Food Safety Is In Your Hands
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
Handwashing

Often

Well

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

Wet
NOROVIRUS

10,000,000
1,000,000
100,000
10-100
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
The Problem:
No hot water at the handwashing sink

What Would You Do?
Part 2: Cross-Contamination

- Define Cross Contamination
- Store food safely
- Wash, Rinse, Sanitize
- Safe chemical use
Prevent Contamination by Hands
<table>
<thead>
<tr>
<th>Safe Food Storage</th>
<th>Ready-to-eat foods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully cooked foods</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Green salad, orange, broccoli</td>
<td>Raw seafood</td>
</tr>
<tr>
<td></td>
<td>Fish, eggs</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw steak, raw pork (bacon, pork chops), raw ground</td>
<td>Raw poultry, raw ground</td>
</tr>
<tr>
<td></td>
<td>ground poultry (chicken, turkey, duck)</td>
</tr>
</tbody>
</table>
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)

- Keep hot food hot (135°F or hotter)
- Heat or cool food quickly

135°F

- WARNING
- Danger Zone

- Keep cold food cold (41°F or colder)
- Bacteria grow slowly

- Bacteria die
- Bacteria multiply
<table>
<thead>
<tr>
<th>Potentially Hazardous Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice, cooked veggies</td>
</tr>
<tr>
<td>Sprouts, cut melons</td>
</tr>
<tr>
<td>Meats</td>
</tr>
<tr>
<td>Dairy</td>
</tr>
<tr>
<td>Garlic in oil</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Foods and Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>165°F</td>
<td>Poultry, casseroles, stuffing, microwaved animal products, reheated PHF for hot holding</td>
</tr>
<tr>
<td>155°F</td>
<td>Ground meats, hamburger, sausage</td>
</tr>
<tr>
<td>145°F</td>
<td>Fish, shellfish, eggs, pork</td>
</tr>
<tr>
<td>135°F</td>
<td>Vegetables for hot holding, packaged foods like hot dogs or chili</td>
</tr>
</tbody>
</table>
Safe Poultry Cooking

165°F

160°F

155°F

150°F

145°F

140°F

135°F

130°F

165°F
Safe Ground Meat Cooking

155°F
Safe Roast Cooking

130°F - 158°F for roasts

time-temperature chart
Safe Cooking Temperatures
Seafood, Pork and Eggs

165°F
160°F
155°F
150°F
145°F
140°F
135°F
130°F

145°F
Safe Vegetable and Microwave Cooking

135°F

165°F

160°F

155°F

150°F

145°F

140°F

135°F

130°F

165°F
Hot-holding keeps bacteria from growing as rapidly in the food.

- Keep hot food hot (135°F or hotter)
- Heat or cool food quickly
  - 135°F
- Keep cold food cold (41°F or colder)
- Bacteria grow slowly
- Bacteria multiply

Safe Hot-Holding

Diagram with temperature zones and cartoon characters representing bacteria.
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

Keep hot food hot (135°F or hotter)

135°F

Heat or cool food quickly

41°F

Keep cold food cold (41°F or colder)

WARNING
Danger Zone

Bacteria multiply

Bacteria grow slowly

Bacteria die
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

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
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

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
1. Clean and sanitize sinks

2. Pre-wash Scrape

3. Wash
   hot water + detergent

4. Rinse

5. Sanitize
   (test sanitizer)

6. Air dry

Change water frequently!

*Graphic courtesy of the City of Toronto Public Health Department
Mechanical

1. Make sure the machine is clean
2. Scrape
3. Rack and Sort
4. Wash, Rinse, Sanitize
   - wash and rinse temperature
   - sanitizer (hot water or chemical)
   - final rinse water pressure
5. Air Dry
6. Wash Hands
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!
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