

# health hints

## Kitchen Safety Starts With Clean Surfaces

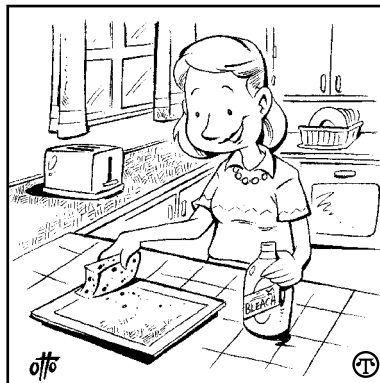
(NAPS)—Whether on kitchen surfaces, cutting boards or bathroom tiles, disease-causing bacteria are the most common uninvited guests in the home. Unfortunately, too many people are not taking the necessary steps to ensure that their homes are protected from disease-causing germs; instead, they are relying on homemade concoctions that are often ineffective and even potentially dangerous.

A study by scientists at the University of North Carolina found major differences in the effectiveness of various disinfectants. According to Dr. William A. Rutala, the author of the study, tests confirm that commercial products such as chlorine-based household sanitizers kill more than 99.9 percent of bacteria, including *E. coli* and *Salmonella*, while “such natural products as vinegar and baking soda don’t work nearly as well.”

In fact, these homemade cleaners are 100 times less effective at killing bacteria than commercial products. The difference in effectiveness is illustrated through the example of a household sponge. A single sponge can contain as many as 320 million bacteria. When disinfected with bleach, nearly all of the bacteria are killed, but if treated with vinegar or baking soda, more than 31 million bacteria can remain in the sponge. These germs can sicken family members who handle the sponge.

Homemade mixtures of natural products are not only less effective at killing germs than commercial disinfectants, they also can be dangerous. For instance, combining baking soda and vinegar can cause a container to swell and break. Combining hot water, lemon juice and vinegar actually helps to spread disease-causing bacteria, rather than killing them. In contrast, commercial products are extensively tested to ensure their safety and effectiveness; they are clearly labeled with directions for use and safety precautions.

According to Kip Howlett,



**Chlorine bleach and cleansers containing it are considered the best weapons against bacteria.**

Executive Director of the Chlorine Chemistry Council, “Keeping families safe from germs means protecting homes with the best disinfectant available. Studies have shown that commercial sanitizers are the most effective disinfectants and should therefore be relied on to rid houses of disease-causing germs.”

In an interview with the *Arizona Republic*, Chuck Gerba, a University of Arizona professor of microbiology, recommended using chlorine bleach (and products that contain it) for cleaning because bleach kills both viruses and bacteria, unlike anti-bacterial products that only attack the latter.

To safeguard against microbes around the home, consumers should therefore sanitize cutting boards, countertops and surfaces with a solution of one to three tablespoons of household chlorine bleach per gallon of water, let it stand for two minutes, rinse and air dry. A stronger disinfecting solution of  $\frac{3}{4}$  cup bleach in one gallon of water should be used for sponges, dishcloths and dishtowels. After soaking for two minutes, rinse and air dry.

More information about the benefits of chlorine-based disinfectants is available from the Chlorine Chemistry Council (<http://c3.org>), 1300 Wilson Boulevard, Arlington, VA 22209.