FOOD SAFETY AND HANDLING

Policies and Procedures
STORAGE & DISTRIBUTION GUIDELINES

- Store Perishables Promptly and Properly…
- Avoid leaving frozen or refrigerated food in a warm place, particularly in a car.
- Refrigerate all products marked “Keep Refrigerated” and freeze those with “Keep Frozen” labels.
- Refrigerate eggs in original carton.
- Leave product in store packaging. Discard if packaging is torn. Enclose leaking products within a secondary container or wrapping if needed. **DO NOT REPACKAGE ANY PRODUCT.**
- Date all undated products and rotate older products to front of the shelf.
- Always store foods in clean, dry places away from household cleaners and where pest can get to them. Do not store foods under the sink.
- A regular cleaning schedule must be maintained.
- Regular trash removal and pest extermination schedule must be maintained. (Use of rodent proof containers is recommended.)
- Food must be stored at least 6 inches off the floor and 4 inches away from the walls.

TIPS FOR VEGETABLES & FRUITS

- Dry onions, potatoes, rutabagas and winter squash usually keep best in cool (preferably around 50°-60°F) in dark places. However, onions and white potatoes will sprout in spring, so at this time, buy only what you can use within a week.
- Do not refrigerate sweet potatoes. Cold temperatures (below 50°F) cause starch changes which alter the flavor.
- Ripen tomatoes at room temperature. Do not put them in direct sunlight. When ripened, store in the refrigerator.
- Store apples in a cool place (below 60°F) during the fall following harvest. After this time, they deteriorate rapidly and should be kept in the refrigerator.
- Ripen firm avocados and cantaloupe at room temperature. Allow 3 to 5 days for avocados and 2 to 4 days for cantaloupe.
Cooking temperatures destroy most bacteria. Time required to kill bacteria decreases as temperature in increased.

Warming temperatures prevent growth but allow survival of some bacteria.

**DANGER ZONE:**
Temperatures above 40°F allow for rapid growth of bacteria and production of toxins by some bacteria which causes food poisoning. **Don’t leave food at room temperature for more than 2 hours.**

Cold temperatures permit slow growth of some bacteria that causes spoilage.

Freezing temperatures stop growth of some bacteria but may allow bacteria to survive and grow again when defrosting occurs.

**REFRIGERATOR STORAGE TIPS:**

**Temperature:** 32° - 40°F is best. *Check temperature with a refrigerator thermometer or an outdoor thermometer.*

**Time:** Use food quickly—don’t depend on maximum storage time.

**General Care:** Clean refrigerator regularly to cut down food odors. Remove spoiled foods immediately so that decay can’t be passed to other foods.
Food Safety Risk Factors

Risk factors are those practices or procedures that pose the greatest potential for foodborne illness. The risk factors are determined by the Center for Disease Control and Prevention (CDC) and the US Food and Drug Administration (FDA).

- **FOOD SOURCE**
  - Food from unapproved or uninspected source
  - Unsound condition of food, adulterated food
  - Shellfish records not maintained properly

- **INADEQUATE COOKING**:
  - Improper cooking temperatures
  - Improper reheating temperatures

- **IMPROPER HOLDING**:
  - Unsafe cooling
  - Lack of date marking
  - Improper cold/hot holding temperatures

- **CONTAMINATION**:
  - Raw meats not separated from ready-to-eat foods
  - Species not separated
  - Equipment

- **POOR PERSONAL HYGIENE**:
  - Lack of appropriate hand washing
  - Bare hand contact with ready-to-eat food
  - Ill food workers
  - Employees eating, drinking or using tobacco outside of designated areas
  - Inadequate hand sink
  - Lack of soap or paper towels

- **ENVIRONMENTAL CONTAMINATION**:
  - Improper storage, labeling, or usage of chemicals
  - Presence of insects or rodents
  - Lack of potable water
  - Improper sewage disposal
Be on the Lookout for FBI (Foodborne Illness)

Is “Looking Clean” Enough to Prevent Foodborne Illness?

- **FBI Statistics:**
  - 76 Million Cases of FBI a Year in the U.S.
  - 325,000 Hospitalizations a Year a Year in the U.S. Caused by FBI
  - 5,200 Deaths a Year in the U.S. Caused by FBI
  - $7.7 - $23 Billion Annual Cost
  - $77,000 Average Cost Per Incident

- **FBI Agents:**
  - Biological Hazards: *Bacteria, Viruses, Parasites, Yeast, Molds*
  - Physical Hazards: *Glass, Toothpicks, Fingernails, Jewelry*
  - Chemical Hazards: *Cleaners & Sanitizers, Pesticides, Medications*
  - Naturally Occurring Chemical Hazards: *Fish Toxins, Plant Toxins*

- **FBI Sources:**
  - Humans/Foodworkers: *Contaminated Hands, Illness*
  - Foods: *Contaminated Food, Time & Temp Abuse*

- **FBI Symptoms:**
  - Common Symptoms (onset 12-36 hours): *Diarrhea, Cramping, Nausea, Vomiting, Low-Grade Fever, Body Aches*
  - Rare Symptoms: *System Shutdown, Coma, Death*
Ill Foodworkers

- **Restriction**
  - **Symptoms**
    - Diarrhea
    - Vomiting
    - Fever
    - Jaundice
    - Sore Throat w/Fever
    - Infected Wound (i.e. cut, lesion, boil)
    - Contact w/ “Confirmed Big 4”

- **Exclusion**
  - **Confirmed Big 4**
    - Salmonella Typhi
    - Shigella
    - Shiga Toxin-Producing E coli
    - Hepatitis A
Potentially Hazardous Foods

WHAT ARE POTENTIALLY HAZARDOUS FOODS (PHF)?

- **MEAT ● DAIRY**
  - Cooked or raw animal (protein) products, such as meats, poultry, dairy, milk, cheese, fish & seafood

- **STARCH**
  - Heat treated vegetables and starches, such as cooked rice, beans, potatoes, & pasta.

- **SPROUTS ● MELONS**
  - Tofu, Raw Seed Sprouts, Cut Melons, Garlic in Oil, Etc.
Observe Good Hygienic Practices

- Wash hands only in the hand sink – not in the dishwashing, food preparation or mop sinks
- Ill employees can cause FBI. Enforce sick leave policy or reassign duties
- Eat, drink or use any form of tobacco only in designated non-food production areas
- Do not use a common cloth towel or apron for hand wiping
- No bare hand contact with ready-to-eat food!
- Wear nails short, clean and unpolished. Restrict rings to plain bands
- Cover open cuts and burns with finger cots, bandages or single-use gloves
- Follow single-use glove guidelines
Cross-Contamination

Avoid the Risk

No bare hand contact with ready-to-eat food or ice

Use proper utensils or sing-use gloves

Practice good handwashing and hygienic habits

Store raw meat, raw poultry, and raw shell eggs below cooked or ready-to-eat foods in the cooler

Clean and sanitize all utensils and surfaces that touch food:
- After each use
- When changing product
- Between meat species
- Frequently when preparing large amounts
- Between raw meats and cooked or ready-to-eat meats
2 Stage Cooling is required
Cooked potentially hazardous foods need to move quickly through the temperature danger zone to limit microbial growth:

Stage 1: 140°F – 70°F in 2 hours
- Or within 4 hours if food is prepared using ingredients normally stored at room temperature

Stage 2: 70°F - 41°F in next 4 hours

Cooling Methods

Shallow Metal Pans – 2”-4” deep
- Leave pan partially uncovered
- Refrigerate immediately
- DO NOT stack hot pans – allow for air flow

Ice Bath – must use ice and water
- Fill a clean sink or large pan with ice and fill spaces with cold water
- Divide product into 1 gallon containers
- Immerse product pan to depth of product in sink or larger pan until it is level with ice
- Agitate/stir every 10 minutes using an ice paddle or other equipment
- Drain water and replenish ice as it melts
- Use a clean thermometer to monitor the temperature of the food
- After the food has cooled to 41°F, refrigerate immediately

Small Portions – reduce the mass/volume
- Divide food into smaller pans
- Separate food into smaller or thinner portions (2” depth for thick foods/4” for thin liquids)
- Cut or slice portions of meat no larger than 4” or 4 pounds.

Hints:
- Add ice directly to the product as an ingredient
- Use rapid chill refrigeration equipment that encourages quick cooling
- Never try to cool foods in plastic containers
- Never allow foods to cool at room temperature
Cleaning and Sanitizing

Manual Warewashing Steps:
1. Wash
   - Clean and sanitize sinks and drain boards
   - Pre-soak/pre-rinse all eating utensils and equipment
   - Use hot soapy water
2. Rinse:
   - Use clean hot water
3. Sanitize:
   - Use 50-200 ppm chlorine; mix with cool water or
     200 ppm quaternary ammonia; mix with 75°F water
   - Immersion time is 60 seconds
   - Air dry utensils and equipment
   - Use appropriate test strips to check concentration
4. Air Dry

Mechanical Dishmachines: (Pre-rinse before leading any machine)
HIGH TEMPERATURE:
1. Wash Temperature:
   - Single tank, stationary rack, dual temperature machine . . . 150°F
   - Single Tank, conveyor machine 160°F
2. Hot Water Sanitization:
   - 180°F at manifold
   - 160°F at plate level

LOW TEMPERATURE:
1. Chemical Sanitization Required
2. Water Temperatures According to Manufacturer
3. Chemicals Must Be Auto Dispensed into Final Rinse Water; Check Daily
4. Must Have a Visual or Audible Low Sanitizer Indicator

*Making 100PPM Chlorine Solution is as Easy as 1-2-3 (1 ounce bleach to 3 gallons water)*
INSECT & RODENT CONTROL
(cockroaches, flies, mice, rats, etc.)

Insects and rodent carry diseases and can contaminate food and food-contact surfaces. Utilize measures to minimize their presence

- Protect out openings by keeping outer doors closed, repair screens, maintain tight fitting doors & openings, use air curtains
- Eliminate harborage conditions
- Exterminate regularly

TOXIC MATERIALS

These Items Can Be Poisonous or Toxic If Ingested

- Detergents
- Sanitizers
- Polishes & Cleaners
- Insecticides
- Rodenticides
- First Aid Supplies & Personal Medication

Storage, Labeling & Use

- Store separately from foods & food-contact surfaces
- Never store above foods or food surfaces
- Label all toxins
- Use only approved chemical in food areas
## Corrective Actions

<table>
<thead>
<tr>
<th><strong>RISK FACTOR</strong></th>
<th><strong>CORRECTIVE ACTION</strong></th>
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</table>
| **Approved Source/Sound Condition**  
• Food from unapproved source/unsound condition | • Discard/Reject/Return |
| **Hand Washing**  
• Food employee observed not washing hands at appropriate time | • Employee should be instructed when and where to wash hands |
| **Cold Holding**  
• Potentially hazardous food held above 41°F MORE than 4 hours  
• Potentially hazardous food held above 41°F LESS than 4 hours | • Discard  
• Use immediately or cool rapidly |
| **Cooking**  
• Potentially hazardous food is undercooked | • Continue cooking to proper temperature |
| **Hot Holding**  
• Potentially hazardous food held below 140°F MORE than 4 hours  
• Potentially hazardous food held below 140°F LESS than 4 hours | • Discard  
• Rapidly reheat, 165°F in LESS than 2 hours or discard |
| **2-Stage Cooling Process**  
• Potentially hazardous food cooled form 140°F to 70°F in MORE than 2 hours  
• Potentially hazardous food cooled from 70°F to 41°F in MORE than 4 hours | • Use alternative cooling method  
• Use alternative cooling method or discard. Discard if total cooling time is more than 6 hours |
| **Reheating**  
• Potentially hazardous food in improperly reheated | • Use direct reheating method to achieve 165°F immediately or discard |
## Minimum Cooking Internal Product Temperatures

<table>
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|              | 145°F (63°C)| injected meat;
|              | for 3        | COMMINUTED    |
|              | minutes      | (ground,      |
|              |              | chopped,      |
|              |              | restructured,|
|              |              | combined,    |
|              |              | etc.) raw    |
|              |              | animal foods|
|              |              | such as      |
|              |              | fish, meat,  |
|              |              | game animals|
|              |              | commercially|
|              |              | raised for   |
|              |              | food (3-201.17|
|              |              | (C)(1) (3-201.17|
|              |              | (C)(2)),     |
|              |              | exotic animals|
|              |              | or rabbits;  |
|              |              | and raw shell |
|              |              | eggs not      |
|              |              | prepared for  |
|              |              | immediate      |
|              |              | service (pooled|
|              |              | or hot held). |
| 145°F (63°F) | for 15       | Raw shell    |
|              | seconds      | eggs prepared|
|              |             | for immediate |
|              |             | service;     |
|              |             | commercially |
|              |             | raised for    |
|              |             | food game     |
|              |             | animals,     |
|              |             | exotic animals|
|              |             | or rabbits,   |
|              |             | and other    |
|              |             | fish & meat  |
|              |             | not otherwise |
|              |             | specified in |
|              |             | this table.  |

## While Roast of Beef, Corned Beef Roast, Pork Roast and Cured Pork Roast (such as Ham)

**Note:** the period of time at each temperature may include post-cooking heat rise.

<table>
<thead>
<tr>
<th>Temperature Degrees F. (C)</th>
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<th>Temperature Degrees F. (C)</th>
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<tbody>
<tr>
<td>130 (54.4)</td>
<td>112  min.</td>
<td>140 (60.0)</td>
<td>12 min.</td>
<td>151 (66.1)</td>
<td>54 sec.</td>
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<td>131 (55.0)</td>
<td>89   min.</td>
<td>142 (61.1)</td>
<td>8 min.</td>
<td>153 (67.2)</td>
<td>34 sec.</td>
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<tr>
<td>133 (56.1)</td>
<td>56   min.</td>
<td>144 (62.2)</td>
<td>5 min.</td>
<td>155 (68.3)</td>
<td>22 sec.</td>
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<td>135 (57.2)</td>
<td>36   min.</td>
<td>145 (62.8)</td>
<td>4 min.</td>
<td>157 (69.4)</td>
<td>14 sec.</td>
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<tr>
<td>136 (57.8)</td>
<td>28   min.</td>
<td>147 (63.9)</td>
<td>134 sec.</td>
<td>70.0 (158)</td>
<td>0 sec.</td>
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<td>138 (58.9)</td>
<td>18   min.</td>
<td>149 (65.0)</td>
<td>85 sec.</td>
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