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# **Basic Food Handlers Course for Temporary/Short-term Food Sales/Events**

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Preventive Medicine  
Environmental Health Services  
Ireland Army Health Clinic  
Fort Knox, KY



# Food Handlers Course

□ Purpose: To provide Preventive Medicine guidance and support to members of the Fort Knox community who wish to prepare and offer food products on a short-term basis to the public. This training will equip food handlers with the basic principles of food safety that must be applied when conducting a temporary food operation on the installation.

\* This basic food handlers course does not meet the requirements for the 4-hour annual training required for employees of food service establishments operating on Fort Knox.



# Tri-Service Food Code

- All food service establishments operating on Fort Knox are subject to inspection by PM/EHS for compliance with the Tri-Service Food Code (TB MED 530).
- Training Requirements— All food employees will be trained to perform prescribed duties in a safe manner and in accordance with prescribed sanitation and food safety requirements.
- All individuals preparing or serving food for consumption within the Fort Knox area of responsibility must receive basic food handling training with a valid food handlers certificate. Certification is valid for one year from date of issue.





# Tri-Service Food Code

- ❖ Food Employee: An individual working with unpackaged food, food equipment or utensils, or food-contact surfaces.
- IAW Tri-Service Food Code/TB MED 530, individuals preparing, cooking and/or serving unpackaged foods are considered food employees.
- Foods served at Temporary/Short-term food sales/events are to be prepared on-site utilizing food safety principles and methods. Potentially hazardous foods are NOT to be prepared in a home kitchen and offered for consumption at the sale/event.
- ❖ *Home-prepared foods, except home-canned foods, are authorized in support of special events such as organizational cookouts, bake sales (non-potentially hazardous foods only), unit or chapel suppers, and similar events.*
- ❖ *Consult with the REGULATORY AUTHORITY to assess RISKS associated with foods prepared in private homes.*



Training will include the basic principles of food safety, which includes but is not limited to the **CDC 5 foodborne illness risk factors**:

1. Food from unsafe sources
2. Inadequate cooking
3. Improper holding/time-temperature
4. Contaminated equipment/cross contamination protection
5. Poor personal hygiene

Additionally, we will discuss:

- Labels
- Allergens
- Site specific requirements



## **PHF (TCS): Potentially Hazardous Food (Time/temperature Control for Safety)**

- ❖ Defined as foods that require time/temperature control for safety to limit pathogen growth or toxin formation.
- Examples: dairy, lunch meat, hot dogs, raw meats & poultry, cut fruits & vegetables, eggs, cooked plant foods, dressings, raw seed sprouts, garlic & oil mixtures, etc.

## **Non-Potentially Hazardous Food**

- ❖ Defined as foods that do not support the growth of microorganisms
- Examples: cookies, cakes, muffins, breads\*
  - \*Baked goods containing an animal/dairy product, fruit, or vegetable add-in will be treated as a PHF.





- ❖ Food, including all ingredients, shall be obtained from **APPROVED** and **INSPECTED** sources. (Commercially purchased)
- ❖ Example of unapproved foods:
  - Home-Canned Foods (food in a hermetically sealed container prepared in a private home) are not permitted to be used as an ingredient or offered for human consumption.  
(example: Home-canned vegetables such as Green Beans, Tomato Juice, Apple Butter, Jams, or Jellies, etc.)
  - Home grown vegetables, fruits, or herbs may not be used as an ingredient or offered for human consumption.
- ❖ Meat & Poultry shall be from a USDA inspected source.
  - Farm-fresh eggs, personal-raised beef, pork, or poultry from an uninspected source may not be used. Game animals may not be offered for consumption.



## For Non-Potentially Hazardous Foods:

Consumer shall be informed by a clearly visible placard at the sales or service location that the food is prepared in a kitchen that is not subject to regulation and inspection by the Regulatory Authority (PM/EHS).

“Food sold at this location has been prepared in a home kitchen that is not subject to regulation and inspection by the Regulatory Authority.”





# Where to prep foods?

ALL Potentially Hazardous Foods (PHF) must be prepared ONSITE utilizing the appropriate sanitary measures to ensure a wholesome and safe food product.

- ❖ PHF foods cannot be prepared in a home kitchen.



# ICE

- ✓ ICE must be made from drinking water.
- ✓ Ice must come from an approved source



- ❖ Stored in the original package or in a clean and sanitized cooler.
- ❖ Ice used for cold holding may not be served for consumption or used as an ingredient.



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# Washing Fruits & Vegetables

- Raw fruits and vegetables must be thoroughly washed in potable water to remove contaminants before being cut.
- Washed fruits and vegetables must be kept separate from the ones that have yet to be washed.
- Cut fruits & vegetables must be held at 41° F or below.



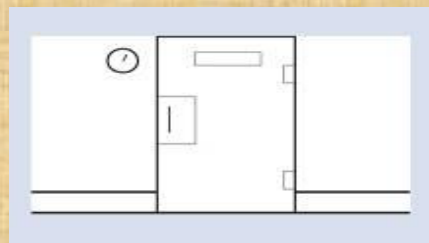




# Proper Thawing Methods

- Refrigeration (\*PREFERRED METHOD)

- ✓ 41°F or below.



- Running water

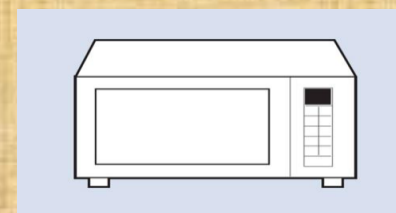
- ✓ Water temperature 70°F or below.

- ✓ Sufficient water velocity to agitate and float off loose particles in an overflow.



- Microwave oven

- ✓ Immediately transferred to conventional oven.



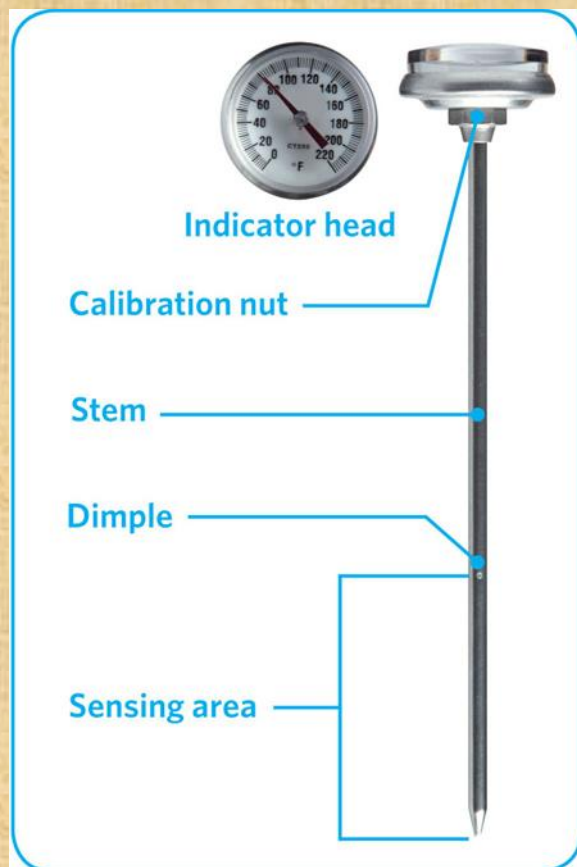
- As part of the cooking process.





# Checking Internal Temperatures

Using a bimetallic stem thermometer  
(Marked 0-220 ° F, +/- 2 ° F) Use to check and monitor the internal temperature of PHFoods.



*\*Tip\** To calibrate thermometer:

Place thermometer in a cup of 50/50 Ice Water. Allow temperature to stabilize. Should read 32° F. If not, use a pair of plyers and adjust the calibration nut.



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# Checking Internal Temperatures

- Insert stem into the **THICKEST** part of the food to gain an accurate reading.
- If checking food in a crock pot, do not let stem rest on the sides or bottom of the crock.
- Clean and sanitize with an alcohol prep before and after use.







### 145°F (63°C) or above and held for 15 seconds

- Shell eggs that will be served immediately
- Steaks/chops of pork, beef, veal, and lamb
- Commercially raised game
- Seafood-including fish, shellfish, and crustaceans
- ❖ Whole Intact Meat Roast (beef, corned beef, lamb, pork, and cured pork roasts such as ham) shall be cooked to 145°F and held at 4 minutes (other time/temperature ranges are available, please consult with EHS for more info.)



**155°F (68°C) or above and held for 15 seconds**

- Shell eggs that will be hot held (Ex: buffet)
- Ground meat (beef or pork, Ex: hamburger)
- Injected meat (incl. brined ham and flavor injected roasts)
- Tenderized meat
- Ratites (emu, ostrich)
- Ground seafood (incl. ground or chopped)



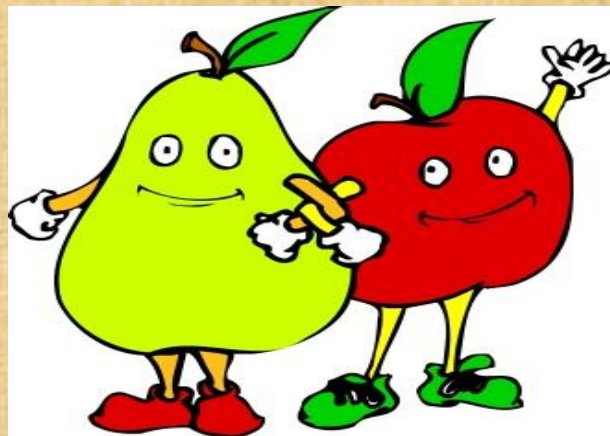
**165°F (74°C) or above and held for 15 seconds**

- All Poultry (Ex: chicken, turkey, duck, etc.)
- Stuffed Fish, Meat, Pasta, Poultry, Ratites(emu, ostrich, rhea)
- Stuffing containing Fish, Meat, Poultry, or Ratites
- Wild Game Animals
- \*Raw animal foods cooked in a microwave oven. (Shall be rotated/stirred, covered, and allowed to stand for 2 minutes)





Fruits and vegetables that are cooked for hot holding shall be cooked to an internal temperature of **135°F (57°C)**.

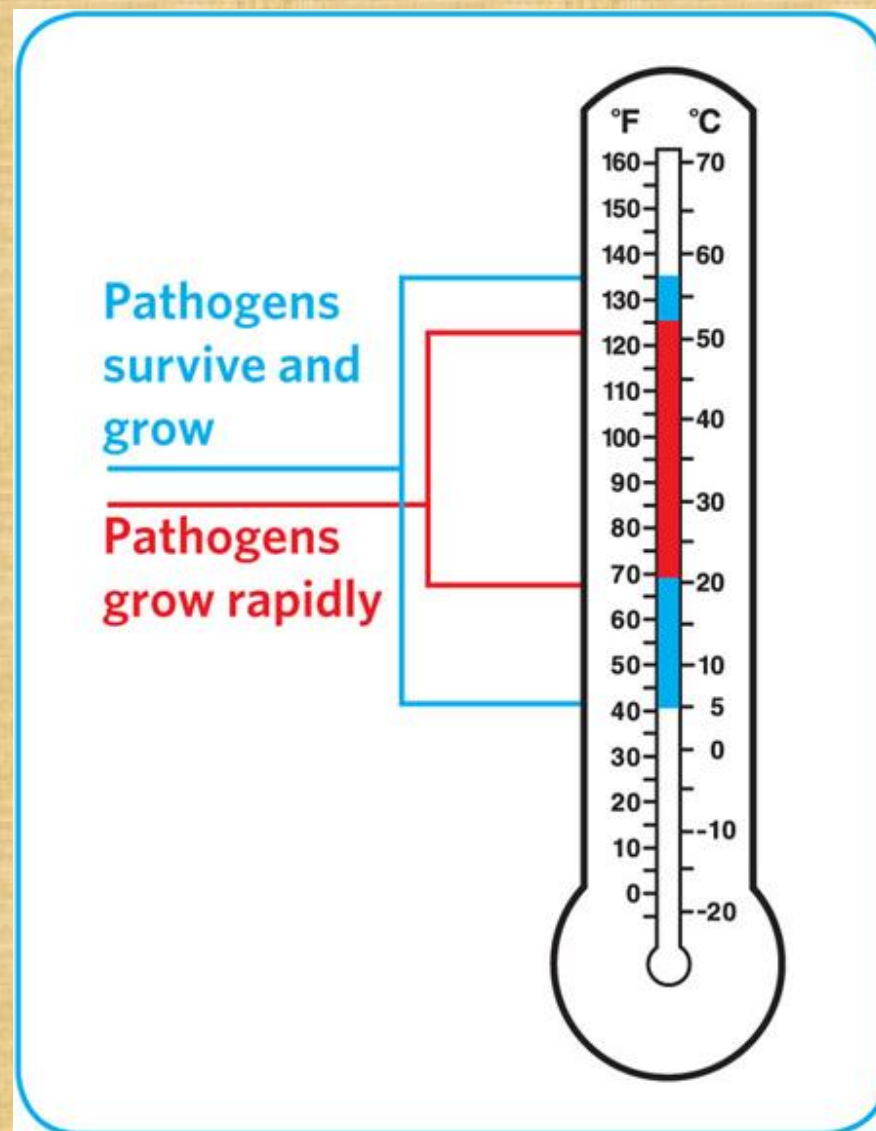




# Temperature DANGER ZONE

## Temperature Danger Zone:

- 41 ° F to 135 ° F
- This is the temperature range that pathogens grow well. Food must pass thru this range quickly!
- Pathogens grow rapidly between 70° F and 120°F





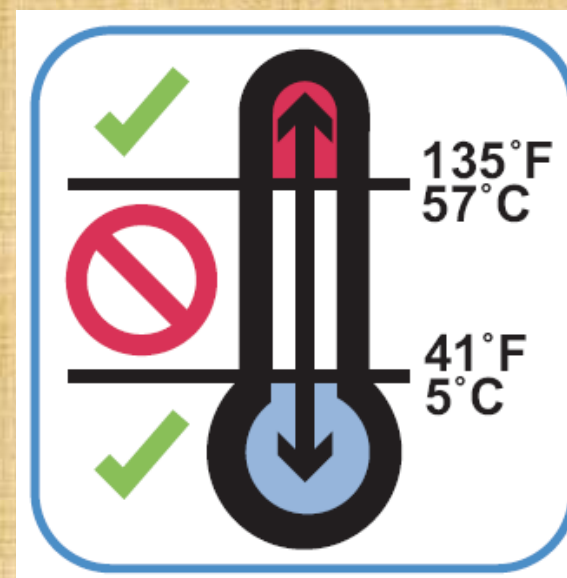
PHF(TCS) Food shall be maintained—

(1) At **135°F (57°C)** or above (Hot Holding)

(2) At **41°F (5°C)** or less (Cold Holding)

(3) Plant foods that are cut, sliced, or diced as well as cooked plant foods shall be maintained at **135°F** or above OR at **41°F** or below.

- ❖ Keep **HOT** foods **HOT** &
- ❖ Keep **COLD** foods **COLD**



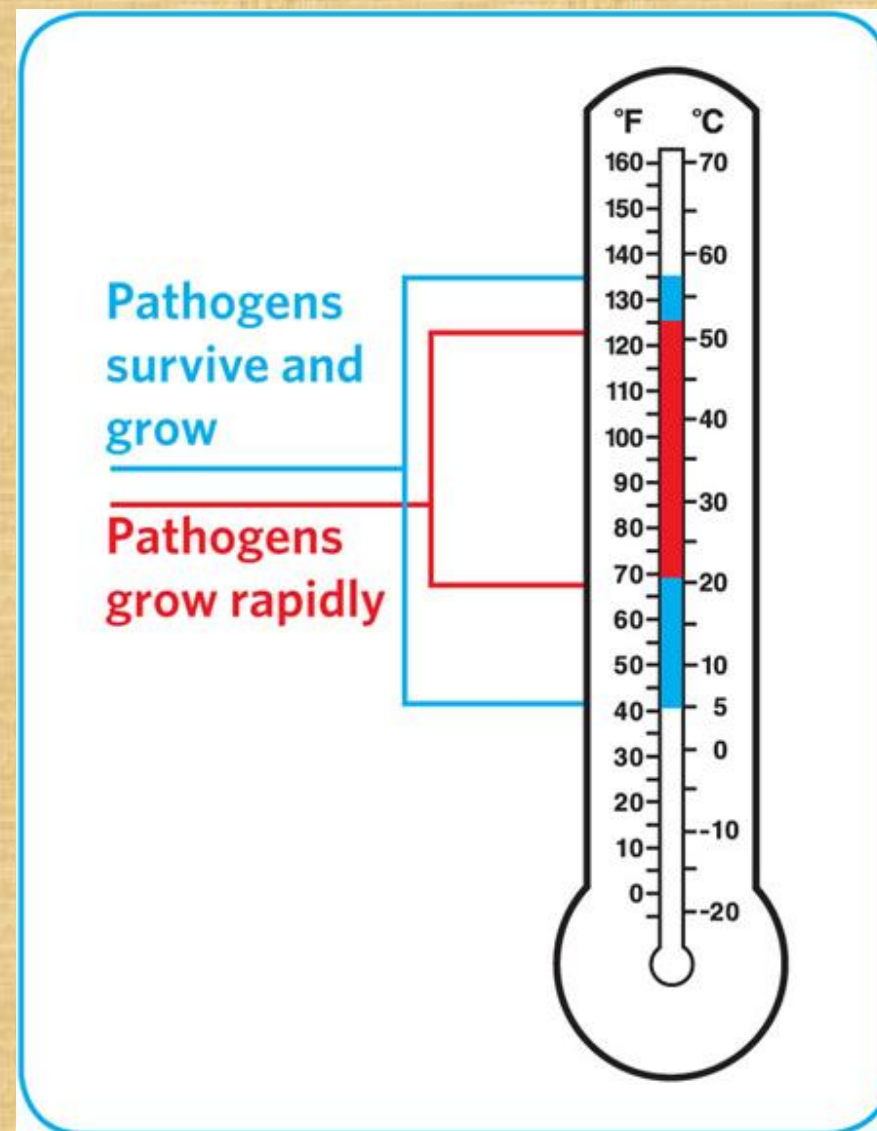




# Reheating PHF

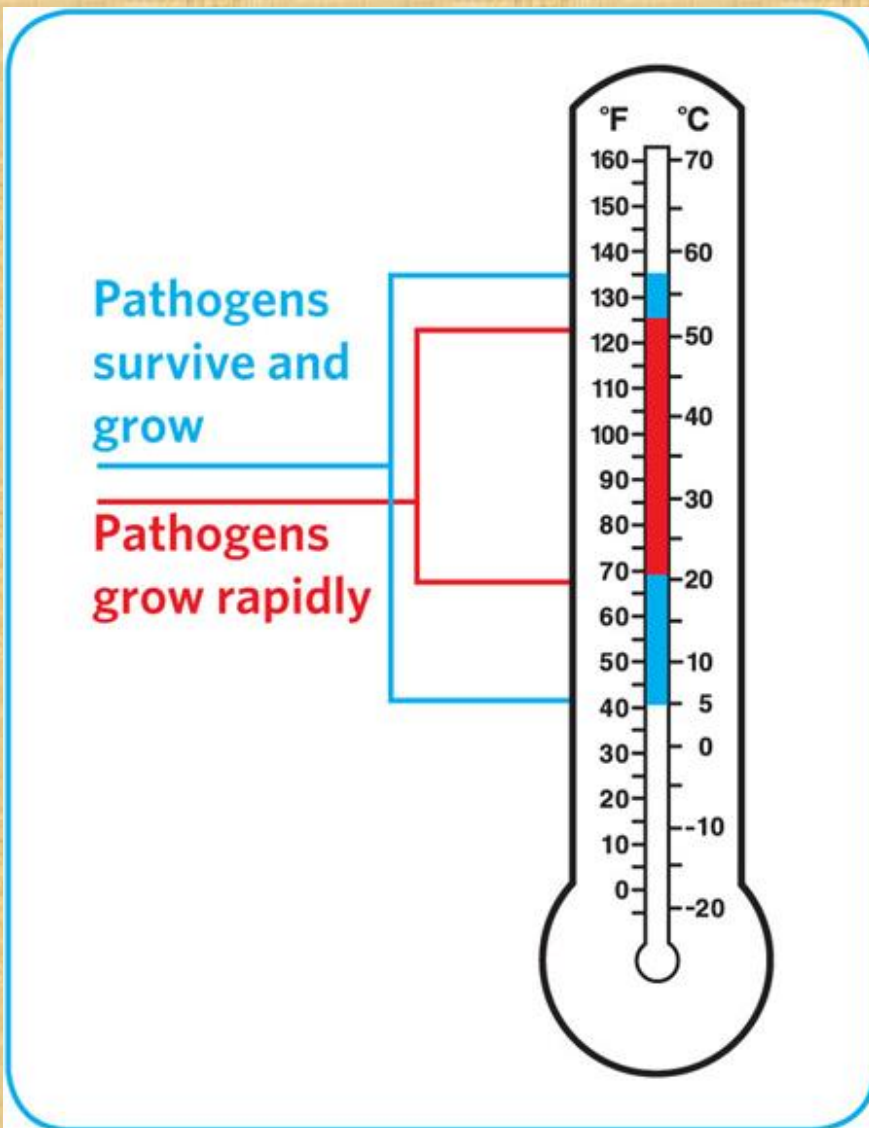
## REHEATING Foods:

- ✓ PHF foods shall be heated from 41 ° F to 165 ° F (and held for 15 seconds) within 2 hours





# COOLING PHF



## COOLING Foods:

- ✓ 1<sup>st</sup>: Cool food from 135° F down to 70 ° F within 2 hours.
- ✓ 2<sup>nd</sup>: Then Cool Food from 70 ° F down to 41° F or lower in the next 4 hours.  
(Total time ≤ 6 hours)



## Proper Cooling Methods

- Placing in shallow pans and refrigerate
- Separating into smaller or thinner portions and refrigerate
- Using rapid cooling equipment
- Stirring the food in a container placed in an ice water bath
- Using containers that facilitate heat transfer
- Adding ice as an ingredient







Leftovers may be retained IF ALL of these conditions are met:

- ✓ PHF was cooked to the correct internal temperature
- ✓ Held at the correct hot ( $\geq 135^{\circ}$  F) temperature AND the food product was RAPIDLY COOLED (from  $135^{\circ}$ F down to  $70^{\circ}$  F within 2 hours AND from  $70^{\circ}$  F down to  $41^{\circ}$  F with in the next 4 hours, not to exceed 6 hours)
- ✓ Held at the correct cold ( $\leq 41^{\circ}$  F) temperature
- ✓ The food product must NOT have been available for customer self-service



# Prevent Cross-Contamination

Cross-Contamination= Pathogens are transferred from one surface or food to another

## Guidelines to Prevent Cross-Contamination:

- ✓ Separating Raw animal food from other raw animal food & from Ready-to-Eat foods
- ✓ Cleaning & Sanitizing Equipment & Utensils
- ✓ Prepping Food at Different Times
- ✓ Use Separate/Designated Equipment
- ✓ Separating fruits & vegetables before they are washed from Ready-to-Eat foods
- ✓ Buying Prepared Food



**\*Keep RAW & Ready-to-Eat Foods SEPARATE\***



- Food handlers shall wash their hands in a designated hand washing sink as required.
- Use disposable food service gloves properly.
- Food handlers may NOT contact exposed, ready-to-eat foods with their bare hands and shall use suitable utensils such as deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment.





# When to Wash Hands

- Food employees shall clean their hands and exposed portions of their arms immediately before engaging in food preparation including working with exposed food, clean equipment, and utensils, and unwrapped single-service and single use articles



# When to Wash Your Hands:

## Wash Your Hands AFTER:

- ✓ touching bare human body parts other than clean hands and clean, exposed portions of arms
- ✓ using the restroom
- ✓ caring for or handling service animals
- ✓ coughing, sneezing, using a handkerchief or tissue
- ✓ using tobacco, eating, or drinking
- ✓ handling soiled equipment or utensils
- ✓ during food preparation, as often as necessary to remove soil and contamination and to prevent cross-contamination

## AND Wash Your Hands:

- ✓ when switching between working with RAW & READY-TO-EAT Foods
- ✓ before and after wearing gloves
- ✓ engaging in other activities that contaminate hands.





# How to Wash Your Hands

1. Rinse under potable, running warm water
2. Apply an amount of cleaning compound
3. Rub together vigorously for at least 10-15 seconds, paying attention to under the nails, cuticles, between the fingers, fingertips, and any exposed area of the forearms
4. Thoroughly rinse under potable, running warm water
5. Thoroughly dry with disposable towels or a heated-air hand drying device.

\*Entire handwashing process should take at least 20 seconds.

\*To avoid recontamination of your hands, use a disposable paper towel or similar clean barrier when touching the faucet handles of the handwashing sink or the handle of the restroom door.





# Handwashing Requirements

- ❖ If food is handled in an **Unpackaged** form, adequate hand washing facilities **MUST** be provided.
- ❖ Hand washing facilities shall include:
  - 1) Sufficient supply of potable water for wetting hands
  - 2) Soap
  - 3) Sufficient supply of potable water for rinsing hands
  - 4) Disposable paper towels
  - 5) Covered receptacle for waste



## Proper Use of Gloves

- Single-use gloves shall be used for only one task such as working with ready-to-eat foods or with raw animal food,
- Used for no other purpose, and
- Must be discarded when damaged, soiled, or when interruptions occur in the operation.





- Gloves must never replace hand washing
  - If misused, gloves may serve as a source of cross-contamination
  - All disposable gloves, regardless of type, shall be powder-free.
- 
- \* Use of latex gloves is prohibited
  - \* *Alternatives to latex include synthetic rubber or non-latex materials, such as neoprene, nitrile, or vinyl.*





All utensils that come in contact with food, must be:

- ✓ Stored in the food product with the handle up and not in contact with the food product or container
- ✓ Stored covered or wrapped between use to prevent contamination
- ✓ If held out of temperature control, replaced with a sanitized utensil every 4 hours or less. (max. time is 4 hours)





# Serving/Dispensing Utensils

- Single-use and service items must be kept in original packaging, handled, or displayed where the food or lip-contact surface will not be exposed to contamination.
- Display utensils with the handle UP to prevent contamination.







# Where Do I Set Up?

- Locate a clean, dry area with ground cover and no overhead or nearby contaminants
- If a tent is used, inspect and clean tent PRIOR to setup to avoid contamination
- Must be 50 feet away for dumpsters, recycling bins, smoke shacks, other sources of contamination. Must be 90 feet from bodies of water.
- Must be 100 yards from port-a-lets in an outdoor setting.
- Accessible to a power source if electricity is needed for hot/cold holding or cooking equipment.





# What you may need to operate

- ❖ On-site Equipment: (will vary based on your operation)
- ✓ Hand washing capabilities & supplies
- ✓ Disposable gloves and utensils for ready-to-eat food handling
- ✓ Adequate cooking equipment & cooking utensils
- ✓ Adequate number of food preparation & serving utensils
- ✓ Bimetallic Metal Stem Thermometer & ability to sanitize
- ✓ Adequate cold & hot holding equipment
- ✓ Food covers/protection from the elements
- ✓ Ware washing containers, adequate cleaner, and sanitizing solution and sanitizing test strips if washing utensils on-site
- ✓ Covered trash receptacles
- ✓ Single-serve items for patrons (disposable utensils, plates, napkins, cups, etc.)
- ✓ Ability to store food a minimum of 6 inches off the ground



# Ware washing Setup

If you will be cleaning and sanitizing food contact surfaces on site, you must have:

- 3 containers of adequate size to immerse food equipment.  
(Potable Water Only)
- 1<sup>st</sup>- Wash Container of SOAPY water
- 2<sup>nd</sup>-Rinse Container of RINSE water
- 3<sup>rd</sup>-Sanitize Container of SANITIZING SOLUTION  
(100 ppm Free Available Chlorine)
- 4<sup>th</sup>-Air Dry Equipment in a sanitary manner



## Chlorine sanitizing solution

### ➤ Preparation:

1. Standard, non-scented household-type bleach or calcium hypochlorite (rated at 5 to 6 percent chlorine concentration)
2. Mix 2 tablespoons (1 ounce) of bleach in 4 gallons of water
3. Should give a concentration of 100-ppm Free Available Chlorine (FAC) sanitizing solution
4. Check concentration with sanitizing test strips, adjust as needed





# Handling of Trash/Refuse

- All receptacles must be durable, cleanable, insect and rodent-resistant, leak-proof and nonabsorbent.
- Receptacles must be kept covered if the receptacles:
  - Contains food residue and are not in continuous use
  - After they are filled
- Remove often to minimize odors and to prevent the attraction of pests.

- Receptacles must be kept covered with:
  - Tight-fitting lids
  - must be of sufficient size for the operation.





Do NOT prepare food or come in contact with the food service operation if you or someone you have been exposed to has symptoms of:

- Vomiting
- Diarrhea
- Jaundice
- Sore Throat with a Fever
- Open wounds or skin lesion containing pus (example: boil or infected wound that is open or draining)

Or a diagnosis of:

- \* *Shigella* spp.
- \* *Salmonella* Typhi
- \* Nontyphoidal *Salmonella* (NTS)
- \* Shiga toxin-producing *Escherichia coli* (STEC), also known as *E. coli*
- \* Hepatitis A
- \* Norovirus





# Employee Attire



✓ Persons must wear clean outer garments to prevent contamination to food, utensils, equipment, linen, single-service and single-use items.

- ✓ No nail polish, fingernail jewelry, or artificial nails
- ✓ Fingernails trimmed to ¼ inch past fingertip, filed, & cleanable
- ✓ All persons handling and prepping food shall wear a hair restraint to effectively keep their hair and sweat from contacting exposed food, clean equipment, and single-use items by wearing:
  - Hats
  - Hair nets
  - Beard Restraints
  - Clothing that covers body hair





## Major Food Allergens

### The “Big Eight”

- MILK
- EGGS
- FISH, SUCH AS BASS, FLOUNDER, & COD
- WHEAT
- SOYBEANS, SOY
- PEANUTS
- CRUSTACEAN SHELLFISH, SUCH AS CRAB, LOBSTER, & SHRIMP
- TREE NUTS, SUCH AS WALNUTS, ALMONDS & PECANS



- Symptoms of an allergic reaction can happen immediately after ingestion or can occur several hours later.
- Mild symptoms can become more severe quickly. Symptoms could lead to anaphylaxis.
- \* If a customer has an allergic reaction, call 911 immediately.



# Possible ALLERGIC REACTION SYMPTOMS

Allergic reaction symptoms may include, but are not limited to:

- Nausea
- Wheezing or shortness of breath
- Hives or itchy rash
- Flushed skin or rash
- Tingling or itchy sensation in the mouth
- Swelling of the throat and vocal cords, face, tongue, lip, eyes, hands, feet, or other parts of the body
- Vomiting and/or diarrhea
- Abdominal Pain
- Coughing or wheezing
- Dizziness and/or lightheadedness
- Difficulty breathing
- Loss of consciousness

**CALL 911 if someone presents with symptoms of an allergic reaction**





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# Preventing Cross-Contact of Allergens

- Check the recipe and ingredient labels to confirm that the allergen is not present
- Wash, rinse, and sanitize food contact surfaces, food prep surfaces, and equipment before prepping the food
- Wash your hands and change your gloves before prepping food.
- Assist consumer in making informed decisions.
- Use separate cooking equipment and cooking oils when frying food for persons with a food allergy.
- Label food packages that are sold on-site with a complete list of ingredients and name all the major allergens on the label.
- Notify customer of allergen presence or possibility of exposure.



Food package labels should include:

- 1) Common name
- 2) List of ingredients in order of predominance
- 3) Major allergens contained in the ingredients
- 4) Name/Place of producer or packer
- 5) Made on, Sell by, or Expiration Date
- 6) Quantity or weigh statement

\*No health claims (i.e. “Gluten Free”, “Sugar Free”, “Fat Free”)



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# Label Example

## Snickerdoodle Cookies

Ingredients: All-purpose Flour, Sugar, Butter, Shortening, Eggs, Cream of Tartar,  
Baking Soda, Salt, Ground Cinnamon

Contains: Eggs, Milk, and Wheat.

Made in a home that contains Peanuts and Tree Nuts.

Made by: FRG Leader Jones

192<sup>nd</sup> Tank Battalion Road

Fort Knox, KY 42701

This product was home produced and processed.

Made on March 22, 2018

Size: 6 count





# Got questions?



Questions?

Thank you for your time

- Contact Veterinary Food Inspection for approval of food sources at 502-624-4749.
- After approval of food sources, contact EH for final approval of food operations.
- Please have Food Handler Certificates (copy is ok) available for review for all food handlers.
- Contact Environmental Health Services at (502) 624-6024/5343 for additional information.