

## Chapter Two

# THE MECHANICS OF THE OPERATION

### A QUICK FOOD SAFETY REVIEW

In every food service operation and at every event where food is served, the rules of food safety have to be strictly followed. You want to get into the newspapers because of your excellent cuisine, not for how many customers wound up in the emergency room after eating one of your meals!

No matter the size of your operation, here are some food safety absolutes; for more detail, we have included a list of resources on page 23. Also see Appendix E on page 255. Practice food safety techniques all the time and be sure to train all your food-handlers, servers, drivers, volunteers, or anyone who will be preparing or serving your food.

**Wash your hands:** provide separate handwashing facilities which have hot and cold running water, soap, and single-use towels or an air dryer (for example, that means no washing your hands in the same sink in which the lettuce gets washed). In order to get rid of bacteria on the skin, you have to soap and lather for at least 20 seconds and then thoroughly rinse. It has been estimated that a food service employee working an eight-hour shift should hand-wash at least fifteen times! And, by the way, it has been estimated that at least 3 million cases of food-borne illness per year are caused by poor (or no) hand-washing practices. And we all know that rings, watches, bracelets, fingernail polish, and artificial fingernails have no place in the kitchen, right?

**Avoid cross-contamination:** bacteria can be spread from person to person, person to food, from food to food, and then make the circuit again and again. An example of cross contamination would be cutting tomatoes (which are going in the soup), then cutting lettuce (which is going in a salad) with the same cutting board and knife without sanitizing the knife and board between uses. If there was any dirt or bacteria on the tomatoes, we can hope that the cooking

temperatures will kill the contamination. However, the lettuce doesn't stand a chance; it's going to be served in an uncooked salad. Any dirt or bacteria on the lettuce will be served right to the customer. This can be avoided by sanitizing equipment and utensils before and after use, either with heat (165 degrees or above) or with chemicals (good old chlorine bleach is inexpensive, effective, and vegan) for 20 seconds. We find the most convenient way to sanitize is to provide "bleach buckets." We purchase children's beach pails, fill them with water and bleach (a Tablespoon of bleach per gallon of water), and provide one for each workstation. A clean towel, soaked in bleach solution can be used to sanitize when using the pot sink isn't convenient. Other examples of cross contamination include an employee taking a smoke break or using the phone and going back to food prep without washing hands; placing unwashed produce or food containers on a food surface and then prepping food on the unsanitized surface; or shaking hands and serving food without sanitizing hands.

This would be a good place to speak about using gloves. Gloves can only serve as a barrier to bacteria if the person wearing them washes their hands before putting them on and uses fresh gloves between tasks (to avoid cross contamination). Employees with skin tears (like blisters or cuts) should wear gloves until the tear is healed. Frequently washed hands are the equivalent of gloved hands. Check what the local health codes require.

**FIFO:** This stands for "first in, first out." It is a rotation method that should be used for food and non-food items. Using FIFO ensures that ingredients are used at their freshest and their safest (this is a wise economic and quality method).

**Keep hot foods hot and cold foods cold:** Perishable foods (including all cooked foods, soy products such as tofu or milk, reconstituted egg replacer, etc.) support illness-causing bacteria if not kept above 140 degrees Fahrenheit (in a chafing dish, warmer, on the steam table, etc.) or below 40 degrees Fahrenheit (in the refrigerator, freezer, or on ice). If kept out for 4 hours between 40 to 140 degrees Fahrenheit, perishable food is almost guaranteed to get someone sick. Leftovers (for example, carrot soup or pasta primavera) must be reheated to 165 degrees Fahrenheit when served a second time. There are no more than two chances even with the most carefully handled food: prepare it and serve it, serve it as a leftover, and then, that's it! So, calculate your production needs accurately, so you don't waste time, money, and labor (and possibly risk getting someone sick).

**When in doubt...throw it out!:** Protein-rich foods, such as bean soup or soy products, should not be kept for more than 48 hours refrigerated (check local health codes). So if you over do it on the tempeh loaf, either freeze it right

away (where it can be kept for several weeks) or plan some menus around it. Don't wait until something waves at you before discarding it! Remember, the taste test doesn't prove anything. If you don't recall when you made that batch of split pea soup, but it tastes okay, forget about it! Take your losses; better to lose a couple of dollars than customers.

**Wrap, label, and date:** If you do this consistently, you will probably be able to avoid the previous step. Some facilities have preprinted labels to which only dates need to be added and some use a color-dot system.

**Serve correctly:** train your staff to keep their thumbs out of the soup and the iced tea; to use separate utensils to serve separate items; to keep the soup hot in the chafing dish; and the salad iced down. No sense in taking all the correct food prep precautions just to be sabotaged by the service staff.

**Sanitize, sanitize, sanitize:** we want to see those bleach buckets (or whatever system you devise) in the kitchen and the dining room and we want to see them used!

**Use reputable food sources:** You can risk getting a "good deal" on a watch or on real estate. When it comes to the ingredients you are purchasing, be sure you have seen the warehouse, gotten references, and done whatever checking is necessary to ensure that your supplier is giving you the freshest, quality ingredients available.

**S**ome people with whom we have worked have been trained to think of animal products (meat, dairy, eggs, etc.) as causing food-borne illness and non-animal products as more benign. This is not so! Bacteria need air, moisture, an energy source (food), a neutral environment (not acid or alkaline), temperature (remember 40-140 degrees Fahrenheit), and time (4 hours) in order to grow, multiply, and contaminate your food. Cooked rice and potatoes, lentil loaf, and soy milk can supply all these things to any bacteria, which finds its way onto them. Bacteria does not play by different rules for different foods, so keep a clean and sanitized work and service area, use FIFO, watch your temperatures, and all the other rules of food safety and your customers will enjoy their meals with you (and live to come back for more).

## **SOURCES FOR FOOD SAFETY INFORMATION**

### **USDA**

1. [www.fsis.usda.gov/Food\\_Safety\\_Education/](http://www.fsis.usda.gov/Food_Safety_Education/)  
Portal to all USDA food safety information.
2. [www.fsis.usda.gov/ask\\_karen/](http://www.fsis.usda.gov/ask_karen/)  
This can be used via your computer or phone app. Access "frequently asked" questions, or send a food safety inquiry via Twitter, email or Live Chat.
3. [www.foodsafety.gov/](http://www.foodsafety.gov/)  
This area of the USDA website provides information about food recalls, simple steps for foods safety, and how to safely prepare many food items.
4. [www.youtube.com/user/USDAFoodSafety](http://www.youtube.com/user/USDAFoodSafety)  
Scroll through the food safety videos available, including how to prepare and provide safe food, a sign language food safety video, and teaching materials.
5. [fsrio.nal.usda.gov/nal\\_web/fsrio/fseddb/fseddbsearch.php](http://fsrio.nal.usda.gov/nal_web/fsrio/fseddb/fseddbsearch.php)  
USDA's Food Safety Data Base: food safety information can be accessed via the web, or ordered as booklets, workbooks, pamphlets, or posters.

### **Partnership for Food Safety**

[www.fightbac.org/](http://www.fightbac.org/)

You can download food safety posters and materials from this site, as well as view food safety tutorials.

### **National Restaurant Association's ServSafe Certification**

[www.servsafe.com/home](http://www.servsafe.com/home)

ServSafe is one of the food safety certifications that is nationally recognized. There is a charge for the course, which can be taken locally or online.

### **State and Local Resources**

Many states and communities offer food safety information, as well as required food safety courses for food handlers. Here are three examples:

1. [www1.extension.umn.edu/food-safety/](http://www1.extension.umn.edu/food-safety/)  
The University of Minnesota's Extension Services offer online and in class food safety instruction, tips and information, available both in English and Spanish.
2. [www.health.ny.gov/environmental/indoors/food\\_safety/](http://www.health.ny.gov/environmental/indoors/food_safety/)  
The State of New York's Health Department has lots of important food safety information, with some specific for people offering food service in New York.
3. [data.cityofchicago.org/Health-Human-Services/Food-Inspections/4ijn-s7e5](http://data.cityofchicago.org/Health-Human-Services/Food-Inspections/4ijn-s7e5)  
The City of Chicago's Department of Health website offers information specific to food safety requirements in Chicago and even lists food service outlets that have been closed for food safety violations.

# VEGAN IN VOLUME

VEGAN QUANTITY RECIPES FOR EVERY OCCASION

By Chef Nancy Berkoff, R.D.



The Vegetarian Resource Group  
Baltimore, Maryland