

# Food Handling Basics

## Food-borne Pathogenic Microorganisms

- Bacteria and viruses cause most food-borne illnesses
- These organisms need food (high in protein), moisture, and temperature (nominally 41<sup>0</sup> F – 135<sup>0</sup> F) to grow and multiply
- Potentially Hazardous Foods (PHF): foods that are moist, have protein, are warm, or have been adulterated (changed).
- Pathogens can live but usually not reproduce on non-hazardous foods such as crackers

## Observe Good Hygienic Practices

- People are the most likely source of pathogens
- Wear clean clothing and hair restraints
- Do not wipe hands on cloth towels or aprons
- Keep fingernails trimmed, neat, and clean
- Keep personal food and drinks covered and in appropriate areas
- Cover open cuts or sores with a finger cot and/or single-use glove

## Proper Glove Use

- Thoroughly wash hands before putting on gloves and in between changing gloves
- Change gloves when changing tasks or if gloves become contaminated (ex: taking money)
- Do not save and reuse disposable gloves—once they have been taken off, discard them and put on a new pair



## Preventing Cross-Contamination

- Use different cutting boards for raw meats, cooked meats, and vegetables
- Separate raw fish, poultry, meats and eggs from ready-to-eat foods
- Store raw meats according to required safe cooking temperatures: Seafood on top, then steaks, pork chops, ground beef, and stuffed meats and poultry on bottom
- All foods should be marked with the date and time made
- Rotate stored food products (swollen and bulged cans should be discarded)
- Keep food stored 6 inches off the floor
- Mop water should be disposed in toilets or utility sinks only
- Lids on dumpsters should remain closed, garbage should be removed regularly, and containers and garbage area maintained clean
- Keep doors and windows screened or closed to prevent rodents and other pests from entering

## Proper Handwashing

- Wet hands with warm water
- Apply soap
- Rub lathered hands and arms vigorously for 20 seconds
- Rinse hands
- Dry hands with a single-use paper towel
- Turn off water with a paper towel
- Wash hands only in the hand sink, and don't use the hand sink for anything else.

## NO Bare Hand Contact with Ready-To-Eat Foods!

### *Use:*

Deli tissue, Single-use gloves, Spatulas, Forks, Dispensing equipment, Tongs

## When to Wash Your Hands

- Using the bathroom – double hand washing is required
- Coughing, sneezing, blowing or touching nose
- Touching head, hair, mouth, cuts, or sores
- Smoking, eating, or drinking
- Touching raw poultry, meats, or fish
- Touching trash, floors, etc.
- Touching dirty dishes, equipment, or utensils
- Touching chemicals, animals, or money



## Cleaning and Sanitizing of Dishes, Utensils, and Kitchen Ware

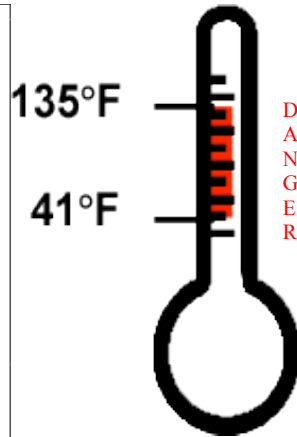
- Clean sink, sanitize if needed
- Proper cleaning and sanitizing procedure:
  1. Scrape off any excess food on item
  2. Wash thoroughly with dish soap
  3. Rinse with clear water
  4. Sanitize in approved sanitizer
    - use test strips to check for proper concentration
    - temperature of 180<sup>0</sup> F needed for heat sanitation
  5. Allow to air dry before putting away

## Cleaning and Sanitizing of Food-Contact Surfaces

- Clean and sanitize food-contact surfaces
- Use proper sanitizer concentrations:
  - 50-100 ppm for chlorine bleach and
  - 200 ppm for quaternary ammonia compounds (do not add soap)
- Use test strips to check for proper sanitizer concentration
- Properly label chemical spray bottles and store away from food products
- Reusable wiping cloths should be kept in a sanitizing solution
- Sanitizing solutions with wiping rags should be changed at least every 4 hours

## Time and Temperature Control for Potentially Hazardous Foods

- Cold-holding at or below 41°F
- Hot-holding at or above 135°F
- Cooking temperatures:*
- Whole muscle meats (beef, pork, fish), eggs for immediate service to 145°F
- Ground beef or pork to 155°F
- Poultry, stuffed meats, stuffed pasta, to 165°F
- Reheat foods to 165°F rapidly then hold at 135<sup>0</sup> F
- Cooked meats that have been left out of temperature control for 4 hours or more should be thrown away



## Proper Thawing

- In refrigerator @ 41°F or less
- Under cold running water @ 70°F or less
- In microwave oven, followed by an immediate cooking process.
- As a part of the cooking process

## Symptoms of Food-borne Illness

- Vomiting
- Diarrhea
- Fever
- Jaundice (Hepatitis A)

### Some illnesses and most likely sources:

- Salmonella – eggs, chicken
- Escherichia coli 0157 H:7 – beef
- Hepatitis A – polluted water, sewage, raw seafood, infected food handlers
- Shigella spp – salads, dairy

-Elderly, young, and those with compromised immune systems are more susceptible

-Report illness to a manager and

**DO NOT HANDLE FOOD** until recovered

- Food handlers are responsible for preventing food-borne illness.

## Cooling

2-stage cooling (total of 6 hours) *time must be documented*  
Stage 1: Cool from 135°F to 70°F or less within 2 hours  
Stage 2: In 4 more hours cool from 70°F to 41°F or less

### RIGHT!

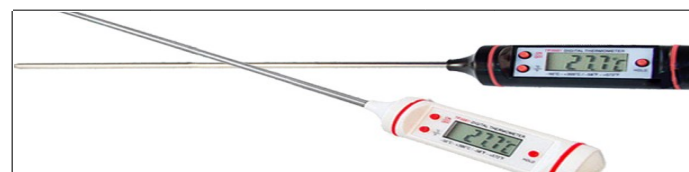
Shallow pans  
Ice bath  
Freezer sticks

### WRONG!

Large containers  
On Counter  
Covering while still hot

## Equipment Needed in Food Service Facilities

- Sanitizer and appropriate test strips to check concentration
- Probe-style thermometer to check food temperatures
- Thermometers in each cooled piece of equipment



## For more information visit:

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