease and infection in hospital settings where they have made a significant contribution. They are valuable tools - especially when and where used appropriately.

However, they are now being added a variety of home and commercial products where they might not always be necessary and where they potentially may produce harmful results. While the chemical industry does an excellent job testing the safety of their products, we are just beginning to learn about the potential harmful affects of antibacterials over long periods on the environment and on sensitive populations such as pregnant woman, fetuses, young children, and those with compromised immune systems. Additionally, some are concerned that the overuse of antibacterials may make various forms of bacteria resistant to antibiotic treatments.

Product Introduction

Just ten years ago, there were only a few dozen products - including household and professional cleaning products claiming to be antibacterial. Now, there are more than 700, according to the U.S. Centers for Disease Control (CDC), with dozens more products being introduced this year.

The American public appears to be eager to purchase antibacterial products, and manufacturers and retailers are anxious to accommodate them. This is largely because we are hearing more and more about new viruses and diseases entering our shores, causing our fears to mount.

Responding to these fears, manufacturers are producing antibacterials that can quickly kill more than 99.9 percent of all microorganisms - including those that are harmful, harmless, and beneficial. Retail stores and commercial distributors are rushing to oblige frightened consumers by carrying more antibacterial products than ever. A 2000 study by the University of Maryland found that 76 percent of all liquid soap and 30 percent of all bar soaps now contain antibacterial agents, up from virtually none a decade ago.

Prudent and Appropriate?

It is prudent and appropriate in a hospital or healthcare setting, for instance, to use antibacterial cleaning products in such areas as surgical and exam rooms. And, doctors and nurses should use antibacterial hand soap between patients.

However, in that same hospital it would be just as appropriate to provide non-antimicrobial containing cleaning products and hand soap in the visitor's public washrooms or in restrooms provided for the hospital's administration department, mail rooms, shops, and other low-risk areas of the facility.

Except for medical, food preparation and a few other set-

tings, there simply appears to be little scientific evidence indicating that the average consumer benefits from using anti-bacterial products. Indeed, some studies indicate there is absolutely no benefit to the consumer at all.

Dr. Elaine Larson, a professor at Columbia University in New York City, conducted a survey in 2000 that was later published in the *Annals of Internal Medicine*. She followed 238 American households with at least one preschool-age child for one year. Some of the households used antibacterial products for general cleaning, laundry, and hand washing; others used products that did not contain antibacterial agents.

Larson found no significant difference between the two groups. Further, the study found that because viruses - not bacteria - are the cause of most household infections, the antibacterial agents offered no benefit at all. Strictly speaking, antibacterial products are not meant to kill viruses.

Antibacterials and the Environment

Most antibacterial soaps and cleaning products on the market today contain chemicals that work by inhibiting the production of certain proteins in bacteria similar to the way antibiotics kill bacteria. This similarity causes some scientists and medical professionals to be concerned that an antibacterial-resistant strain of bacteria would also be resistant to antibiotics.

There also are concerns about the long-term effects of some of these chemicals on the environment. According to biology and marine scientist Dr. Angela McGhee, "The chemical ingredients, formulation, and molecular structure of some chemicals found in antibacterials [may] make them both a human health risk and an environmental risk."

It appears that our concerns about infections may have resulted in a "shotgun" approach - an attempt to kill all microscopic organisms, not fully realizing if this is truly necessary or the consequences of our actions.

Again, no one is saying we should stop using all antibacterial products as they are valuable "tools" in our toolbox to protect public health. However, their regular or daily use in many settings such as the home, work, or school may not be necessary. Whether cleaning hands or surfaces, our objective is to remove soils - including bacteria and viruses - rinsing them down the drain to reduce exposures to harmful pathogens. This does not mean that we have to kill all organisms everywhere, but to use common sense, and to reserve the use of these powerful antibacterials only where necessary and



A 25+ year veteran of the cleaning industry, Steve Ashkin is the author of *Green Cleaning for Dummies* and a tireless advocate for environmentally preferable cleaning products. Often referred to as the "father of green cleaning," you can get more information at www.ashkingroup.com.