

## Sanitizing Food-contact Surfaces with Bleach Solutions in Restaurants and Institutions

By Linda F. Golodner and Guest Authors Michèle Samarya-Timm, MA, HO, MCHES, REHS, Francelli Lugo, MPH, and Kaitlin Greenberg, MPH

August 9, 2019

Although the [U.S. food supply is generally considered to be safe](#), foodborne illnesses continue to take a toll in our country. Nearly every month we hear of a [food-related illness outbreak](#) or [recall](#), prompting a mental check of whether we might have purchased the offending product, consumed it, or stored it in our kitchens. According to the Centers for Disease Control and Prevention's (CDC's) [National Outbreak Reporting System](#), in the 17-year period from 2000 to 2017, over 18,000 foodborne outbreaks were reported, involving more than 350,000 cases (approximately one per 1,000 people in the U.S.) of illness, over 15,000 hospitalizations, and nearly 350 deaths from consuming unsafe foods. Moreover, these numbers likely underreport the actual U.S. statistics as [CDC estimates](#) that *each year*, 48 million people experience foodborne illness, 128,000 are hospitalized, and 3,000 die.



### *Food Safety for Restaurants and Institutional Kitchens*

[CDC notes](#) over half of all reported U.S. foodborne illness outbreaks are associated with restaurants, banquet halls, schools, and other institutions. *But foodborne illness outbreaks are preventable.* The Partnership for Food Safety Education recommends [four core “Fight BAC!” practices](#) to avoid foodborne illness, which includes cleaning hands and food-contact surfaces, separating foods to avoid cross-contamination, cooking foods to safe internal temperatures to kill pathogens, and chilling foods to slow the growth of harmful bacteria.

Focusing on the “clean” step, we participated with a small group of public health and consumer advocacy experts to develop a series of posters featuring easy-to-follow directions for cleaning and sanitizing food-contact surfaces in restaurants and institutional kitchens. The fruits of our labor are the three posters shown below.

### *The Invisible Culprits*

Foodborne illnesses are usually infections caused by bacteria, viruses, or parasites, but as [CDC notes](#), harmful toxins and chemicals can also contaminate foods and cause illness.

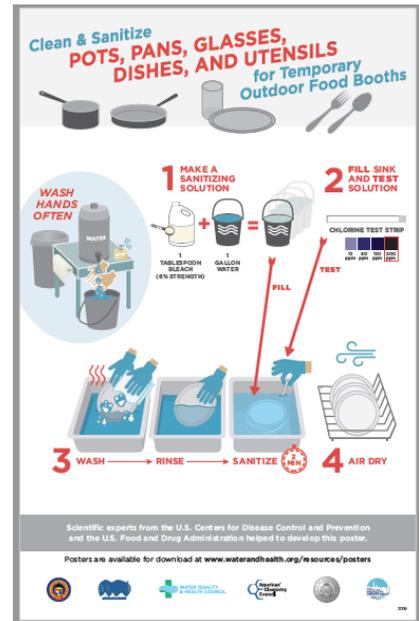
The top five foodborne pathogens are [norovirus](#), [Salmonella](#), [Clostridium perfringens](#), [Campylobacter](#), and [Staphylococcus aureus](#) (Staph). Four other microbes cause fewer cases of illness, but the illnesses they cause are more likely to lead to hospitalization. These include [Clostridium botulinum](#) (botulism), [Listeria](#), [Escherichia coli](#) (*E. coli*), and [Vibrio](#).



Poster "A"



Poster "B"



Poster "C"

The posters were developed "pictogram" style to accommodate food handlers who could benefit from simplified instructions, such as those with English as a second language and people with limited reading skills. Our goal was to communicate accurate information using simple images and minimal text. Poster "A" instructs in cleaning and sanitizing food contact surfaces, such as deli slicers, food prep tables, and prep-line coolers. Poster "B" addresses items that may be cleaned and sanitized in a 3-compartment sink, such as pots, pans, glasses, dishes, and utensils. Poster "C" is specific to temporary outdoor food booths and includes the requirement of a temporary hand washing station. All three posters demonstrate the correct order of procedures: cleaning BEFORE sanitizing. It is recommended that food contact surfaces be sanitized with an appropriate bleach solution made by diluting 1 tablespoon of regular bleach (approximately 6% strength and with an EPA registration number) to 1 gallon of water. A pictogram shows the use of chlorine test strips to confirm the free chlorine level limit of 200 parts per million (level limit). After cleaning and sanitizing, food contact surfaces must be allowed to air dry and the surface must remain wet for at least 2 minutes to achieve effective sanitation.

These posters are freely available for download at: [www.waterandhealth.org/resources/posters](http://www.waterandhealth.org/resources/posters). They can be laminated and posted in restaurant and institutional kitchens and temporary food booths. We invite you to spread the word about the new posters to help reduce foodborne illness in the U.S.

*Linda F. Golodner is President Emeritus of the National Consumers League and Vice Chair of the Water Quality & Health Council. Michele Samarya-Timm is a health educator and registered environmental health specialist at the - Somerset County (NJ) Department of Health. Francelli Lugo and Kaitlin Greenberg are epidemiologists at the City of Albuquerque Environmental Health Department.*