

# CLEANING AND SANITIZING THE KITCHEN

**May 2024** 





# Reasons to Clean

One way to prevent foodborne illness is a clean kitchen. The kitchen is the main place for eating and food preparation, so it is a hot spot for all types of disease-causing microorganisms (pathogens) that can cause foodborne illness. Bacteria can be on a surface that appears to be clean. These bacteria can contaminate food and cause illness.

### **Most Common Diseases**

Salmonella, Campylobacter, and Norovirus are the most common microorganisms that cause foodborne illness in the kitchen.

- *Campylobacter* can be caused by eating raw or undercooked poultry or eating something that touches it. It can live up to 4 hours on your kitchen counter.
- *Salmonella* can be present in raw meat, poultry, and seafood and in raw or undercooked eggs. It can live on a surface for 32 hours.
- Norovirus can be transmitted from undercooked shellfish harvested in contaminated water and can live on your counter for up to two weeks.

# **Cleaning**

The United States Department of Agriculture (USDA) uses a two-step method in restaurants and other food service operations. This method can be used in your home kitchen. The USDA process involves cleaning first and then sanitizing second to avoid the spread of microorganisms.

*Clean:* With warm, soapy water clean to remove residues like dirt and debris. Surfaces including:

- Counters
- Appliances
- Cutting Boards
- Dishes
- Utensils (Knives, Forks, and Spoons)
- Pots and Pans

Rinse with clean water. Air dry or dry with a clean, single-use paper towel. If clean kitchen clothes or towels are used, they should be replaced daily and washed frequently in a washing machine on the hot cycle.

Sponges are **not** recommended for kitchen use because they have deep crevices where bacteria can hide and spread from one surface to another. Also, don't forget to wash your hands with running water and soap water to keep them clean.

# **Sanitizing**

Sanitize: After cleaning, the next step is sanitizing to reduce any remaining bacteria to a safe level. There are a variety of sanitizers you can use at home. Some wipes were originally designed for bathrooms, not to wipe hands or clean counters, and may act as a chemical contaminant on food surfaces.

Lysol or Clorox brand regular disinfecting wipes are too concentrated of a solution for food-contact surfaces.

- Spray or pour the sanitizing solution on surfaces.
- Leave sanitizer on the surface for the suggested amount of time.
- Dry with a clean paper towel or allow to air dry.
- Be sure the surfaces are completely dry before using them or the sink again.

Follow the manufacturer's instructions on the label if using commercial sanitizers. Some commercial sanitizers require food surfaces to be rinsed after use.

Sanitizing is most effective on clean surfaces. So, don't skip the clean step! Also, remember to wash your hands after the surface is cleaned and sanitized.

### **Bleach Dilution Calculator**

For guidelines on how to prepare your own sanitizing solution, use the online Bleach Dilution Calculator to find the correct recipe: <a href="https://www.omnicalculator.com/chemistry/bleach-dilution">https://www.omnicalculator.com/chemistry/bleach-dilution</a>

# **Sanitizing Solution**

The Wyoming Department of Agriculture recommends making homemade sanitizer by mixing unscented chlorine bleach with water to make a solution of 50 to 100 ppm.

- Read the label on the bleach bottle to determine the bleach strength. For example, "Sodium Hypochlorite....6.25% or 8.25%."
- Do not use scented, concentrated, or gel bleach because it is not food-safe.
- The ideal concentration for a bleach sanitizer for food-contact surfaces is 50–100 parts per million (ppm). To know if you have met this concentration, use chlorine test strips to test your mixed solution. Do not use pool test strips.
- Too concentrated of a solution can be harmful, but too little can be ineffective.
- Room temperature water should be used to minimize chlorine loss in the solution.
- Never mix bleach with ammonia, any other cleaner, or chemical.
- Chlorine solutions must be made at least weekly and stored in a dark place.

# **Solutions Chart**

BLEACH SOLUTION 3 (100 ppm)		
Water	Regular Bleach 5.25%	Ultra Bleach 6-6.25%
1 gallon	1 1/2 teaspoons	1 teaspoon
1 quart	3/8 teaspoon	1/4 teaspoon
1 pint	3/16 teaspoon	1/8 teaspoon



# **Sanitizing**

Cleanliness in the kitchen begins before you start preparing food. Everything that comes into contact with your hands or food must be thoroughly cleaned and sanitized. Harmful bacteria that are not visible may thrive and multiply in food prepared by unclean hands in an unclean kitchen, so get off to a clean start before preparing food. Follow this two-step method to leave your kitchen spotless and eliminate the pathogens you can't see.

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### **Sources**

Carothers, P. by M. (2019, August 27). Clean then sanitize: A one-two punch to stop foodborne illness in the kitchen. USDA. <a href="https://www.usda.gov/media/blog/2019/08/27/clean-then-sanitize-one-two-punch-stop-foodborne-illness-kitchen">https://www.usda.gov/media/blog/2019/08/27/clean-then-sanitize-one-two-punch-stop-foodborne-illness-kitchen</a>

Centers for Disease Control and Prevention. (2023, February 16). Campylobacter (Campylobacteriosis). Centers for Disease Control and Prevention.

 $\frac{https://www.cdc.gov/campylobacter/faq.html\#:\sim:text=Most\%20C}{ampylobacter\%20infections\%20are\%20probably,and\%20by\%20d} \\ \frac{https://www.cdc.gov/campylobacter/faq.html\#:\sim:text=Most\%20C}{ampylobacter\%20infections\%20are\%20probably,and\%20by\%20d} \\ \frac{https://www.cdc.gov/campylobacter/faq.html\#:\sim:text=Most\%20C}{ampylobacter\%20infections\%20are\%20probably,and\%20by\%20d} \\ \frac{https://www.cdc.gov/campylobacter/faq.html\#:\sim:text=Most\%20C}{ampylobacter\%20infections\%20are\%20probably,and\%20by\%20d} \\ \frac{https://www.cdc.gov/campylobacter}{ampylobacter}$ 

Centers for Disease Control and Prevention. (2023, April 24). Salmonella. Centers for Disease Control and Prevention. <a href="https://www.cdc.gov/salmonella/general/index.html">https://www.cdc.gov/salmonella/general/index.html</a>

Centers for Disease Control and Prevention. (2023, November 9). Prevent Norovirus. Centers for Disease Control and Prevention. <a href="https://www.cdc.gov/norovirus/about/prevention.html">https://www.cdc.gov/norovirus/about/prevention.html</a>

A clean safe kitchen. The FACS of Life. (2022). https://facsoflife.extension.uga.edu/2022/11/a-clean-safe-kitchen/

Cleaning vs. sanitizing. Food & Health. (2020). https://www.canr.msu.edu/videos/clean-vs-sanitize

The Clorox Company (2024). How to Wash and Sanitize Dishes with Bleach. Clorox. <a href="https://www.clorox.com/learn/how-to-sanitize-dishes-with-bleach/">https://www.clorox.com/learn/how-to-sanitize-dishes-with-bleach/</a>

Wyoming Department of Agriculture (n.d.). Chlorine Calculator Explanation. Consumer Health Services Related Forms. <a href="https://agriculture.wy.gov/corecode/uploads/document6/uploaded\_pdfs/corecode/chlorineppmcalculatorexp-820.pdf">https://agriculture.wy.gov/corecode/uploads/document6/uploaded\_pdfs/corecode/chlorineppmcalculatorexp-820.pdf</a>



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