



Play Safer Fact Kit

Where Germs Are Lurking

NSF International is an independent, not-for-profit public health organization that writes public health standards for food, water and consumer products. NSF also tests and certifies products to make sure they meet these standards. NSF has a 65-year history of protecting public health, safety and environment worldwide and is a World Health Organization Collaborating Centre for Food and Water Safety and Indoor Environment. NSF helps educate consumers and children about the importance of handwashing.

NSF International's microbiologists set out once again to find out where germs hide in schools and other public places as part of the ongoing NSF Scrub Club® handwashing public service campaign. Teaming up with *Real Simple Magazine* this past summer, this time NSF's experts swabbed key surfaces in local schools, grocery stores, and other public places.

Although all germs are not harmful, the existence of germs on the tested surfaces indicates there are favorable conditions for microorganisms to grow and survive, which could create an environment for disease-causing viruses and bacteria, such as E. coli and Salmonella. In other words, the higher the level of bacteria, the higher the probability that some of those bacteria are harmful.

The Results

As part of this most recent study, NSF microbiologists swabbed 26 different public places, testing for the level of Aerobic Plate Count (APC) at each location, also known as the general bacteria population. NSF's team of microbiologists found that the location that harbored the highest level of bacteria was a playground sandbox, revealing an APC count of 7,440 bacteria/inch². Sandboxes are actually an ideal setting for bacteria, as they not only are exposed to wildlife, such as cats and raccoons, but they can also hold on to the bacteria that is left from human contact, such as saliva, food items, and other bacteria from human hands.

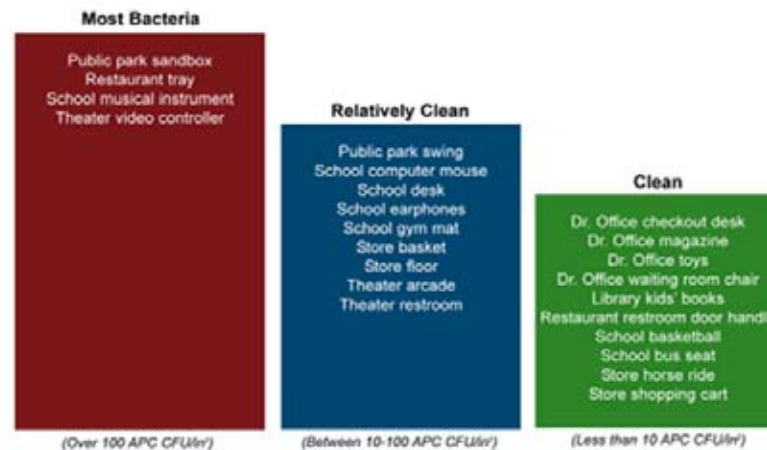
Another place that germs were found in high numbers was on video game controllers. When NSF microbiologists swabbed a game controller at a movie theatre that had just recently been cleaned by theatre staff, the test results still showed an APC count of 551 bacteria/inch². Aside from a school musical instrument and a restaurant serving tray, which showed an APC count in the 200s, the rest of the 22 swabbed locations produced an APC count below 100, which by many standards would be considered clean.

NSF microbiologist Robert Donofrio noted that it is important to consider three "growth factors" that determine a surface's potential for harboring germs and bacteria: the type of surface, temperature, and moisture level. Non-smooth, warm, and moist areas tend to create ideal conditions for thriving bacteria to grow and hide.

In past studies, Donofrio noted that NSF had found that objects such as water fountain spigots and cafeteria trays had more microorganisms than the commonly cleaned areas, such as bathrooms and gym mats. Although NSF's findings are a snapshot in time at the tested sites, the results reveal that we all need to be vigilant about sanitizing those hard-to-reach areas that people may forget to clean.

It also reinforces the importance of teaching proper handwashing from an early age to protect against potentially harmful bacteria, viruses and other germs.

To learn more about proper handwashing, visit the Scrub Club® at www.scrubclub.org.



NSF International

789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140
Consumer Hotline: 1-888-99-SAFER Website: www.nsf.org