

Clean Sweep

Is your kitchen in need of one? Consultant Tom Johnson shares his tips for a more effective cleaning and sanitizing regimen.

By Tom Johnson, President
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Cleaning and sanitizing procedures have come a very long way in the past 50 years, much further than most realize. Most of the progress is due to our new found understanding of disease-causing organisms and the environments we share. Prevention, nonetheless, remains elusive if not momentary because doing the job right takes more than a short cut. The difficulty with effective cleaning and sanitizing programs is that they are hard work, mundane and in need of constant discipline and attention. Nonetheless, they are crucial in helping foodservice operators guard against the constant threat of food borne illness and litigation.

If you're among those who are just going through the motions when it comes to sanitation, the following are a few preventative methods and procedures that will help you develop an effective cleaning/sanitizing regimen:

1) Clean with order in mind. Start by cleaning food machinery and then the space immediately around and beneath it. Work all clean areas toward the soiled area, starting at the point furthest from the door (egress). Clean floors and maintain floor drains first AND last, and try to minimize aerosols from all of the activity. The person that cleans becomes contaminated so hand washing is important before sanitizing.

2) Learn the proper way to clean cutting boards. Cutting boards must be washed, rinsed, air dried and sanitized. Start by using a brush. You need the friction (kinetics) of the nylon bristle to knock food debris free from its pinch points in the crevasses of the board. This is no different than hand-hygiene regimens where a portion of the log reduction is attributable to simple kinetics (friction/agitation).

Discolored cutting boards *cannot be sanitized* as the discoloration is due to mold and its presence as a biomass disables the sanitizer's effect. If they cannot be made smooth by planing or sanding, they must be replaced. If boards do not fit flat into a sink or into a dishwasher they are more likely to not be cleaned, or effectively sanitized. One option is to use puzzle cut boards...they quickly tear down into convenient wash sizes and easily reassemble to form a larger cutting surface. BioGuard Plastics (<http://www.bioguardplastics.com>) not only has puzzle cut boards,

but they are treated with AgION's silver ion antimicrobial to control the growth and migration of micro organisms on their treated surface.

3. Rely on your brush. Ironically, a brush is one of the most important foodservice cleaning tools, yet one of the least used. It is the only tool available to mechanically remove food debris in a crack, or crevice. Workers using brushes and cleaners on soiled utensils and equipment or contact surfaces should also wear gloves and eye protection. The bristles scatter water droplets and if there are microbes entrained, they, too, will get in your eyes if not protected. This is especially true with cutting boards and wherever splash or deck mount faucets or other hardware intersects direct and indirect food contact surfaces at right angles.

4. Use pressure sprayers with caution. One of the biggest spreader of germs in kitchen cleaning systems is the pressure sprayer. Though they are a great convenience for removing contaminants from the target surface, the debris gets splattered everywhere in an uncontrolled manner.

5. Know your sanitizer. Once sanitizers are brought out, everything else should be put away. Sanitizers should be applied as a liquid stream and then allowed to evaporate on the surface intended to be sanitized. Quats or detergents derived from quaternary ammonium (QAC's) leave a residue that can be a help for some applications, but a hindrance when a surface or article must immediately be pressed into service. That's because only certain QAC's and concentrations are approved as food ingredients and any "off label" residues not specifically mentioned in the code (40CFR 180.940) are adulterations. Furthermore, though QAC's are an approved sanitizer (at 75F, 200PPM) and widely used, there is no data to indicate effectiveness for virus (exception; certain new QAC's registrations above 400PPM have species specific data). One virus, norovirus (formerly called Norwalk like virus) is responsible for 2/3rds of *all illness* in America according to CDC's mortality statistics.

6. Make hand washing easy. Since hand washing is the single most important cleaning and sanitizing effort, make it convenient and compulsory. One day everyone will be afforded the opportunity to wash their hands right at the salad bar,

cafeteria counter, supermarket produce display or anywhere else unwrapped food is made available for self service. The data implicating this activity in cross contamination of pathogenic organisms is overwhelming. Brevis Corp has some great training ideas with their glow germ product and other tools for the QA trainer. One of their resale items is a unique UV LED light from Ionova that fluoresces depositions that were missed on the first pass of cleaning (see <http://www.haccpstore.com>).

One last major consideration...all micro organisms are heavier than air. Ultimately, everything hits the floor and you step in/on it. We then track this stuff everywhere we go. Floors too can be sanitized, but not with a detergent.

Naturally, doing the job RIGHT takes more time than a short cut, and using elbow grease and a standard sanitary operating procedure (SSOP) is more difficult than just making it look good going through the motions. But you'll recognize an effective SSOP by the lack of emergencies, recalls and/or litigation. The absence of a problem is hallmark of prevention.

Pull Quote: One of the biggest spreader of germs in kitchen cleaning systems is pressure sprayers. Though they are a great convenience for removing contaminants from the target surface, the debris gets splattered everywhere in an uncontrolled manner.

Sidebar: Innovations in Sanitation

Cleaning and convenience do not fit well in the same sentence. NO WORK is the end game for convenience. Though there are some improvements and new technologies that can help with our prevention effort, they are not silver bullets onto themselves. For example, new materials are available from AgION Technologies that use ionic silver in their composition to inorganically control growth and migration of micro-organisms on their surface. BioGuard Plastics (<http://www.bioguardplastics.com>) puts it into cutting boards, Dexter Russell into knife and utensil handles and Saniguard has a myriad of faucets and other hardware components with the same treatment. AgION's (zeolite carrier for silver ion) is also incorporated into tile grout, floor finishes and adhesives. Additional

inorganic antimicrobial interventions can be found at <http://www.agion-tech.com/corporate5.asp> . Such advancements are a help to food operations, but they do not take the place of the effort of cleaning and sanitizing.

Another innovation we are all sure to hear more about in coming years is the emergence of on-site generation equipment to very inexpensively produce a potent cocktail of mixed oxidants such as hypochlorous acid, chlorine dioxide and ozone at neutral pH all from a dilute saline solution (<http://www.bakhir.ru> <http://www.ectintl.net> <http://www.hydrofem.com>). It's fantastic to think that you can produce huge volumes of broad spectrum sanitizers for a wide range of uses for pennies per batch with no toxicity or environmental impact. These and other innovations in hygiene systems can have a very positive impact on prevention, but only when integrated into a sensible cleaning and sanitizing program.

Tom Johnson, Spring, 2006
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