

JAIL BULLETIN

Number 87

June, 1992

FOOD SERVICE SAFETY - PART II

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 safe preparation of food and identifying cross contamination will be covered in this Bulletin. It is intended to provide jail staff with a working knowledge of time and temperature in safe food preparation. The key learning concept presented here will be acknowledging the "danger zone" (40^oF to 140^oF), the range of temperatures in which dangerous bacteria multiply rapidly. Although the concept of "danger zone" is very familiar to people experienced in institutional food service, it may not be understood by persons with little or no formal training or experience. This concept deserves continued emphasis in the food service operation -particularly as new employees are hired, assigned and trained.

Safe Food Preparation

A. Safe Thawing

When a perishable food product is thawed and its temperature rises into the danger zone, dangerous bacteria will multiply rapidly. Thawing under refrigeration takes time, but it is the safest approach. When the time available for thawing is short, foods can be safely thawed in a water bath under running water of 70^oF or below.

The Jail Bulletin is a monthly feature of the Crime Commission Update. The Bulletin may be reproduced and used to supplement your jail staff in-service training program. The contents of the Jail Bulletin represent the views of the author(s) and do not necessarily reflect official views or policies of the Nebraska Crime Commission or the Nebraska Jail Standards Board.

Thawing meats and poultry in a refrigerator (40° F or below) prevents the product temperature from reaching the danger zone. Thawing meat or poultry on the counter at room temperature is a dangerous and unacceptable practice because the temperature of the outside parts of the product rises rapidly in the warm air while the core of the product thaws slowly. Under these conditions, harmful bacteria grow quickly on the outside of the product.

If meat or poultry must be thawed rapidly, it should be sealed in a water tight plastic bag in a sink under constantly running water of 70° F or below. The bag of meat or poultry can also be placed in a sink filled with cold water. The water should be drained and the sink refilled every 20-30 minutes.

B. Refrigerated Storage and the Danger Zone

Harmful bacteria multiply very rapidly when a food product is exposed to temperatures between 40° F and 140° F. This range of temperatures is called the “Danger Zone” because the rapid growth of dangerous bacteria increases the possibility of food borne illness. When perishable foods are refrigerated below 40° F, most harmful bacteria will be in a dormant stage. Similarly, cooking perishable foods to temperatures above 140° F or higher kills most bacteria. This is why it is necessary to maintain thermometers in the refrigerator and freezer; and to use a dial-probe thermometer to check foods’ temperatures as they are cooked.

When preparing and serving perishable foods, the temperature unavoidably crosses into the danger zone. To prevent food poisoning, food should be in the danger zone no longer than absolutely necessary.

- o It is important to maintain temperatures of 40° F or below for refrigerated food products.
- o It is important to cook potentially hazardous food products to a minimum temperature of at least 140° F.
- o Pork and any food containing pork must be cooked to heat all parts of the food to at least 150° F.
- o Potentially hazardous foods that have been cooked and then refrigerated, must be reheated rapidly to 165° F or higher.

C. Cooking and Holding Temperatures and The Danger Zone

Using a thermometer to make sure that food has been fully cooked is important both for quality and food safety. The same is true for service. People like to be served hot foods, not lukewarm foods. Monitoring the temperature of food between the time it is cooked and served ensures both food safety and food quality.

There are harmful bacteria and micro-organisms everywhere in the kitchen, particularly in the food itself. Most harmful bacteria cannot survive temperatures above 140° F for very long. Heating foods to at least this temperature kills the bacteria and prevents food poisoning. The cooked food must be held above 140° F. If it cools and the temperature falls into the danger zone, the growth of dangerous bacteria will resume.

- o Food service staff should continually monitor and measure internal product temperatures of foods during preparation and service.
- o Staff must minimize the time a food product is in the danger zone.
- o Danger zone time occurs after a food product is removed from the refrigerator, but before cooking and after cooking but before service.
- o Ways to reduce danger zone times include: short preparation time; cooking food closer to the time of service and speeding up the serving process.

Preventing Cross Contamination

Cross contamination is the transfer of harmful organisms from one food to another. The harmful organisms can be carried by utensils, human hands or cutting boards. Cross contamination is possible wherever tools, equipment or people take part in more than one task--in short, almost everywhere in a food service operation.

A. Identifying Cross Contamination

Contamination of one food with harmful bacteria from another food product is a significant cause of food borne illness. Preventing cross contamination involves employee awareness of its causes and care in the use of utensils, cutting boards and various food contact surfaces.

Human hands, utensils and equipment, if not properly washed and sanitized, are among the sources of transferring harmful bacteria from one food to another, causing cross contamination and possibly food borne illnesses.

Careful cleaning and sanitizing of utensils and equipment and hand washing will help prevent the spread of dangerous bacteria and other microorganisms. Proper food storage techniques and the separation of work areas also prevent cross contamination.

Some examples of cross contamination are:

- o Storing meat above another food while thawing. Juice dripping from the meat, containing bacteria, will contaminate the other food.
- o Using utensils such as tongs to handle raw chicken and later using the tongs to handle another food product, without proper cleaning in between.
- o Food service worker handling a cooked meat product after handling a raw meat product, with no hand washing in between.
- o Handling raw and cooked products in the same work station, without proper cleaning in between.

*This issue of the Jail Bulletin was prepared by
Daniel Evans, Criminal Justice Field Representative,
Jail Standards Division.*

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 II

JUNE, 1992

NUMBER 87

NAME _____

DATE _____

1. The "Danger Zone" includes a range of temperatures which are?
 - a. 60° F to 160° F
 - b. 66° F to 86° F
 - c. 40° F to 140° F
 - d. 32° F to 165° F

2. The longer food is in the danger zone, the more harmful bacteria will grow.
_____ TRUE _____ FALSE

3. Which method of thawing is fastest?
 - a. Thawing in the sink under cold running water
 - b. Thawing in the refrigerator
 - c. Thawing in a water bath

4. A thermometer placed in the refrigerator will aid staff in:
 - a. Deciding how many food items can be safely stored in the refrigerator.
 - b. Determining the energy efficiency and cooling capacity of the refrigerator.
 - c. Monitoring the temperature to insure that food is stored under 40° F.
 - d. Determining how long it will take for heated food to be cooled.

5. Cooking food to at least 140° F will ensure that most harmful bacteria is killed.
_____ TRUE _____ FALSE

6. Food service staff do not need to monitor the cooking temperature of food since it will be served within minutes after cooking.
_____ TRUE _____ FALSE

7. Cross contamination of food products can occur in which of the following cases:
 - a. When a worker handles raw pork chops and chops cabbage on the same counter top.
 - b. When thawing meat directly above another container of food.
 - c. When utensils are not sanitized between each use.
 - d. When hands are not properly washed while preparing various food products.
 - e. All of the above.

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

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 II

JUNE, 1992

NUMBER 87

NAME _____

DATE _____

1. The "Danger Zone" includes a range of temperatures which are?
 - a. 60° F to 160° F
 - b. 66° F to 86° F
 - c. 40° F to 140° F
 - d. 32° F to 165° F

2. The longer food is in the danger zone, the more harmful bacteria will grow.

TRUE _____ FALSE

3. Which method of thawing is fastest?
 - a. Thawing in the sink under cold running water
 - b. Thawing in the refrigerator
 - c. Thawing in a water bath

4. A thermometer placed in the refrigerator will aid staff in:
 - a. Deciding how many food items can be safely stored in the refrigerator.
 - b. Determining the energy efficiency and cooling capacity of the refrigerator.
 - c. Monitoring the temperature to insure that food is stored under 40° F.
 - d. Determining how long it will take for heated food to be cooled.

5. Cooking food to at least 140° F will ensure that most harmful bacteria is killed.

TRUE _____ FALSE

6. Food service staff do not need to monitor the cooking temperature of food since it will be served within minutes after cooking.

_____ TRUE FALSE

7. Cross contamination of food products can occur in which of the following cases:
 - a. When a worker handles raw pork chops and chops cabbage on the same counter top.
 - b. When thawing meat directly above another container of food.
 - c. When utensils are not sanitized between each use.
 - d. When hands are not properly washed while preparing various food products.
 - e. All of the above.

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