Food Safety Basics

for Occasional Food Service

Colorado State University Extension
Morgan County

Colorado
State
University

Extension

NOTES

Developed July 2002 with assistance from Sherry Jones,
**Nutrition Coordinator, Northeast Colorado Area Agency**
on Aging
Revised June 2008 by Luann Boyer, Extension Agent,
Family and Consumer Education, Colorado State University
Extension, Morgan County

Adapted from:
  Food Safety Works, Colorado State University Extension
  ServSafe Food Handlers Employee Guide, National
    Restaurant Association
  Safe Food Handling, Colorado State University Extension

Serving safe food
starts with

YOU!
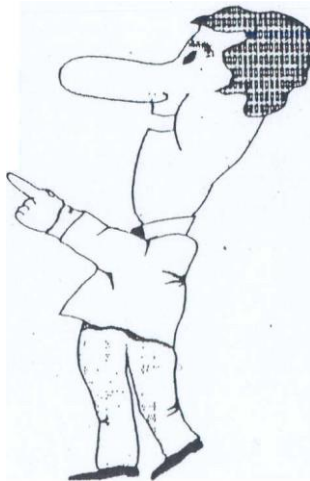
Food Safety
Is Important?

- **It protects you.**
- **It protects customers.**
- **It protects co-workers.**
- **It is good business.**

*Knowing Food Safety
Basics Can Help Prevent
Foodborne Illness!*

How Foods Become **Unsafe**

- Cross Contamination

- Poor Personal Hygiene

- Time/Temperature Abuse

- Improper Cleaning and Sanitizing

Food Handler Rules

- Practice good personal hygiene

- Avoid Cross Contamination

- Learn to use food thermometers

- Know temperatures for handling food at all stages

- Keep hot food HOT (135°F or warmer)

- Keep cold food COLD (41°F or cooler)

- Limit time spent in the temperature danger zone. (41°F to 135°F)

- Properly clean and sanitize to prevent contamination

Cleaning and Sanitizing

Using a Three Compartment Sink

Scrape Wash Rinse Sanitize Air Dry
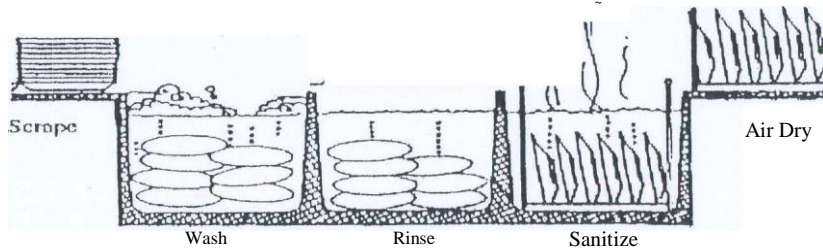
1. **SCRAPE**

   Scrape all food into disposal or trash can.
   If available, use a spray hose to help remove food.

2. **WASH**

   Wash in clean, hot (not less than 110˚F) detergent water until all food is removed from utensils and dishes.

3. **RINSE**

   Rinse in clean water to remove detergent.

4. **SANITIZE**

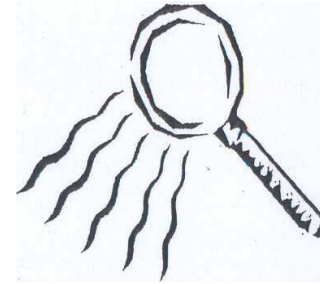   Sanitize in an approved chemical solution. Check amounts, times and temperatures required.

5. **AIR DRY**

   Air dry utensils and dishes before stacking or storing

CROSS CONTAMINATION

*Cross Contamination occurs when pathogens (bacteria, virus, parasites, fungi) are transferred from food, surface, utensils or hands **TO** another food, surface, utensils or hand.*

Preventing Cross Contamination During Storage & Preparation

***Always* keep cooked and ready-to-eat foods separate from raw foods.**

- Wash Hands Often

- Clean and Sanitize Work Surfaces

- Handle dishes and utensils properly

- Thaw and Store all raw meat fish, and poultry items in the refrigerator on a pan or tray below any foods which will not be further cooked and are ready-to-eat..

- Use separate work areas for handling raw meat, fish, or poultry items to keep away from any foods that will not be further cooked before eaten.

Sanitizing

★ **Wash, Rinse** and **Sanitize** any surface that comes in contact with food before and after food preparation.

★ **Wash, Rinse** and **Sanitize** any surface during food preparation when you change from handling one food to another food.

★ Use **1 tablespoon** bleach per gallon of water. **DO NOT** use scented bleach.

★ Use room temperature water **(70˚F)**

★ After washing and rinsing dishes, utensils and equipment, place in sanitizing solution for **1 minute.**

★ Remove from sanitizing solution and air dry in dish racks.

★ Change sanitizing solution at least every **4 hours** to maintain effectiveness.

What to Clean
and Sanitize

♦ **All Dishes and Utensils**
    (knives, plates, pans, etc.)

♦ **All Food Contact Surfaces**
    (meat slicers, cutting boards, prep
    tables, can opener blade, etc.)

♦ **All Non-Food Contact Surfaces**
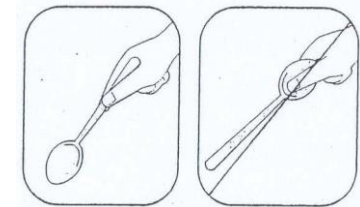   (refrigerators, stoves, ovens, counters,
    shelves, drawers, etc.)
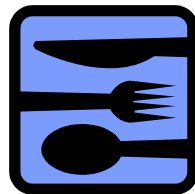
PROPER WAYS TO SERVE FOOD

There's a right way and a wrong way to carry utensils and serve food. Doing it the wrong way can contaminate food and make people sick.
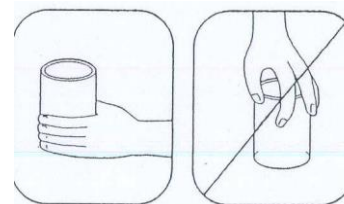
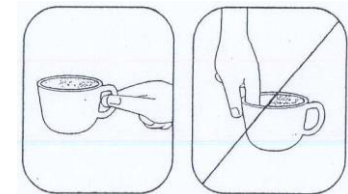Here's the right way and the wrong way to serve.
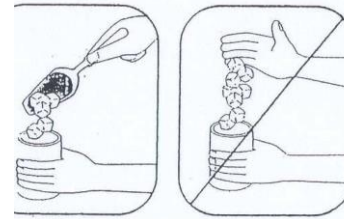
Filling a glass with ice
Use Ice Scoop That Is Stored Outside
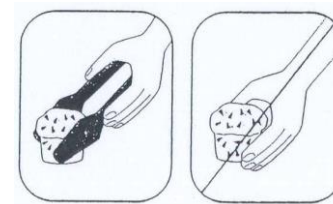Ice Supply Between Uses

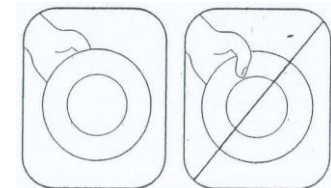Handling utensils
Stored With Handles Up

Carrying a glass
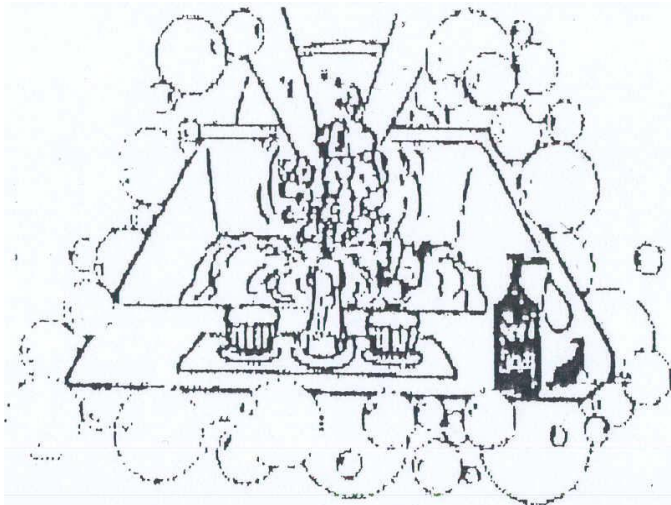Never Carry By Rim

Carrying a cup
Carry by the handle.

Serving a food Item
No Bare Hand Contact With
Ready-To-Eat Foods

Carrying a plate, bowl, food tray
No hand contact with food surface.

Personal Hygiene

Handwashing is the MOST important thing you can do to prevent foodborne illness.
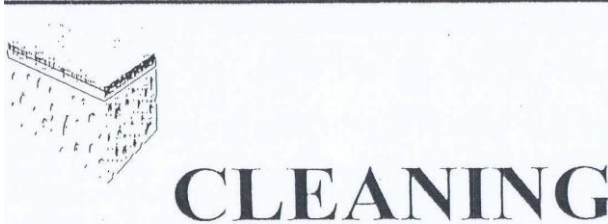
What's the Difference?

- **Wash** with soap and warm water to remove food and other types of soil from surfaces.

- **Sanitize** with an approved chemical solution to kill harmful germs you cannot see.
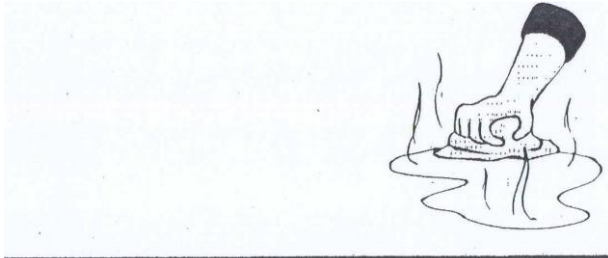
CLEANING VS. SANITIZING

Personal Hygiene

Germs causing foodborne illness are:
- On skin
- In hair
- Under fingernails
- Around jewelry
- On dirty clothes
- Animals
- On things you touch

Germs from ill workers can easily get into food and make others sick.

DO NOT work in food areas if:
- you don't feel well.
- have a fever.
- are coughing or sneezing.
- have diarrhea.

Washing Hands

This is the most important 20 seconds you spend when working around food.

- ✓ Use soap and warm water
- ✓ Rub hands together to make lather
- ✓ Use a scrub brush to clean under and around fingernails
- ✓ Scrub hands for 15 seconds
- ✓ Dry hands with paper towel OR hot air hand dryer
- ✓ Total process takes 20 seconds

DO NOT Use Your Clothes as a Towel.

Hot Temperature Log

4-H Building: _____ Date: _____

Record the Hot Temperature at the indicated time for each of the foods listed.

Foods reheated MUST reach 165 degrees
Hot Hold Temperature for food MUST be 135 degrees or higher

	8 am	9 am	10 am	12 pm	2 pm	4 pm
Chili						
Nacho Cheese						
Hot Dogs						
Hamburger						

Reheating Food

- Reheat to an internal temperature of 165°F within two hours.

- If food has not reached 165°F within two hours, throw it away.

- Use only equipment that has been designed for reheating foods.

- If using a microwave oven, stir food during reheating process, if possible.

NEVER mix fresh food with food being held!

When to Wash Hands

- Before starting work with food
- Each time you change job assignment with food
- After using the restroom
- After any break time from working with food
- After coughing, sneezing, eating or drinking
- Before handling food serving utensils/dishes.
- After touching, handling or doing anything with animals.
- After blowing or touching your nose
- After touching face, hair, mouth, sores
- After touching raw poultry, meat and fish
- Between handling money and any food
- After touching dirty dishes, equipment and utensils
- After touching trash, floors and soiled linens
- After using cleaners or chemicals

Using Gloves Properly

Always wash hands <u>before</u> putting on gloves <u>and</u> when changing to a fresh pair of gloves.

Change Gloves -----

✓ When they become dirty or torn.

✓ Before starting a different task.

✓ After handling any raw meat.

✓ Before handling cooked, or

  ready-to-eat foods

Attend to Accidents by…

… covering cuts, burns or open sores and wearing gloves.

Cooling Foods Safely

Hot Foods MUST be cooled quickly ---
  From 135°F to 70°F in 2 Hours
  From 70°F to 41°F in 4 Hours

If Food is NOT cooled to 70°F in 2 hours, it MUST be reheated to 165°F and start the cooling process again OR the food must be thrown away.

Methods to Cool Food Safely:

1. **Reduce Quantity of Food in Container**
   Divide hot food into shallow containers (no more than 2" deep for thick foods). Refrigerate, leaving container uncovered until cooled to 41°F or lower.

2. **Cool Using an Ice Water Bath**
   Separate food into smaller quantities to cool faster. Put container of hot food into a clean sink or tub filled with ice water (half ice/half water). Stir often until cooled. When cooled to 70°F or lower, put in refrigerator, **<u>uncovered.</u>** When cooled to 41°F or cooler, cover.

Serving Food Safely

Keep food OUT of the temperature danger zone while being held for service.

COLD food holding: 41˚F or below

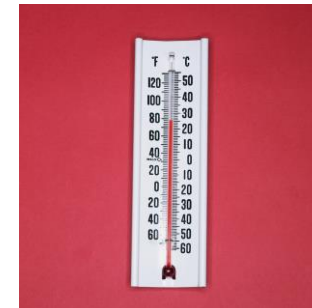**HOT** food holding: 135°F or above

Holding Food for Service

- Stir at regular intervals.
- Keep foods covered.
- Measure temperature at least every 2 hours.
- Discard food after 4 hours if not held at or
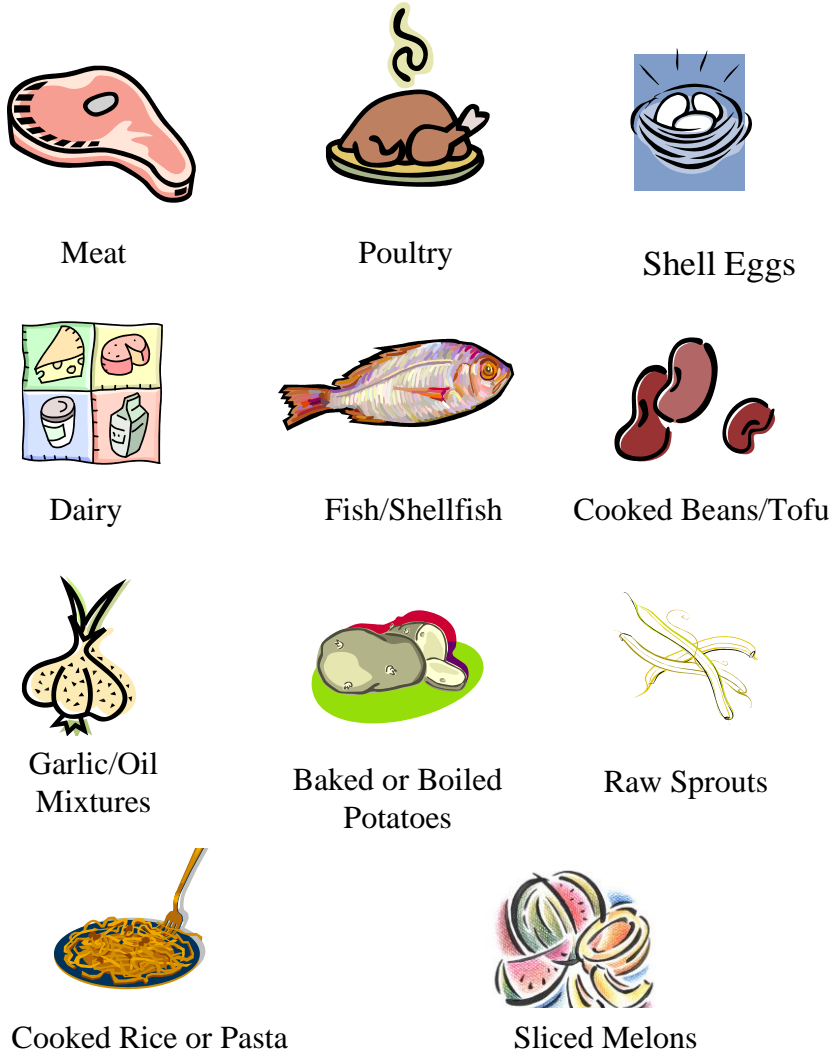
NEVER mix fresh food with food being held!

TIME
AND
TEMPERATURE

Potentially Hazardous Foods

Many foods can support the growth of harmful bacteria, including:

Meat

Poultry

Shell Eggs

Dairy

Fish/Shellfish

Cooked Beans/Tofu

Garlic/Oil Mixtures

Baked or Boiled Potatoes

Raw Sprouts

Cooked Rice or Pasta

Sliced Melons

Minimum Food Temperatures

- All Ground Meat: **155°F Cooking** **135°F Holding**

- Burritos: **165°F Reheating** **135°F Holding**

- Nacho Cheese: **135°F Holding** **165°F Reheating**

- **Weiners: 135°F - package first opened** **165°F - heating from package previously opened**

- **ALL** Leftovers: **165°F Reheating**

- Microwave: **165°F** ALL Foods Cooked or Reheated

- Serving Food **135°F Holding**

Using a Thermometer

◆ Wash, Rinse, Sanitize and Dry the Thermometer Before and After Each use

◆ Check Temperatures a Minimum of Every 2 Hours

◆ If Appropriate, Stir Food Before Inserting Thermometer

◆ Measure Temperature in several areas of the Food

◆ Insert Sensor Part of Stem into Thickest Part of Food

◆ For Thin Meats, Insert Stem Sideways at Least Two Inches into Food

◆ Hold for **15 Seconds** Before Reading Temperature. Record Temperature on Chart.

◆ Keep Probe from Touching the Sides or Bottom of the food container
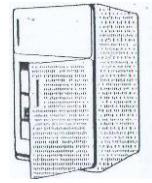
The Temperature "Danger Zone"

*Germs grow fast at temperatures between **41°F** and **135°F***

135°F

DANGER ZONE

41°F
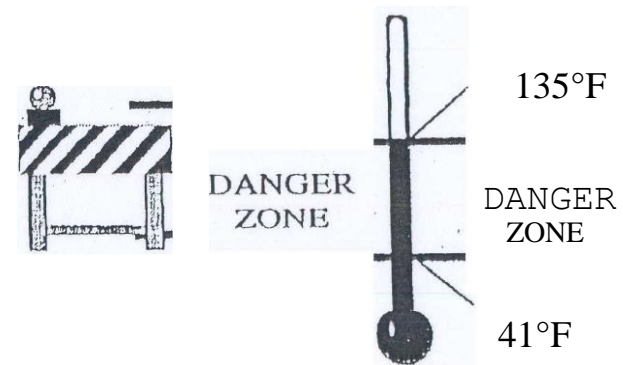
Minimize the time that food is in the danger zone while:

- Preparing
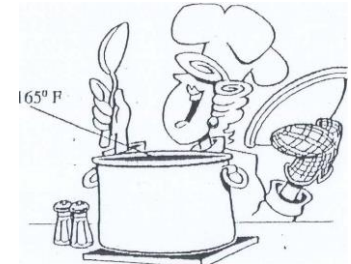- Displaying
- Serving
- Cooling

Thawing Food

The **ONLY** acceptable ways to thaw food:

- Refrigerator at 41°F or lower
    - Place on lowest shelf
    - Place on pan or tray below any ready-to-eat foods

- Under Cool Running Water
    - Water 70°F or colder

- Microwave Oven
    - MUST be cooked *immediately* after thawing.

- Cooking
    - Thaw as part of actual cooking process.

Is It "Done" Yet?

Where is your food thermometer?

Using a food thermometer is the ONLY way to know if the food has reached a temperature high enough to destroy bacteria that can cause foodborne illness.

You cannot tell if food is done just by cooking a certain time.