

**News from the Iowa State University Food Safety Project**  
**This is the third issue of the SafeFood<sup>©</sup> Times.**  
**Please share this newsletter with your employees and post in a visible location.**

## Cross Out Cross Contamination!

### What is cross contamination?

Cross contamination is the transfer of harmful bacteria and viruses from one contaminated surface to another surface.

Eliminating cross contamination is a key factor in preventing foodborne illness. By addressing cross contamination issues, foodservice employees can improve the safety of food served to their customers.

### Types of cross contamination

There are four types of cross contamination:

#### 1) Food to food

Food can become contaminated by bacteria from other foods. This type of cross-contamination occurs when raw foods come into contact with cooked foods. Some examples of food-to-food cross contamination are:

- Drippings from raw meat stored on a top shelf of refrigerator onto cooked vegetables placed on lower shelf.
- Mixing fresh food with leftover food, such as salads.

#### 2) Hand to food

People are a primary source of cross contamination. Some examples are:

- Unwashed hands or poorly washed hands.
- Handling foods after using the restroom without thoroughly washing hands.
- Using an apron to wipe hands between handling different foods, or after washing hands.

#### 3) Equipment/food contact surface to food

Contamination can be passed from kitchen equipment, utensils, or food contact surfaces to food. Some examples are:

- Using unclean equipment, such as slicers, can openers, and utensils, to prepare food.
- Using a cutting board and the same knife when cutting different types of foods, such as cutting raw chicken followed by salad preparation.
- Preparing food on a counter without cleaning and sanitizing it.

#### 4) Chemicals to food:

If food is stored near chemicals or cleaning supplies contamination can occur. An example:

- Food stored near cleaning supplies.
- Careless use of cleaning chemicals near food.

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#### Articles

- Cross contamination
- Types of cross contamination
- Causes of cross contamination
- Preventing cross contamination
- Linen and other things

#### Questions:

If you have questions contact:

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## Causes of Cross Contamination

A series of research studies in schools, assisted living facilities, restaurants and child care operations, have examined food handling practices over the past six years. The most common identified causes of cross contamination are:

- Packages on counter tops
- Handling refrigerator and freezer handles
- Multiple items prepared on same cutting board
- Hands not washed before donning gloves
- Work surfaces not sanitized
- Handwashing not done between handling dirty and clean dishes
- Sanitizing solution not at correct concentration
- Final rinse temperature not met
- Recontamination by unclean hands or surfaces



Microorganisms found on fingers after handled dirty dishware.

## Linens and Other Things

Cleaning and sanitizing food contact surfaces is an important action step in crossing out cross contamination. Most retail foodservices are mindful of the importance of wiping tables after service or having employees wear aprons.

It is important that tools used in cleaning be clean themselves. Wiping cloths used for cleaning and sanitizing should be used for that purpose only. These should be kept in an appropriate sanitizing solution between use (i.e. chlorine-based sanitizer should be between 50 - 100 ppm). Change these at least every four hours. One commercial chain has a “switch out” of all food contact items every four hours - that includes wiping cloths, utensils, aprons, etc.

## Last Visit Coming Soon!

The food safety project team wants to thank you for your participation in the research project “Mitigating Cross Contamination”.

Most operations have been or soon will be scheduled for the final site visit(s).

Throughout the past three years, your operation has provided useful information to improve the understanding of cross contamination in retail foodservice operations.

Please look for wrap up information from the food safety project in July.

Sincerely,

Janell Meyer, Project Coordinator

## Ways to Prevent Cross Contamination

Some ways to prevent cross contamination are:

- Avoid placing boxes directly on the counter top.
- Sanitize door handles routinely.
- Do handwashing properly and at appropriate times.
- Check chemical concentration of sanitizing solution frequently.
- Keep raw and ready-to-eat or cooked foods separate.
- Chemicals should be stored separately from food and ideally in a locked closet, cabinet, or cage.
- Clean and sanitize cutting boards between uses.
- Clean high risk areas before low risk areas.



Think about food production and how frequently food may come in contact with the apron. Aprons should be taken off when leaving the food production area. Aprons should not be worn into the restroom and hands should not be wiped on aprons. Linens should be designated for use in foodservice only. If your organization has an in-house laundry, keep the foodservice linens separate from those used by custodial or housekeeping staff.

**Think about food production and how frequently food may come in contact with the apron. Aprons should be taken off when leaving the food production area.**

## Web Sites

These are some web sites where you can find more information on cross contamination.

<http://www.foodsafety.gov/~fsg/fsgret.html>, Gateway to Government Food Safety Information

[http://www.fsis.usda.gov/Fact\\_Sheets/Be\\_Smart\\_Keep\\_Foods\\_Apart/index.asp](http://www.fsis.usda.gov/Fact_Sheets/Be_Smart_Keep_Foods_Apart/index.asp), USDA Food Safety and Inspection Service (FSIS)

<http://www.fightbac.org/>, Partnership for Food Safety Education

<http://www.extension.iastate.edu/HRIM/HACCP>, HACCP Information Center, Iowa State University, University Extension