

# FOOD TALK



SANITATION TIPS FOR FOOD WORKERS

SUMMER 2005

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## Why Seafood Needs Careful Handling

Now that summer's here, we need to pay special attention to food temperatures, because many dangerous organisms become more active in warm weather. Take shellfish, for example. One bad bug called *Vibrio parahaemolyticus*—and some of its nasty relatives—has caused an increase of almost 47 percent in foodborne illness cases since 1996, according to the Centers for Disease Control and Prevention. This has happened even though foodborne illnesses from most other organisms have declined.



Improper refrigeration of shellfish can allow *Vibrio* to grow, so proper storage is a key control measure. Infections are usually linked to consumption of raw or undercooked shellfish or fish. Humans get sick when the pathogen gets into their small intestine and produces a toxin. Scientists still don't know exactly what the toxin is.

Although normally associated with warm areas such as the Gulf of Mexico, last summer, cases of *V. parahaemolyticus* infection were linked to oyster farms in Alaska, so the organism's range is expanding. The bacteria need water of at least 62 degrees Fahrenheit. Alaska's water is usually colder than that, but last year it was warmer than normal.

During July-September 1998, an outbreak of *V. parahaemolyticus* was linked to oysters and clams harvested from Long Island Sound. During July-August 1997, the largest reported outbreak in North America occurred. More than 200 individuals became ill from eating raw oysters harvested from California, Oregon, Washington, and British Columbia.

Although most victims of *Vibrio* poisoning recover, those with liver problems or weakened immune systems may die within days. Common symptoms of infection include diarrhea, abdominal cramps, nausea, vomiting, headache, fever and chills.

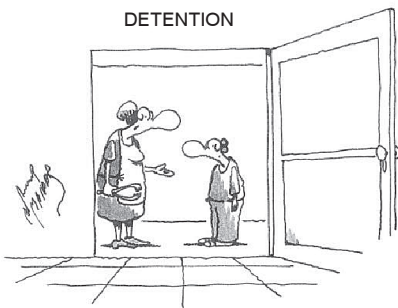
### What You Can Do

You can't always smell, taste, see or feel when shellfish are contaminated. But if it smells bad, tastes bad, or doesn't have proper tags, it should not be allowed in the door of your kitchen. Fresh fish that is not really fresh will have a strong, off-odor. If the eyes look sunken, or the gills are gray or greenish, or if your fingernail indentation remains in the flesh, you might want to throw it back into the truck.

Here are some tips for storing and handling oysters:

- Store the oysters below 40° F to keep bacteria from growing.
- Always wash your hands before and after handling raw seafood.
- Disinfect utensils, plates, cutting boards and other surfaces touched by raw oysters to prevent cross-contamination.

DETENTION



"Talking back to the health inspector. What are you in for?"

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## Salmonella Outbreak Linked to Undercooked Turkey

Undercooked turkey was the most likely cause of an outbreak of *Salmonella Enteritidis* in Camden, South Carolina that began May 20, according to state health officials. Cross-contamination of other foods during cooking or serving was also a possibility, they said.

"It is likely that turkey was the vehicle, with preparation and handling practices possibly contributing to illness," said Dr. Jerry Gibson, the state's epidemiologist and director of the Department of Health and Environmental Control.

By early June, the outbreak had grown to more than 300 cases, with more than 50 individuals hospitalized and one man dead. He became sick after eating a meal at a buffet-style family-owned business in Camden.

The restaurant had a good safety record and had most recently earned an A grade under South Carolina's letter grading system. But health officials believe that some equipment may not have been functioning properly. The restaurant's owners are now getting additional safety training for their employees.

### Best Defense

Health officials stress that the proper cooking and handling of food is the best defense against foodborne illness. Sandra Craig, director of the DHEC Division of Food Protection, said restaurants need to do the following to prevent illness:

- Maintain safe holding temperatures for potentially hazardous foods.
- Maintain proper cooling and reheating of potentially hazardous foods.
- Restrict sick personnel from working.
- Use good hygiene practices, including handwashing.
- Prevent cross contamination of food and equipment.
- Make sure all equipment, utensils and food contact items are washed, rinsed and sanitized.
- Make sure all food is obtained from approved sources.

## Keeping Water Clean

Did you know that foodborne illnesses are sometimes caused by bad plumbing practices? When a health inspector sees a hose of any kind in a restaurant, for example, he is concerned about the risk of "back siphonage."

Back siphonage is caused when a sudden change in pressure sucks wastewater into the potable water system. Here's how it can happen:

A garden hose is attached to a sink faucet to hose down the restaurant kitchen floor. The floor drain is draining slowly, so the worker sticks the hose down the drain to flush it out. He leaves the hose running in the drain and goes off to do some other task.

Meanwhile, down the street, a sanitation worker opens a fire hydrant to fill a 450-gallon tank. This causes the water pressure in the system to drop and sucks water from nearby water pipes. But it also draws water up through the hose in the sewer drain and into the restaurant's potable water system. Water from the kitchen faucet is then contaminated with bacteria and viruses from the wastewater.

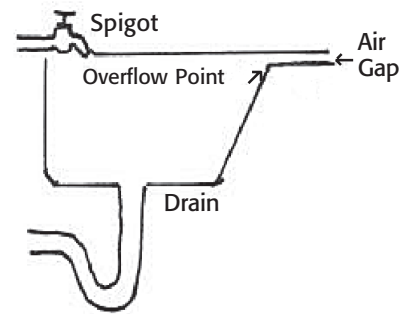
Although this does not happen often, it is frequent enough to cause outbreaks of foodborne illness.

### What to Do

What can you do to prevent it? Always make sure that there is an air gap between the faucet or hose and any contaminated water, so that only air will be drawn into the water system.

Special backflow prevention devices called vacuum breakers can also eliminate the problem.

But an air gap is very effective. Just make sure that there is never less than two inches of space between the spigot and the overflow line of the sink.



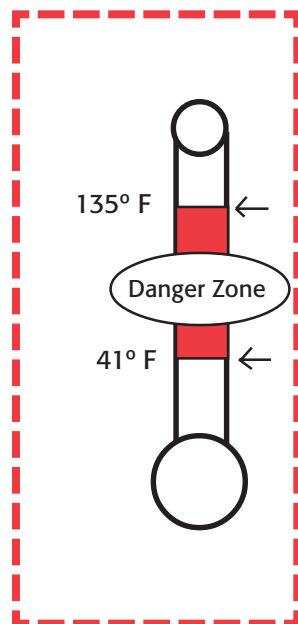
## Keeping Food on Hold

We know that incorrect holding temperatures are a leading cause of pathogen growth on foods. The temperature danger zone that allows bacteria to grow rapidly is between 41 and 135 degrees Fahrenheit, according to guidance from the Food and Drug Administration issued August 29, 2003.

Requirements in your area may vary from the 2001 FDA Food Code. Depending on your health code, the requirements may vary from 40, 41 or 45 degrees F. for keeping cold foods cold to 130, 135 or 140 degrees F. for keeping hot foods hot.

Things to remember when keeping cold foods cold include:

- Keep foods in cold-holding tables, refrigerated display cases, coolers or refrigerators.
- For salad bars and display units, set food containers into ice to keep them cold, without letting the ice spill onto the food. Some foods such as seafood may be allowed to contact ice directly.
- When possible, keep a cover on foods.
- Check the temperature of the foods often, using a clean, calibrated and sanitized thermometer.



Things to remember when keeping hot foods hot are to:

- Transfer hot foods directly to an oven or holding unit.
- Stir foods frequently to distribute the heat.
- When possible, keep a cover on foods.
- Check the temperature of the foods often, using a clean, calibrated and sanitized thermometer.

**Notice:** Food Talk is available in an all-Spanish edition. See [www.foodtalk.com](http://www.foodtalk.com) for details.

### REMEMBER:

Wash  
Your  
Hands  
Often!



## Soap and Water Win Washing Test for Bacteria, Viruses

Researchers in North Carolina have confirmed what sanitarians have always said: It's best to wash your hands—and wash them often—to get rid of germs.

Scientists from the universities of North Carolina and Duke tested various hygiene products in addition to soap and water on 62 healthy adults, who used them on several occasions for 10 seconds after having their hands contaminated with some harmless bacteria and a virus (Note: health officials recommend washing for 20 seconds). They found that water and soap, whether antibacterial or plain, removed 99 percent of the two pathogens.

"All things being equal, we found that soap and water worked best," said lead researcher Emily Sickbert-Bennett, a public health epidemiologist with UNC School of Public Health.

"No other studies have measured the effectiveness of various hand cleaning methods to remove both bacteria and viruses at the same time," she said.

The study found that waterless, alcohol-based hand rubs removed about 90 percent of bacteria if used for 10 seconds, but became less effective after multiple use and did not work very well in removing viruses.

"We were surprised that alcohol rubs were not as effective as we anticipated, especially over time," Sickbert-Bennett said.

"If you have an option, using a sink is always better. And even if you are using an alcohol-based hand rub, it's advisable to go to a sink and periodically wash your hands," she said.

## Take the Manager's Food Safety Quiz

- 1) In order to grow and cause a foodborne illness, bacteria need the following:
  - a. Sunlight, warm air, food and good humidity.
  - b. Food, moisture, proper temperature and enough time to reproduce.
  - c. Cold temperature, sufficient reproduction time, food and moisture.
- 2) When cooked foods are on the steam table at 140°F but are going to be held overnight, the best procedure is to:
  - a. Put foods in shallow containers and immediately refrigerate.
  - b. Take pans of food off the steam table and let cool to room temperature, then refrigerate.
  - c. Leave foods in the large steam table pans and refrigerate immediately.
  - d. Leave foods in the steam table overnight so they will be hot and ready to serve the next day.
  - e. Throw the foods out, since they may spoil and cause foodborne illness.
- 3) Which of the following procedures would most rapidly chill foods?
  - a. Cool to room temperature and then refrigerate immediately.
  - b. Immerse the food container in ice and water.
  - c. Immerse the food container in cold running water.
  - d. Agitate in combination with a) b) or c).
- 4) Food in refrigerators should be covered in order to achieve the following:
  - a. Prolong their shelf life.
  - b. Prevent the transfer of odors from other foods.
  - c. Preserve texture and/or crispness.
  - d. Protect from foods stored above.
- 5) The major hazard associated with overcrowding refrigerators is:
  - a. Difficulty in cleaning, which leads to greater food spoilage.
  - b. Poor air circulation, resulting in higher air temperatures.
  - c. Poor rotation of stock, resulting in spoilage.
  - d. Overwork of the compressor, resulting in the eventual breakdown and complete loss of refrigeration.
- 6) Which of the following is the most important habit for a food worker to develop?
  - a. Avoid smoking or any other use of tobacco while on duty.
  - b. Wear clean clothes and keep hair properly restrained.
  - c. Wash hands frequently.
  - d. Stay home when ill with a cold.

Answers: 1 (b) 2 (a) 3 (d and b combined) 4 (d) 5 (b) 6 (c)

