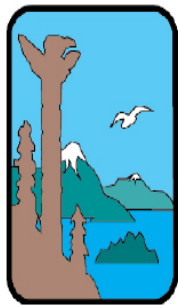
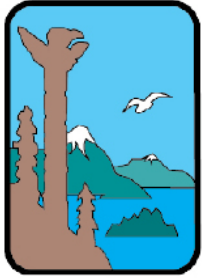


# Food Safety Is In Your Hands



ALASKA  
Department of  
Environmental  
Conservation





ALASKA  
Department of  
Environmental  
Conservation

# **Alaska Safe Food Worker Class**

Food Safety & Sanitation Program

# Consequences

- ~76 million sick
- 5,000 die
- Billions \$ in cost
- Jobs lost
- Restaurants close



# High Risk Populations

- Younger than 5
- Older than 65
- Pregnant
- Immune compromised



1. Food Worker Knowledge & Health
2. Prevent Cross-Contamination
3. The Right Temperatures
4. Safe Food Source
5. Proper Dishwashing





# Part 1: Food Worker Knowledge and Health

- Foodborne Illness
- When You're Sick
- No Bare Hand Contact
- Handwashing
- Utensil Use

# What is Foodborne Illness?

A disease caused by consuming **contaminated** foods or beverages.



# Symptoms

- Diarrhea
- Vomiting
- Fever with Sore Throat
- Jaundice
- Abdominal Cramping





# The “Big” Five

Norovirus

E. coli O157: H7

Shigella

Salmonella Typhi

Hepatitis A



# Handwash Sink Setup

- Hot and cold running water
- Soap
- Dispensed paper towels



# When to Wash Hands

- Before starting work
- Handling raw food
- Smoking, eating, drinking
- Going to the restroom
- Handling garbage
- Coughing or sneezing
- After dirty dishes
- Glove changes





**H**andwashing

**O**ften

**W**ell

**It should seem like  
you are ALWAYS  
washing your hands!**

# Handwashing



## **Steps for Clean Hands**

1. Wet hands
2. Apply soap and lather
3. Rub hands together for 10-15 seconds
4. Rinse thoroughly
5. Dry hands with paper towel
6. Turn off water with paper towel
7. Use the paper towel to open restroom door



# **Hand Health**

**Prevent Dry Skin**

**Hands moisturized**

**Gloves only when  
needed**

# 20 Second Rule





# NOROVIRUS

**10,000,000**

**1,000,000**

**100,000**

**10-100**





Ready to Eat Food





# Utensil Use





- Wash hands first
- Change gloves often
- Don't reuse or wash gloves

**Gloves are no substitute for handwashing!!!**



# Personal Hygiene

**Wash hands often**

**Report illness**

**No Bare hand contact**

**No open cuts**

**Don't smoke, eat, drink  
or chew gum**

**Wear a clean uniform**

**Use hair restraints**

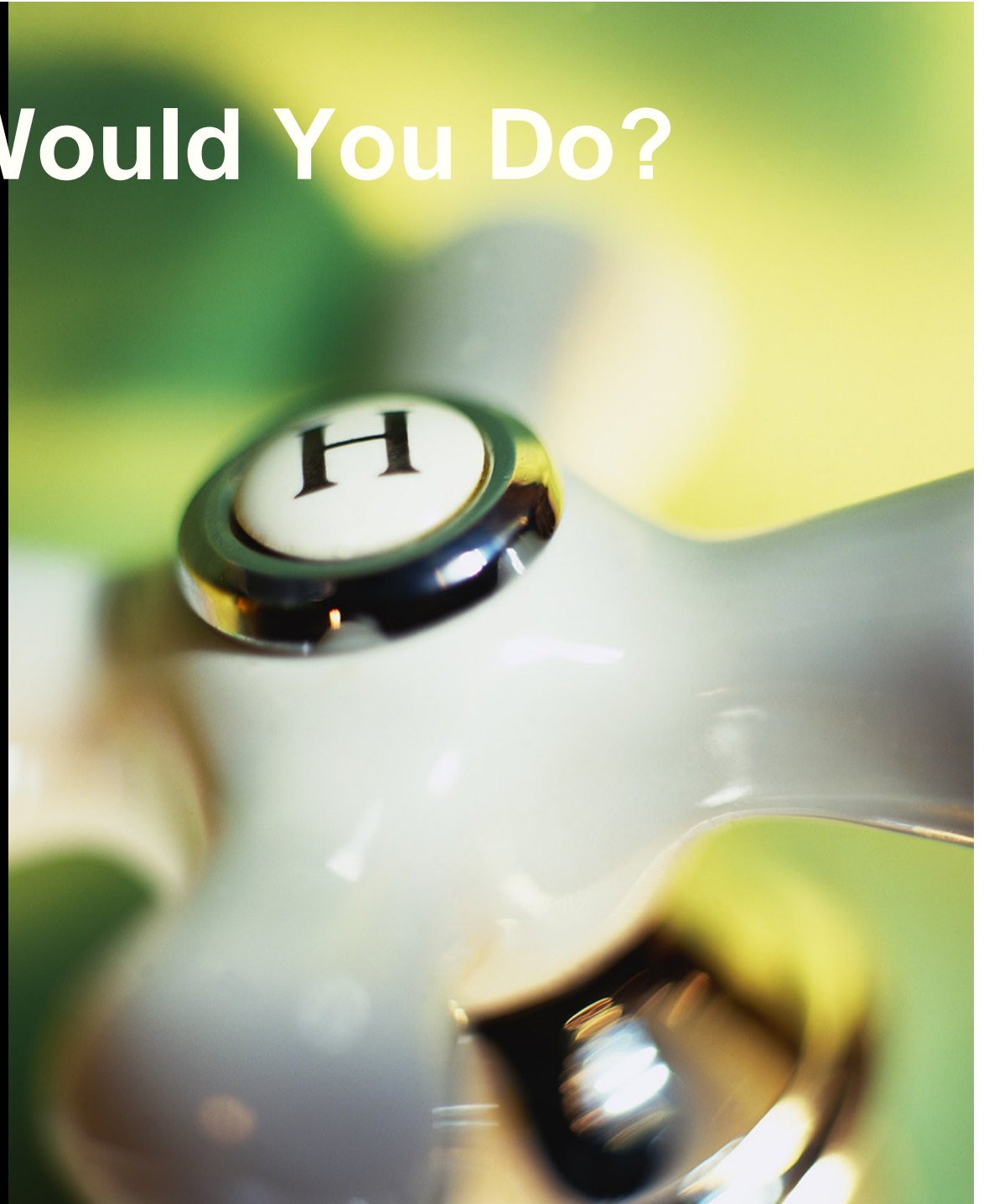
**No jewelry**

**Keep fingernails short**

# What Would You Do?

The Problem:

No hot water  
at the  
handwashing  
sink









## Part 2: Cross-Contamination

- Define Cross Contamination
- Store food safely
- Wash, Rinse, Sanitize
- Safe chemical use

# Prevent Contamination by Hands



# Safe Food Storage

 A collage of three food items: a multi-layered cake with white frosting and red fruit toppings, a head of fresh green lettuce, and a whole orange with several slices cut out.	Ready-to-eat foods Fully cooked foods
 A collage of three raw seafood items: a carton of several white eggs, a pile of cooked shrimp, and a whole silver fish.	Raw seafood Fish, eggs
 A collage of three raw meat items: several slices of raw pork, a piece of raw steak, and several patties of raw ground meat.	Raw steak, raw pork (bacon, pork chops), raw ground meat
 A single raw whole chicken, garnished with green herbs, resting on a dark plate.	Raw poultry, raw ground poultry (chicken, turkey, duck)



# Wash – Rinse – Sanitize Food Contact Surfaces

- Use soap/detergent
- Be sure to rinse
- Mix and use sanitizer correctly and safely



# Safe Chemical Use

- Safe storage
- Safe mixing
- Safe concentrations
- Proper labeling

# What Would You Do?

The Problem:  
The cook puts raw  
hamburger patties on  
the grill and then sets  
up the bun, lettuce,  
onion etc.



# What Would You Do?

**The Problem:  
Bloody raw  
chicken on a  
box of lettuce  
in refrigerator**

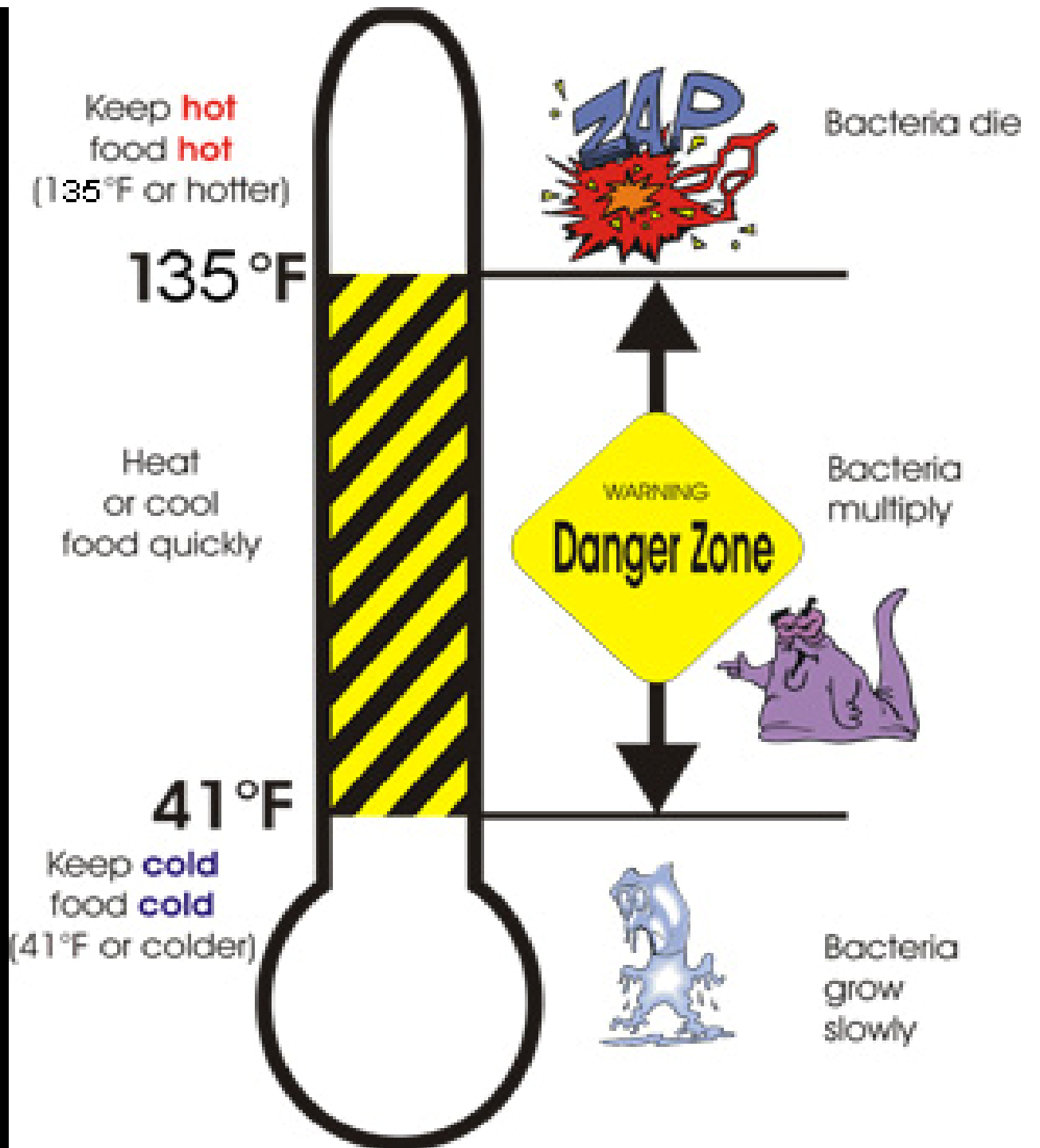


# Part 3: Safe Temperatures

- The Danger Zone
- Potentially Hazardous Food
- Use Your Thermometer
- Safe Temperatures Hot and Cold
- Safe Cooling
- Safe Reheating



# Danger Zone (41°F - 135°F)



# Potentially Hazardous Foods



Rice, cooked  
veggies



Shellfish/Fish



Sprouts, cut  
melons



Meats

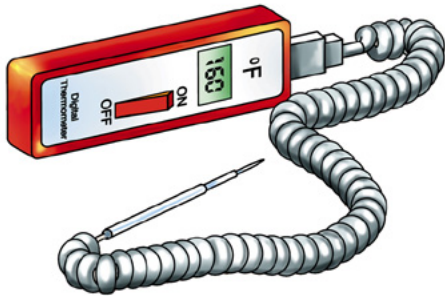


Dairy



Garlic in oil

# Thermometers



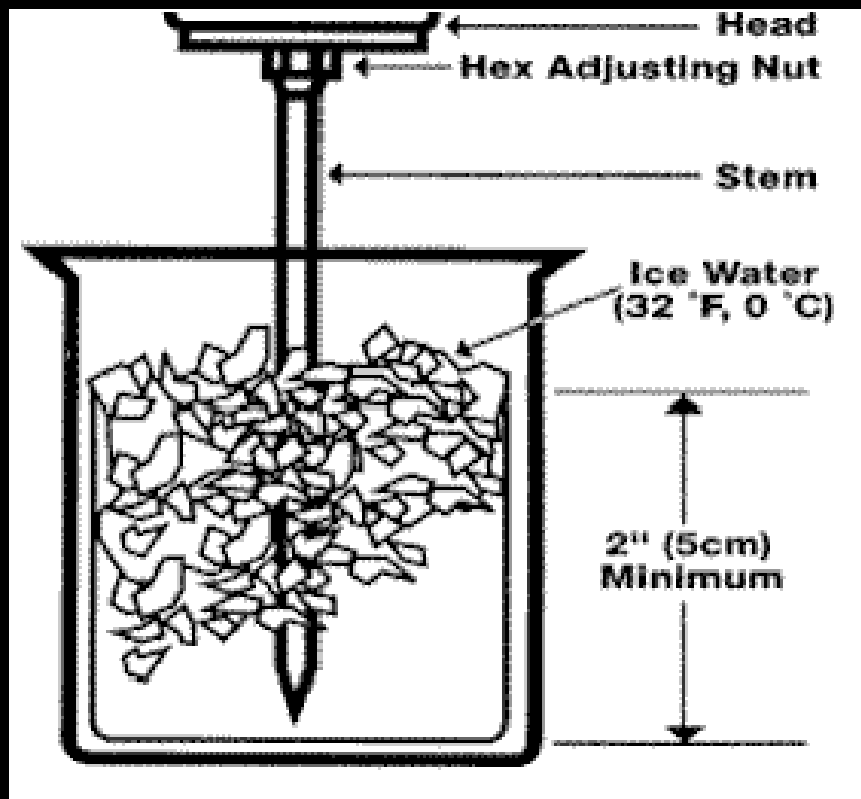
- Calibrate for accuracy
- Wash, rinse, and sanitize
- Check middle / thickest part

**Check the internal temperature of food  
with a calibrated thermometer!**

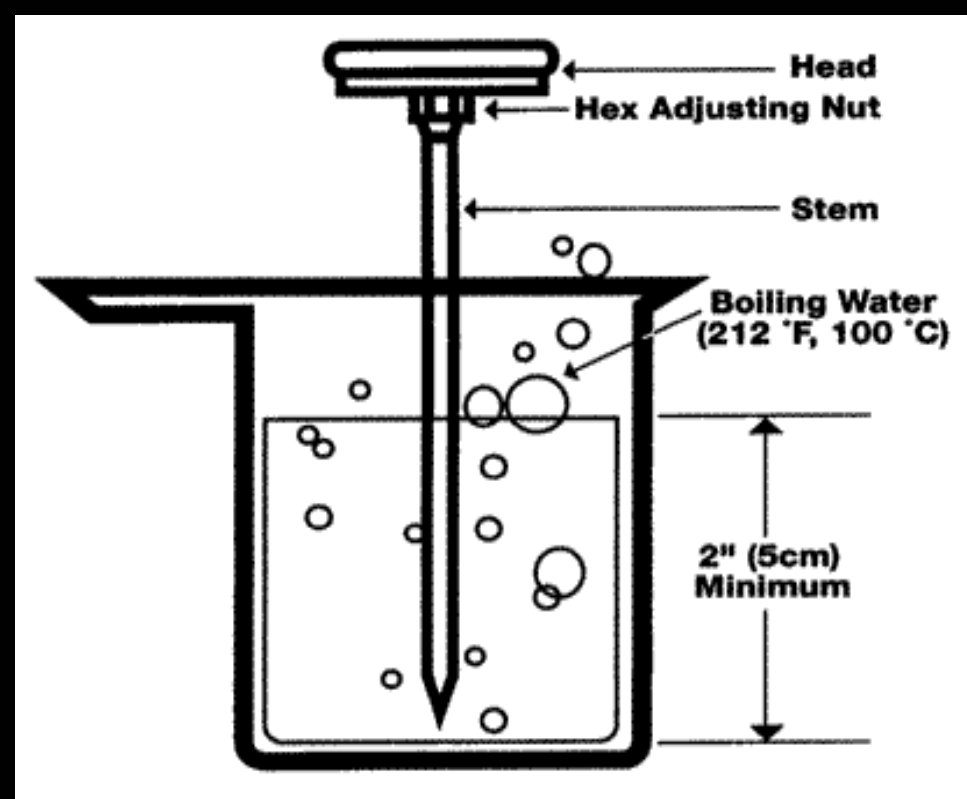


# Calibration

## Ice Point Method



## Boiling Point Method



**Check the internal temperature of food  
with a calibrated thermometer!**

# Safe Cooking Temperatures

Poultry, casseroles, stuffing,  
microwaved animal products  
reheated PHF for hot holding



165°F

Ground meats, hamburger  
sausage



155°F

Fish, shellfish, eggs  
pork



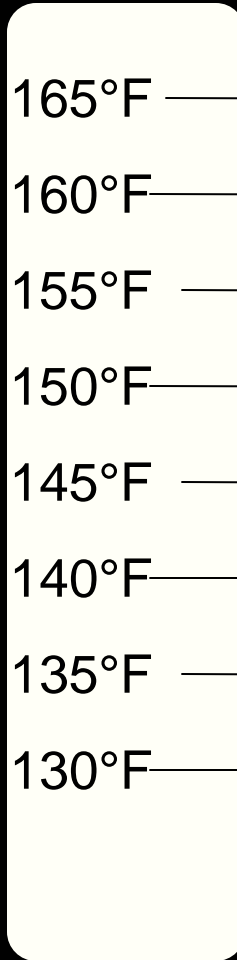
145°F



135°F

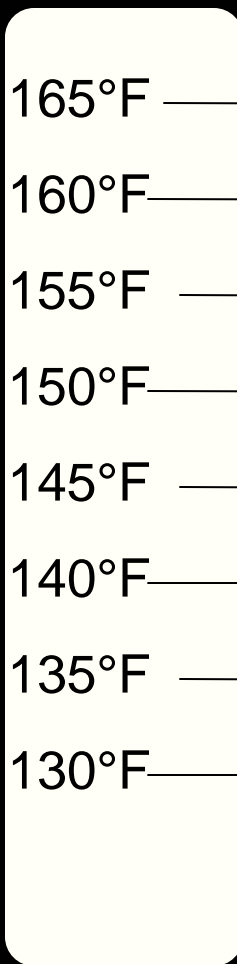
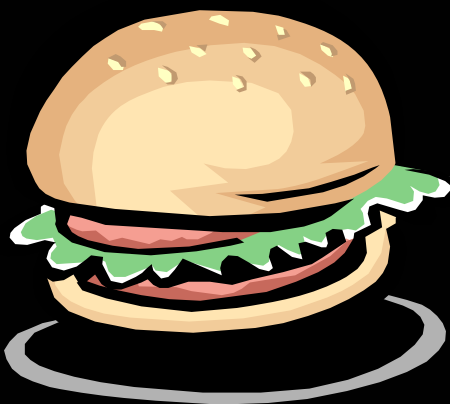
Vegetables for hot holding,  
packaged foods like hot dogs or chili

# Safe Poultry Cooking



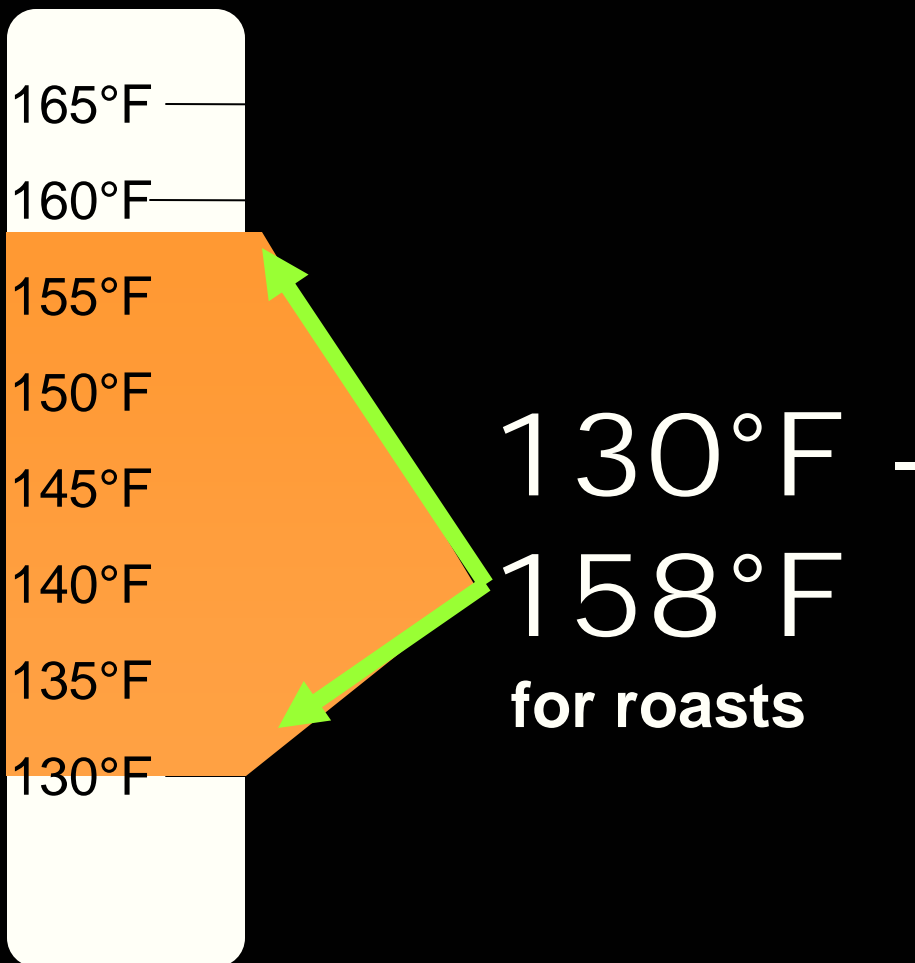
165°F

# Safe Ground Meat Cooking



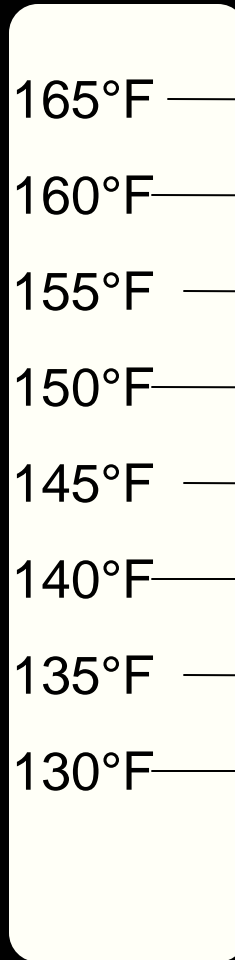
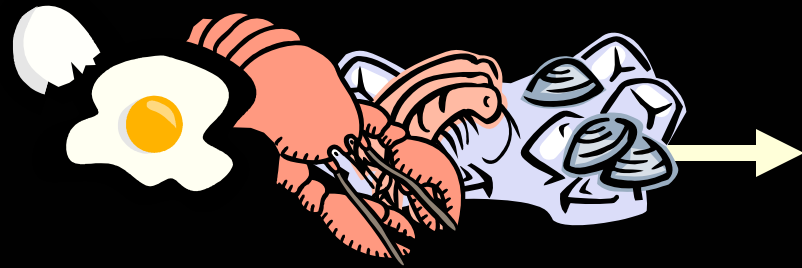
155°F

# Safe Roast Cooking



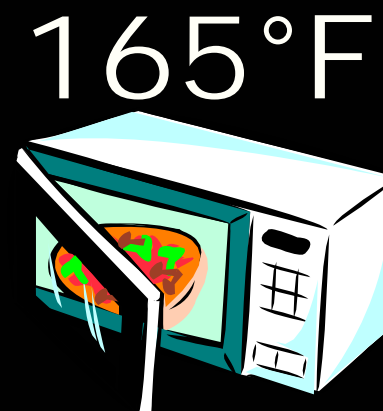
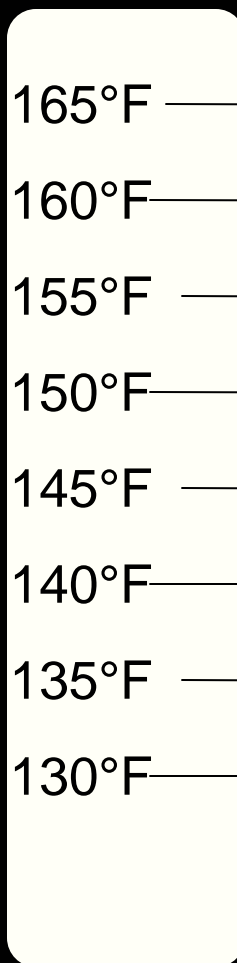
*time-temperature chart*

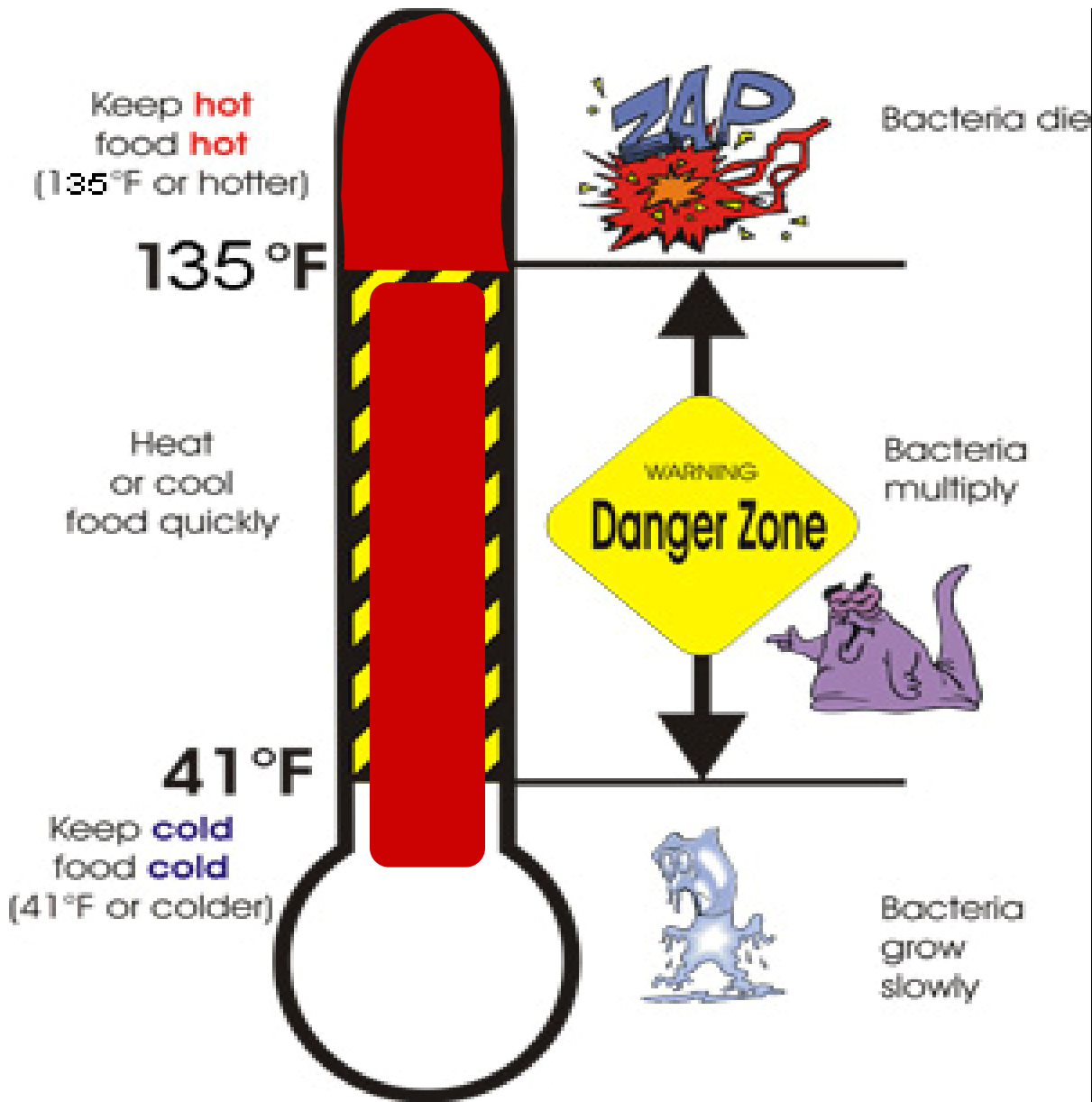
# Safe Cooking Temperatures Seafood, Pork and Eggs



145°F

# Safe Vegetable and Microwave Cooking





Safe  
Hot-Holding

Hot-holding keeps bacteria from growing as rapidly in the food

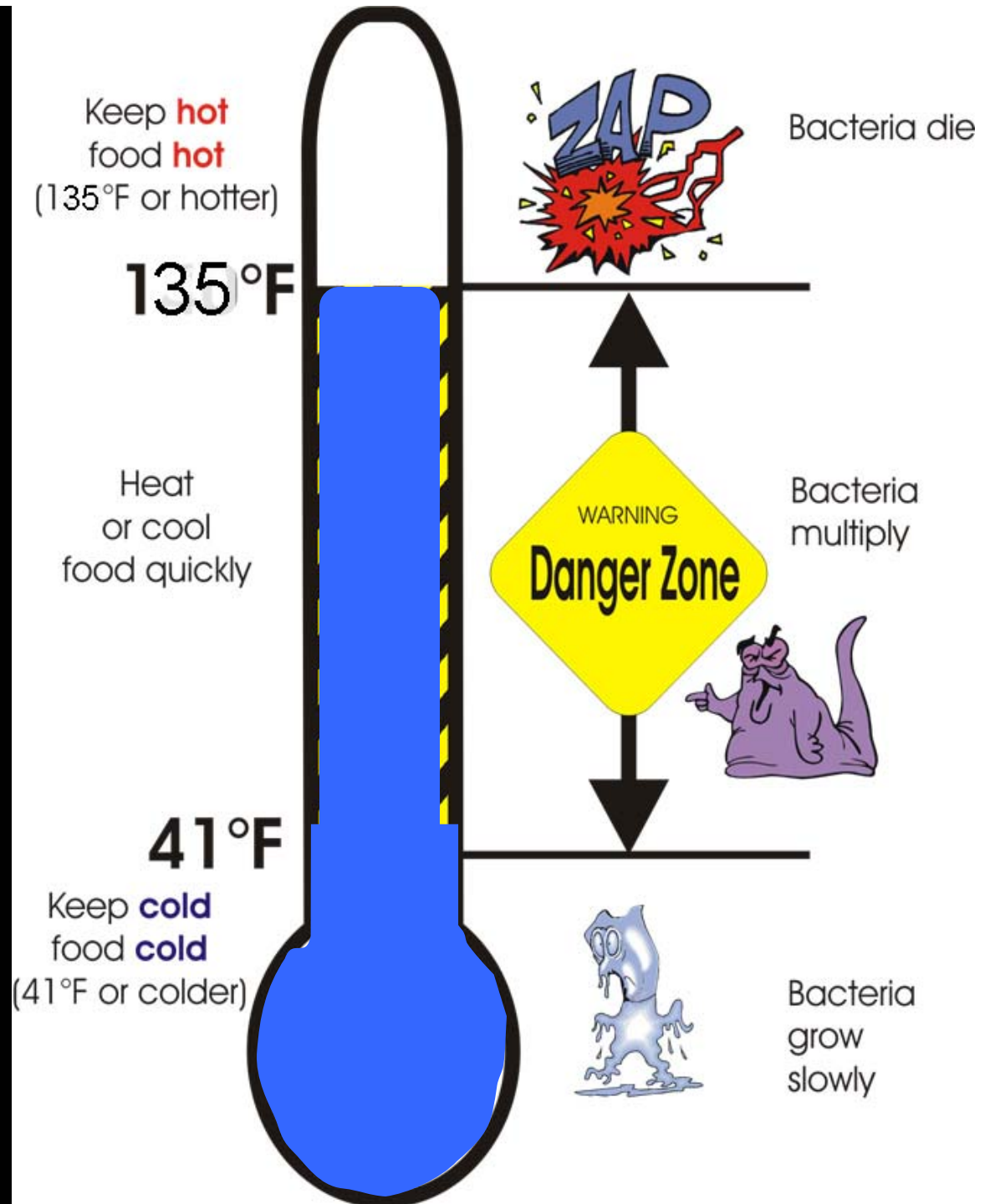


# Hot-Holding

- Keep it **hot**, at least 135°F
- Preheat equipment to 135°F
- Stir frequently
- Check temp every 2 hrs
- 4 hours in the **Danger Zone** means throw the food away!



# Safe Cold-Holding





# Cold-Holding

- Keep it **cold**, 41°F or colder
- Surround containers with ice
- Check the temp every **2 hrs**
- **4 hours** in the **Danger Zone** means throw the food away!

# Cooling Hot Foods

## Step 1

Food must cool from 135°F to 70°F in 2 hours

## Step 2

Food must finish cooling to 41°F within a total of 6 hours

2

4



140°F

130°F

120°F

110°F

100°F

90°F

80°F

70°F

60°F

50°F

41°F

This is not just cooling to 41°F in 6 hours!

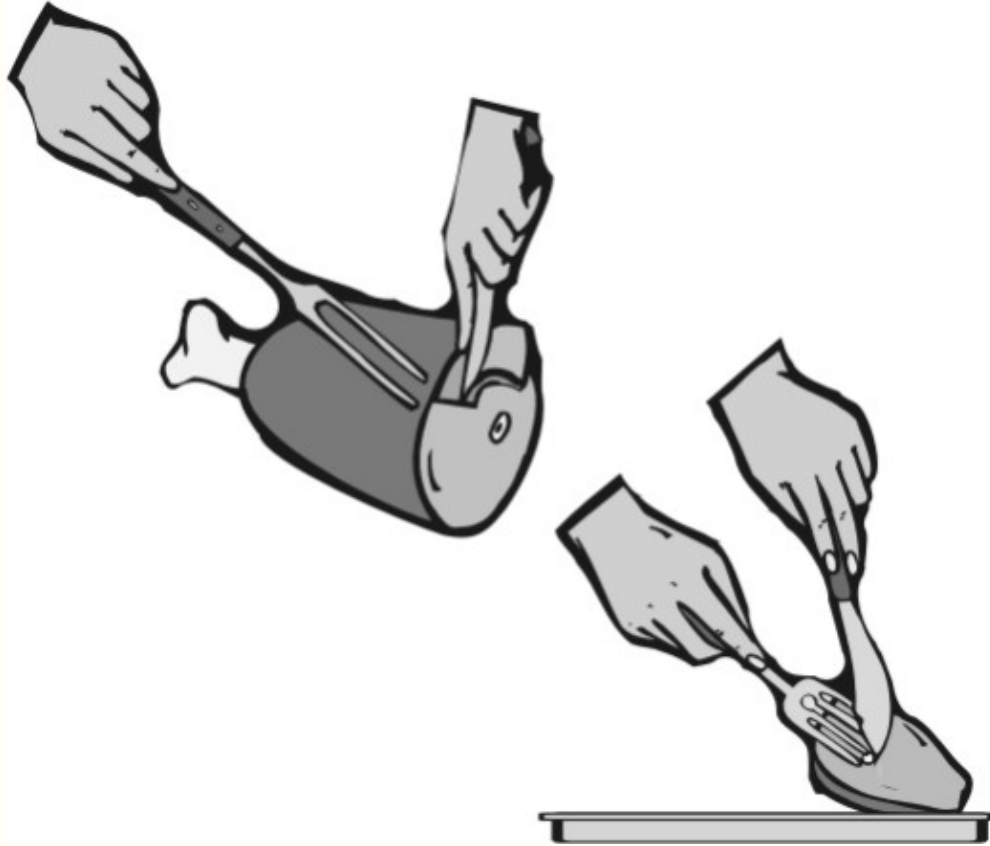
# Ice Bath Method

- Ice / water mixture same level as food
- Stir frequently
- Can use ice wands too





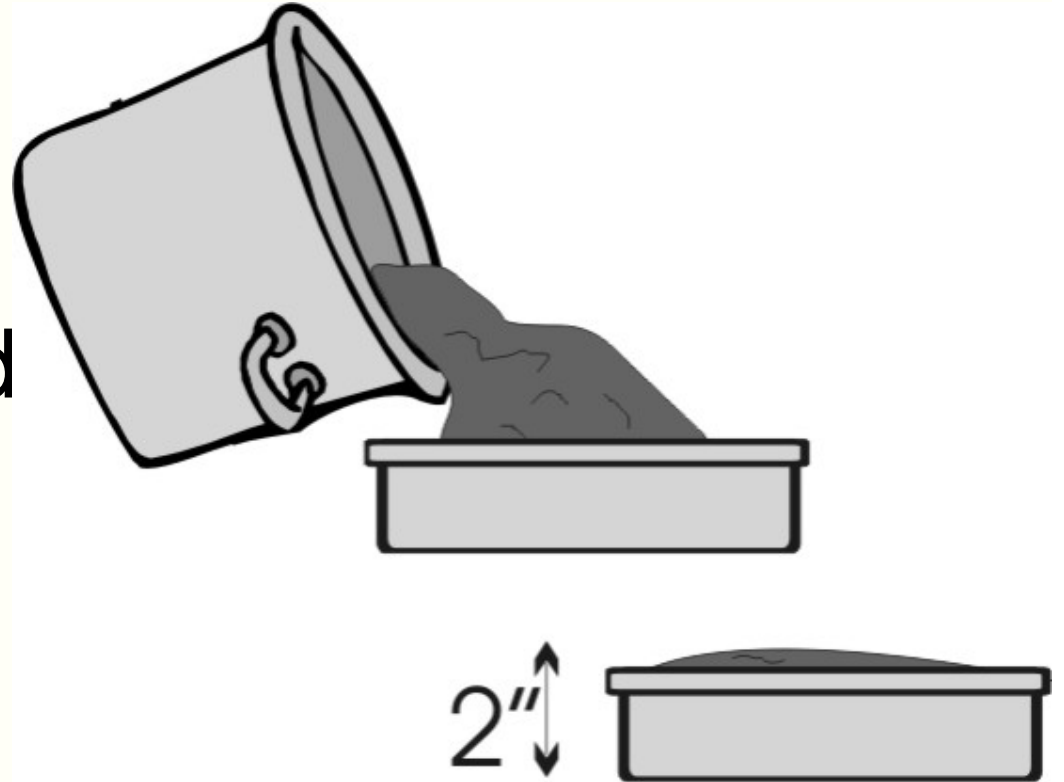
# Smaller Portions



- Smaller pieces
- Thin layers

# Shallow Pan Method

- Smaller pans
- 2-inch depth
- Keep uncovered
- Refrigerate
- Don't stack





# Safe Reheating for Hot Holding

- 165°F within 2 hours.
- Reheat on stove or in oven
- Check with thermometer



165°F



41°F

# Safe Thawing

- Refrigerator
- Under cold running water (70° F or colder)
- As part of cooking process
- Microwave if cooked immediately

# What Would You Do?

## The Problem:

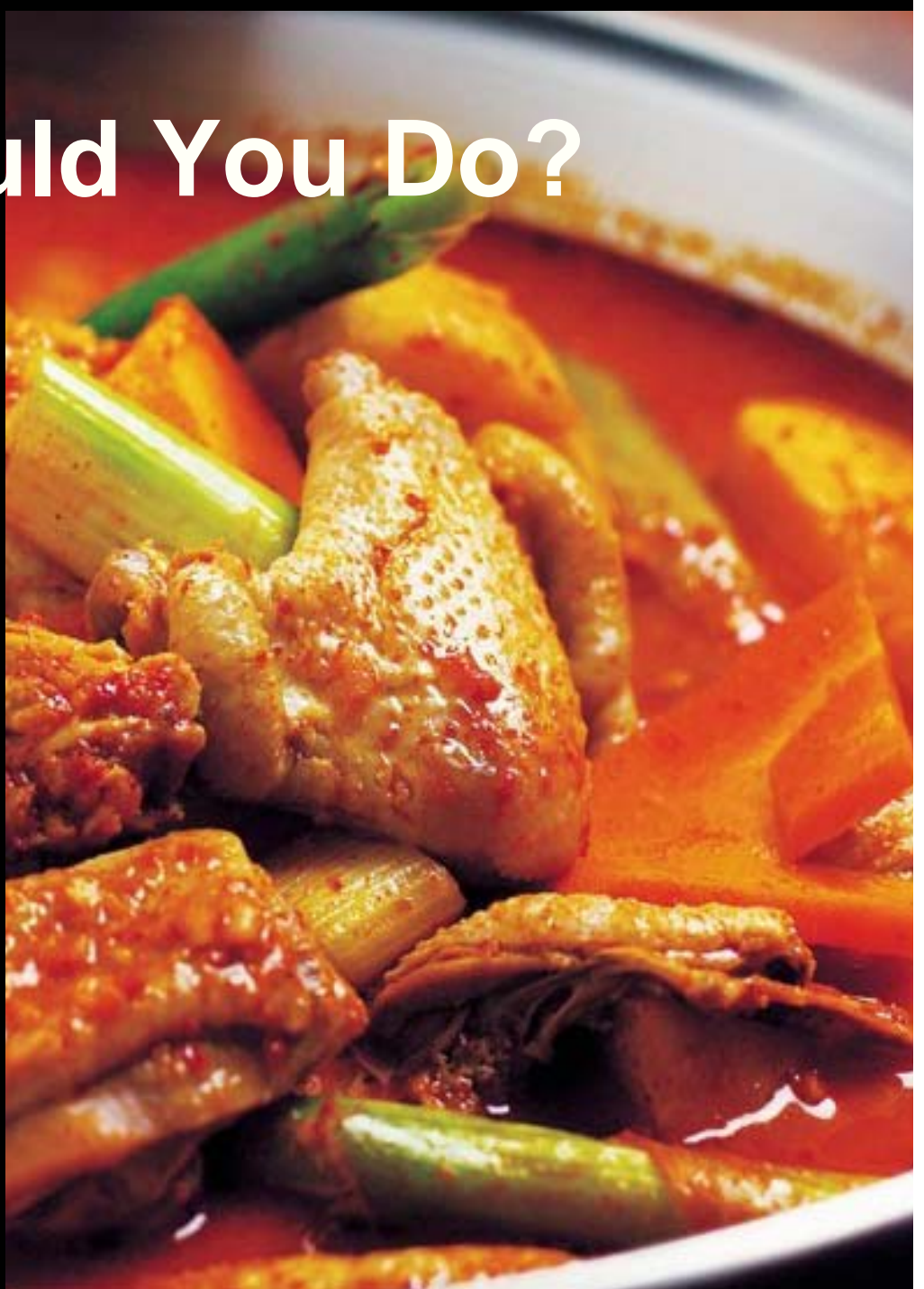
- Ground beef thawing on counter from last night
- Now it is 73° F



# What Would You Do?

## The Problem:

- 10 gal soup in fridge for 1.5 hours
- Now it is 87° F





## **Part 4: Safe Sources**

- **Know your source**
- **Check deliveries**
- **Consumer advisory**

# Approved Sources

Meat and poultry - USDA



Shellstock - ID tag 90 days

<b>KEEP REFRIGERATED</b>	NAME AND ADDRESS:
	HARVESTER PERMIT NO:
	HARVEST DATE: <span style="float: right;">DATE SHIPPED:</span>
	HARVEST AREA:
	TYPE OF SHELLFISH:
	QUANTITY OF SHELLFISH:
<b>THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS.</b>	

All food must come from permitted and inspected facilities!

**No**

- Home canned
- Home jarred
- Wild game
- Sport-caught fish





# Deliveries

- ✓ **Truck condition**
- ✓ **Food temperature**
- ✓ **Approved source**
- ✓ **Food condition**
- ✓ **Receiving area**
- ✓ **Put away quickly**



# Consumer Advisory

- \* Consuming uncooked or undercooked foods of animal origin puts you at significant risk of foodborne illness or disease.*



# Food Allergies

## Symptoms

- tingling sensation
- hives, swelling of mouth and throat
- difficulty breathing
- loss of consciousness



# What Would You Do?

The Problem:

Unlabeled steaks  
delivered



# What Would You Do?

The Problem:  
Grandma  
delivers some  
pies to your  
restaurant





## **Part 5: Proper Dishwashing**

- **Washing dishes properly**
- **Using Sanitizers**
- **Testing Sanitizers**



Dishwashing

Manual

Mechanical

# Sanitizing

**Chemical**  
**Hot Water**



# Chemical Sanitizing

- Chlorine 50-100 ppm
- Quats 150-200 ppm
- Iodine 12.5-25 ppm
- Use test strip





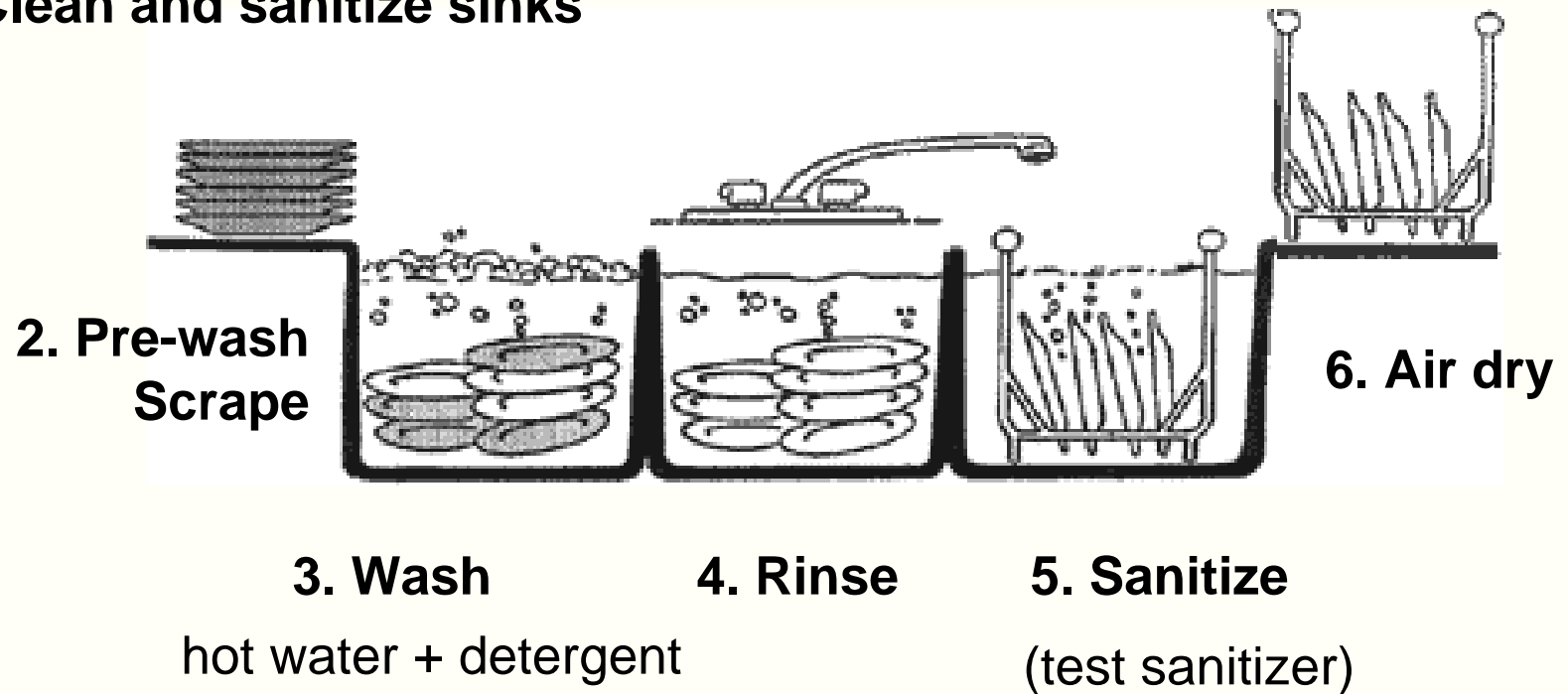
# Use Chemicals Safely

- **Measure according to manufacturer's directions**
- **Use test strips to check the strength**
- **Change the solution often**



# Manual

## 1. Clean and sanitize sinks

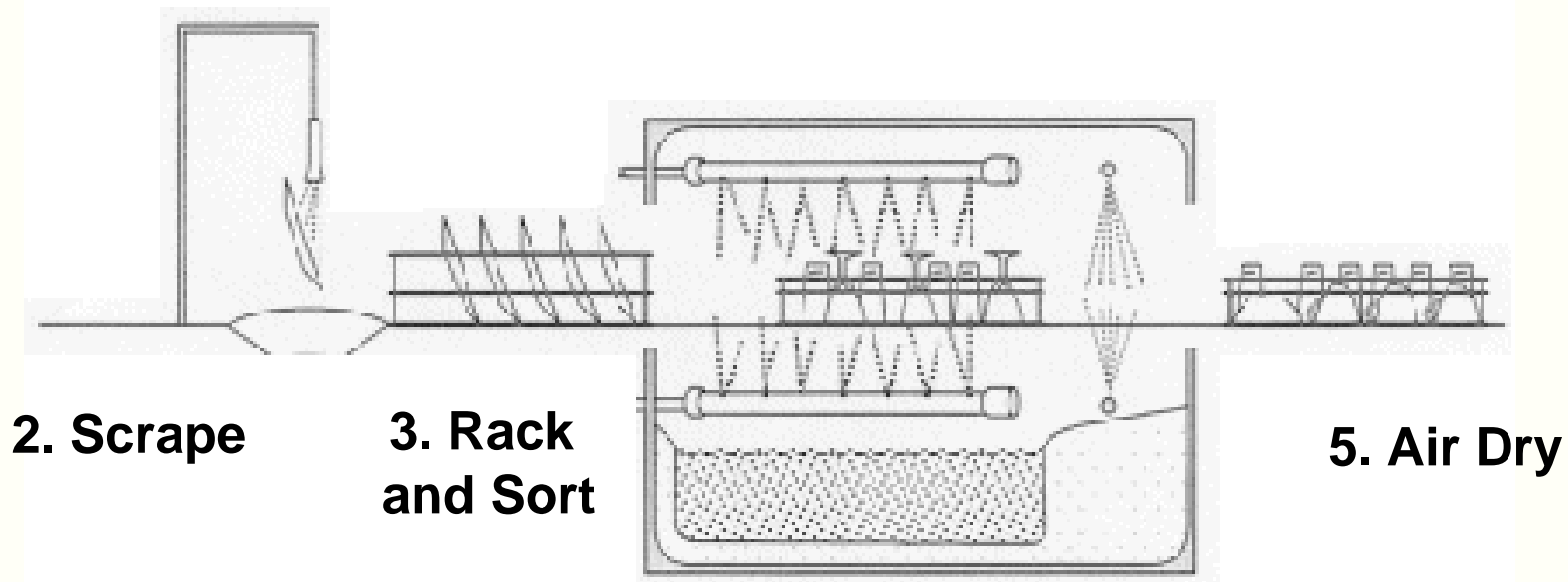


Change water frequently!

# Mechanical

1. Make sure the machine is clean

6. Wash Hands



2. Scrape

3. Rack  
and Sort

5. Air Dry

4. Wash, Rinse, Sanitize

- ✓ wash and rinse temperature
- ✓ sanitizer (hot water or chemical)
- ✓ final rinse water pressure

# What Would You Do?

The Problem:

Drain cleaner discovered  
connected to  
dishmachine!

The Problem:

Dish machine not  
hot enough to  
sanitize dishes



# Key Points

- Handwashing
- Symptoms
- No Bare Hand Contact
- The Right Temperatures
- Cooling/Reheating
- Dishwashing
- Approved Source



Remember  
Food  
Safety is  
In your  
hands!



# Test Question-Read all answers

- **Lack of handwashing is a known cause of foodborne illness. When do food workers need to wash their hands?**
  - A. After using the toilet.
  - B. Before starting work, after all breaks, and any other time hands get contaminated.
  - C. After handling raw foods, dirty dishes or garbage.
  - D. All of the above.

# Test Question

- **A handwashing sink must be properly stocked and available so food workers may wash their hands. What must be at a handwashing sink?**
  - A. Hot and cold running water, soap, and paper towels.
  - B. Running water, paper towels, and hand sanitizer.
  - C. Hot and cold running water, nailbrush, and paper towels.
  - D. Hot running water, soap, and hand sanitizer.



# Taking the Test

- Use only #2 pencil
- Darken each box completely
- If error is made erase completely
- Test ID
- Test is open book, but not open neighbor
- Fill in complete name and address

