

## Update 3

### Health: are we searching in all the wrong places?

All germs are bad and the less we have of them the better. Or at least that appears to be the thinking that seems to be driving a growing demand for products that contain antimicrobial/antibacterial agents. You name it and increasingly manufacturers are providing a version that contains one of a number of broad-spectrum germicides. For example, you can now buy antimicrobial toys, food preparation items, toothpaste, dental floss, hand soaps, dishwashing liquids, sponges, dishcloths, cutting boards, furniture, and window cleaners. In the US you can even buy mattresses, pillows, sheets, towels, and slippers impregnated with antibacterial agents.

But do the use of such products really lower the risk of infection and are there any unhealthy side effects to the use of such products?

#### Do products impregnated with germicides lower the risk of infection?

Many childhood and adult communicable diseases are viral in nature, not bacterial. Antimicrobials can affect bacteria but not viruses. A person recovers from a viral infection (sore throats, colds) when the illness has run its course.

Elaine Larson, an M.D. and a professor at Columbia's school of public health, has stated in the peer-reviewed literature, "Available data do not support a recommendation for bathing with antimicrobial products." *Emerging Infectious Disease*, CDC, vol. 7, no. 2, Mar.-Apr. 2001.

Furthermore, the Association for Professionals in Infection Control and Epidemiology, Inc. (APIC) has issued a position statement on the use of antimicrobial household products (1997) that still stands today: "There is no proven infection prevention benefit in the use of these products. APIC does not advocate the use of antimicrobial household products which are marketed with the implication of preventing infections."

#### Are there any side effects to using products that contain antimicrobials?

Many researchers are concerned that these household products could be hazardous to our health. For example it has been suggested that the widespread use of germicides in household products may generate a strain of resistant bacteria, causing them to lose their effectiveness. A study conducted by a geneticist at Tufts University, published in the scientific journal *Nature*, suggests that the germicides increase the potential for bacteria to develop resistant.

Even if products impregnated with germicides were able to decrease infections, might there be a price? A number of studies now suggest that being exposed to 'normal' childhood coughs colds and other infections may help a child's immune system to mature normally and thereby help prevent the subsequent development of asthma, atopic dermatitis, and hay fever. (Matricardi PM, et al. Hay fever and asthma in relation to markers of infection in the United States. *J Allergy Clin Immunol* 2002;110:3 81-7).

In summary, being clean, through the use of products impregnated with germicides, doesn't mean you're safe from infections. Even if it did you might not be healthier -- infections are actually a normal and important part of growing and maintaining a healthy immune system.

Instead of focusing on how to kill germs, you will be better served by thinking about how to strengthen and optimise your body's ability to adapt. I think it was Thomas Edison who is credited with having said, "The doctor of the future will give no medicine, but will interest his patients in the care of the human frame, in diet, and in the cause and prevention of disease".