

# JAIL BULLETIN

Number 88

July, 1992

## FOOD SERVICE SAFETY - PART III

Many Federal, State and local laws establish minimum requirements for sanitary food service. This Bulletin presents guidelines for insuring proper sanitation techniques in jail food service operations. In addition, the Food Service Code of the Nebraska Department of Agriculture will be followed.

The purpose of this three part series of Jail Bulletins is to highlight the prominent factors affecting sanitation in jail food service. The key factors are:

- o Quality and degree of personnel training;
- o Health and hygiene habits of food service staff;
- o Food preparation practices that prevent bacteriological contamination;
- o Cleanliness and capabilities of equipment; and
- o Maintenance of environmental sanitation standards.

The prevention of cross contamination and the safe cooling and reheating of food products will be covered in this Bulletin. The objective is to provide jail staff involved in food service with a working knowledge of cross contamination prevention techniques and the proper temperatures to attain for refrigerating and reheating previously prepared items.

### Preventing Cross Contamination - Cont.

#### **A. The Transfer of Harmful Bacteria - Cross Contamination**

As discussed in the previous Jail Bulletin, cross contamination occurs when harmful bacteria are transferred from one food to another. Usually the bacteria are transferred by means of utensils, equipment or human hands. If you understand the basic concepts of cross contamination and are alert to the ways harmful bacteria are transferred, you will be able to prevent cross contamination.

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Cross contamination requires two things: the presence of a dangerous level of bacteria on one food product and the means of transporting it to another food product. For example, kitchen staff may be very careful to cook poultry to 165° F internal temperature killing most harmful bacteria present; but, in the process, a utensil used to handle the raw chicken is then used to handle the cooked chicken without first being cleaned and sanitized resulting in cross contamination.

## **B. Ways to Prevent Cross Contamination**

Here are some ways you can make it difficult for cross contamination to happen in your operation.

- o Use separate work areas for separate tasks whenever you can. This will prevent the transfer of harmful organisms that occur when one area is used for multiple tasks, such as preparing meat for cooking and cutting vegetables for salads. Even if separate areas are used, you have to be careful so that hazardous products do not spread to adjacent work stations.
- o In a small facility, it may be difficult to recognize separate work areas. If so, be sure that the utensils and work area are cleaned and sanitized between uses.
- o Keep a set of commonly used tools and utensils near each work station. This makes it unnecessary for an employee to go searching for a utensil in another area - a utensil that may just have been used in preparing a perishable product.
- o Separate employees by work responsibility. For example, one person prepares fresh salad items while another cuts chicken. In small operations, this may not be possible. If it isn't, be sure that the employees understand the importance of handwashing as well as cleaning and sanitizing utensils, equipment and work surfaces.
- o Break the work of preparation into small steps. After each step in the process, employees must clean and sanitize the utensils and work surfaces and wash their hands.

## **Safe Cooling and Reheating**

### **A. Safe Cooling Using an Ice Bath**

Improper cooling has been shown to be the primary cause of food poisoning in food service operations. Improper cooling can happen in several ways. When cooked foods are left at room temperature for several hours before refrigeration, dangerous bacteria multiply. When foods are placed in a refrigerator in large, deep containers, cooling occurs very slowly. Even though the exterior cools in contact with cold air, the part of the product in the center of the container becomes a breeding ground for dangerous bacteria, and remains so for hours. Large bulky foods cool very slowly. In fact, research has demonstrated that the internal temperature of an 8-pound roast placed in a refrigerator took over 5 hours to fall from 135° F to 70° F, and an additional 12 hours to fall below 45° F. As a result, this food product would be in the danger zone for approximately 17 hours. A dangerous amount.

Because improper cooling is the primary cause of food poisoning in food service operations, cooling foods correctly is essential. Placing hot foods in a refrigerator may not cool them quickly enough to prevent the growth of bacteria. In fact, it may permit the food products to be in the danger zone for hours as harmful bacteria

multiply. To prevent contamination and food borne illness, food must be cooled quickly. The quicker the product cools, the less opportunity bacteria will have to multiply.

There are techniques for cooling foods quickly and safely. Many food items, such as sauces, soups, stews and bases can be immersed in an ice bath. Immersing foods in an ice bath will cool them far more quickly than simply refrigerating them. The ice bath technique is very simple and effective if done correctly. The following are the basic steps:

- o Put ice and cold water in a sink;
- o Place the food to be cooled in a shallow container;
- o Place container into the sink until temperature is 40 degrees or lower, then refrigerate; and
- o Use a metal container if possible as it will transfer the heat out of the product faster than a plastic container.

## **B. Safe Cooling - In The Refrigerator**

Sometimes it isn't possible to cool foods in an ice bath. But there are alternative ways of cooling foods safely. Applying these techniques prevents the unnecessary suffering caused by food borne illness. There are safe ways to cool foods in a refrigerator. Using small, flat containers, foods will cool more quickly than when large, deep containers are used because of the larger surface areas. Bulky foods, such as roasts, should be sliced to three inch thickness before refrigerating because thicker pieces stay warm in the center, long enough for dangerous growth of bacteria to occur.

Generally speaking, the ideal container for refrigerated storage is less than six inches deep, with a product depth of no more than four inches. Since the standard counter pan is used in virtually all food service operations, it is an ideal storage container. Plastic "buckets" and deep containers are not recommended for cooling foods because they are typically more than six inches deep.

Some additional steps you can take to prevent the opportunity for food borne illness caused by improper cooling include:

- o Review the menu and food production schedule. Identify times when foods are prepared in advance and refrigerated for later use. Consider the possibility of preparing these items just before service rather than in advance. By reducing the need for cooling and refrigerating foods, you can eliminate some of the opportunities for food borne illness.
- o Careful estimations, the use of standard recipes, batch cookery and portion control will help eliminate leftovers. The fewer leftovers that need to be cooled and refrigerated, the less opportunity there will be for food poisoning.
- o Foods should not be allowed to stand anywhere at room temperature. Refrigerate foods as soon as the service period is over. Food will cool far more rapidly in a shallow pan than in a stock pot. An ideal storage container is a standard counter pan, 12 by 20 by 2-1/2 inches deep. Provide plenty of shallow containers for cooling and storing foods.

### **C. Reheating Foods For Safe Service**

Safe cooling of foods is essential. But there is an extra measure of protection that food service employees can use. Reheating previously cooked foods to 165 °F kills most harmful bacteria. It is a technique that brings an extra measure of safety to the food production process. If food is not cooled quickly, it may be in the danger zone long enough for dangerous bacteria to multiply. Reheating the food to 165 °F will kill most harmful bacteria. It is important to note that not all leftover food will be reheated before reserving, so it is critical that those foods are properly cooled.

For foods that will be reheated before being served, the reheating process of at least 165° F is the last line of defense against food poisoning caused by improper cooling of food products. If dangerous bacteria multiplied during the cooling process, the 165° F will kill them.

In summary, it is essential to properly cool and reheat food to the appropriate temperatures. If employed correctly, the techniques recommended in this Bulletin will be adequate to prevent the occurrence of food borne illness.

**This issue of the Jail Bulletin was prepared by  
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**The material was adapted from:**

**Food Safety is No Mystery  
United States Department of Agriculture  
Food Service Code  
Nebraska Department of Agriculture  
Food Service Sanitation Manual**

# QUIZ

Nebraska Jail Standards require that jail staff receive eighteen (18) hours of in-service training each year. The Jail Bulletin may be used to supplement in-service training if an officer studies the Bulletin, completes the quiz and this process is documented by the jail administrator for review during jail inspections.

## SUBJECT: FOOD SERVICE SAFETY - PART III

JULY, 1992

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NAME \_\_\_\_\_

DATE \_\_\_\_\_

1. Ways to prevent cross contamination include:
  - A. Cleaning and sanitizing utensils between uses.
  - B. Using separate work stations during food production periods.
  - C. Keeping a set of commonly used tools and utensils near each work station.
  - D. All of the above.
  
2. Washing hands properly and sanitizing utensils and work surfaces are good methods to prevent cross contamination in smaller jail facility kitchens.  
TRUE \_\_\_\_\_ FALSE \_\_\_\_\_
  
3. Which method of cooling food is the quickest and safest.
  - A. Setting food in a metal container at room temperature.
  - B. Placing food in a refrigerator after service.
  - C. Placing food in a proper container and placing in an ice bath.
  - D. Placing food in bulk form into a refrigerator.
  
4. Placing hot food products into a refrigerator will allow the foods internal temperature to drop quickly.  
TRUE \_\_\_\_\_ FALSE \_\_\_\_\_
  
5. The primary cause of food poisoning in food service operations is:
  - A. Serving leftovers.
  - B. Preparing too much food at one time.
  - C. Improper cooling.
  - D. Thawing food at room temperature.
  
6. Using small, flat, metal counter pans for food storage containers, allows for the cooling of food in refrigerators.  
TRUE \_\_\_\_\_ FALSE \_\_\_\_\_
  
7. To kill bacteria which may be present in previously cooked foods, you need to reheat food to what temperature.
  - A. 170° F
  - B. 40° F to 140° F
  - C. 135° F
  - D. 165° F

**CREDIT:** One-half hour credit for Jail In-service Training Requirement.

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