FOOD HANDLER'S SAFETY COURSE

All food service operations are subject to periodic inspection by Department of Preventive Medicine inspectors.

The following guidelines are put out by the Department of Preventive Medicine IAW TB Med 530, Occupational and Environmental Health Food Service Sanitation, to all units or organizations engaged in the temporary sale of food items as a fund raising event on Fort Polk.

Point of contact is Lenoir Ross at 531-3402 or SGT Tripeaux at 653-3568.

FOOD BORNE ILLNESS

- Often presents itself as flu-like symptoms such as nausea, vomiting, diarrhea, or fever, so many people may not recognize the illness is caused by bacteria or other pathogens in food.

- Bacteria that cause disease are called pathogens. When certain pathogens enter the food supply, they can cause food borne illness. Millions of cases of food borne illness occur each year. Most cases of food borne illness can be prevented. Proper cooking or processing of food destroys bacteria.

HIGHLY SUSCEPTIBLE POPULATIONS

- Toddlers
- Pregnant women
- Elderly people
- People with compromised immune systems

Medications, antibiotics, antacids, and immuno-suppressive drugs, reduce ability to fight off new infections. Some people may become ill after ingesting only a few harmful bacteria; others may remain symptom free after ingesting thousands. . For this reason it is important that volunteers be especially careful when preparing and serving food to large groups.

EIGHT LEADING CAUSES OF FOOD BORNE ILLNESS

- Cross-contamination
- Inadequate re-heating of potentially hazardous foods.
- Foods left in the temperature danger zone (TDZ) too long.
- Raw, contaminated ingredients used without further cooking.
- Foods prepared too far in advance.
- Infected food handlers and poor work habits.
- Failure to properly heat or cook food.
- Failure to properly cool food

IN CASE OF SUSPECTED FOOD BORNE ILLNESS

- Preserve the evidence.
  - If a portion of the suspect food is available, wrap it securely, mark "DANGER," and freeze it.
  - Save all the packaging materials, such as cans or cartons.
  - Write down the food type, the date, other identifying marks on the package, the time consumed, and when the onset of symptoms occurred. Save any identical unopened products.
- Seek treatment as necessary.
  - If the victim is in an "at risk" group, seek medical care immediately. Likewise, if symptoms persist or are severe (such as bloody diarrhea, excessive nausea and vomiting, or high temperature), call your doctor.
- Call the local health department if the suspect food was served at a large gathering, from a restaurant or other foodservice facility, or if it is a commercial product.

BEFORE YOU BEGIN

- Make sure you have the right equipment, including cutting boards, utensils, food thermometers, cookware, shallow containers for storage, soap, and paper towels.
- For outdoor events, make sure you have a source of clean water. If none is available at the site, bring water for cleaning of hands, utensils, and food thermometers.
- Develop a plan for transporting equipment for cleanup after the event. Plan ahead to ensure that there will be adequate storage space in the refrigerator and freezer.
- Obtain all foods from approved commercial sources. These include Wal-Mart, Sam's, and the commissary.
- Home canned products are forbidden.
- Do not purchase canned goods that are dented, cracked, or bulging. These are the warning signs that dangerous bacteria may be growing in the can.

PROPER ATTIRE

- Clean Clothes
- Hair restraints
  - such as a hat or hair net must be utilized by all food handlers
  - workers with no hair, a hat must be worn to catch perspiration
  - Personnel with beard must wear a beard restraint
- Authorized Jewelry
  - A plain, smooth wedding band
  - Medical alert bracelet or necklace ONLY
  - supervisors not actively engaged in food preparation may wear a watch.
- Fingernails
  - must not extend beyond the fleshy tip of the finger
  - must be neatly trimmed and smooth.
  - False fingernails, fingernail adornments, and fingernail polish are not authorized

FIGHT BAC!

When preparing for your special event, remember that there may be an invisible enemy ready to strike. It's called BAC (bacteria)and it can make you sick. By following four simple steps, you have the power to Fight BAC! and keep your food safe.

- **Clean**—Wash hands and surfaces often.
- **Separate**—Don't Cross Contaminate.
- **Cook**—Cook to proper temperatures.
- **Chill**—Refrigerate promptly.

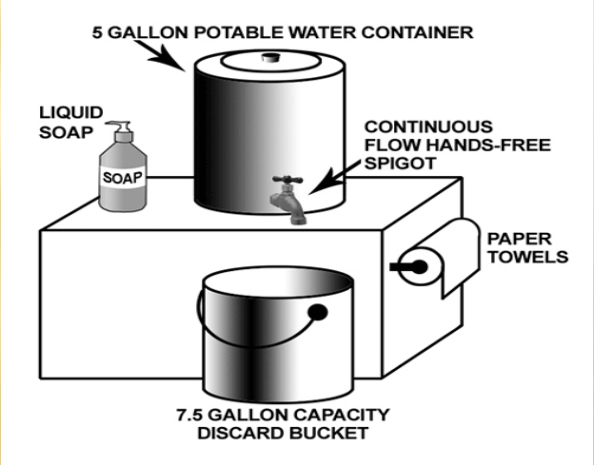
CLEAN

- Wash hands and surfaces often. Bacteria can be spread throughout the kitchen and get onto cutting boards, utensils, and counter tops.
- Hands must be washed prior to serving/preparing food, between food handling tasks, before dawning gloves, between glove changes , after a break, smoking, using the restroom, applying make-up, and touching unclean body parts. When in doubt, wash your hands.
- Reusable wiping cloths may be used only if stored in sanitizing solution.
- Food contact surfaces, (food service equipment and utensils) must be properly cleaned and sanitized
  - three-compartment sink
  - Dishwasher
  - Clean-in-place method

PROPER HAND WASHING PROCEDURES

- WET HANDS WITH WARM, RUNNING WATER
- ADD SOAP, RUB HANDS TOGETHER FOR AT LEAST 20 SECONDS (FRONT, BACK, BETWEEN FINGERS, AND UNDER NAILS)
- RINSE HANDS WELL
- DRY HANDS WITH PAPER TOWEL AND TURN WATER OFF WITH THE PAPER TOWEL

You must have a place nearby to wash your hands. You also will need these supplies: Soap, paper towels, and trash can with lid.



SINGLE USE GLOVES

- Must be used when handling ready-to-eat foods.
- Will be used for only one task such as working with ready-to-eat food or with raw animal food
- Will be discarded when damaged or soiled, or when interruptions occur in the operation.
- DO NOT BLOW on the gloves. Remember, your mouth has many bacteria.

GENERAL SANITATION

WIPING CLOTHS

- Store in a bucket with sanitizing solution when not in use.
- Use for one purpose only unless washed and sanitized.
- Replace the sanitizing solution when it becomes cloudy
- One Tablespoon (TBSP) of bleach per two gallons of water or one teaspoon of bleach per one quart of water.

THREE COMPARTMENT SINK

- Two tablespoons (tbsp) bleach per 4 gallons of water.
- Use one to wash dishes, one to rinse, and one to sanitize. When using bleach water should be at 75 degrees and 100ppm.
- Air dry completely.
- Store cups and bowls inverted.
- When sanitizing items must be immersed for a minimum of 30 seconds.

CROSS-CONTAMINATION

The transfer of a harmful substance from one food to another by direct or indirect contact.

Indirect cross-contamination involves the transfer of a harmful agent to foods by hands, utensils, or equipment.

- example of indirect contact: raw chicken prepared with a knife and cutting board and knife and cutting board are not cleaned and sanitized after use

Direct cross-contamination involves the transfer of a harmful agent from raw foods to cooked or ready-to-eat foods

- example of direct contact: blood from thawing ground beef dripping onto fresh produce stored on a shelf below

SEPERATE

PRINCIPLES TO PREVENTING CROSS CONTAMINATION:

- Arrange raw PHF's by cooking temperature
  - lower cooking temperatures-top
  - higher cooking temperatures-bottom
- Store ready-to-eat food and cooked foods separately or above raw PHF's
- Prepare each type of food at different times or in separate areas
- Clean and sanitize equipment and utensils properly
- Store food in packages, covered containers, or wrappings
- Clean hermetically sealed containers before opening
- Protect food containers that are received packaged together in a case
- Separate fruits and vegetables from ready-to-eat food before they are washed.

CUTTING BOARDS

- Always use a clean cutting board.
- Use one cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- Replace when they become excessively worn or develop hard-to-clean grooves

TEMPERATURE DANGER ZONE

- Bacteria multiply rapidly between 40 and 140°F.
- To keep food out of this "danger zone," keep cold food at or below 40°F and hot food at or above 140°F.
- Keep food cold in the refrigerator, in coolers, or on the service line on ice.
- Keep hot food in the oven, in heated chafing dishes, or in preheated steam tables, warming trays and/or slow cookers.

POTENTIALLY HAZARDOUS FOODS (PHF'S).

PHF's are foods that require temperature control because they are in a form capable of supporting the rapid and progressive growth of bacteria. PHFs that have been maintained at unsafe product temperatures (i.e., Temperature Danger Zone) for greater than **four hours** cumulative time **(FROM PREPARATION TO SERVING)** will be discarded as food waste.

Examples:

- Hamburgers
- Cooked Rice
- Tacos
- Cooked Potatoes
- Hotdogs
- Cooked Beans
- Spaghetti
- Cut Melons
- Chili
- Chicken sandwiches
- Sprouts
- Cooked plant food (fruits and vegetables)
- Unpasteurized juices

NON-POTENTIALLY HAZARDOUS FOOD

- Cookies
- Breads
- Cakes
- Potato chips
- Popcorn
- Cotton candy
- Candy bars
- Pasteurized juice
- Brewed coffee and tea

THAWING FOOD

Approved Methods for Thawing Food

- In a refrigeration unit (most preferred method)
- Part of the conventional cooking process
- In a microwave
  - must be immediately transferred to a conventional cooking process; no time delay between steps
- In a sink
  - With running water at 70 ^{o}F or less.
  - water at a pressure strong enough to agitate loose particles
  - constant turnover of water during this process
  - PHF should be kept in its original wrapper if possible

NEVER DEFROST FOOD AT ROOM TEMPERATURE.

COOK

Batch preparation and progressive cooking will reduce the potential hazard of violating time and temperature standards. Use a food thermometer to check the internal temperature of meat, poultry, casseroles, and other food. **SANITIZE THERMOMETER BEFORE AND AFTER EACH USE.** Check temperature in several places to be sure the food is evenly heated.

Minimum Time and Temperature Requirements

- 145 °F (63 °C) or above for 15 sec
  - raw shell eggs for immediate service
  - Fish & seafood
  - Beef, veal, lamb, muttonselect commercially raised game animals
- 155 °F (68 °C) for 15 seconds
  - pork and certain exotic game animals
  - comminuted fish/meats/game animals, injected meats, eggs not for immediate service
- 165 °F (74 °C) or above for 15 sec
  - Poultry & certain wild game animals
  - stuffed fish/meat/pasta or stuffing w/ fish/meat/poultry
  - Stuffing/dressing cooked separately

TYPES OF THERMOMETERS

- **Oven-safe—insert 2 to 2 1/2 inches deep in the thickest part of the food**, at the beginning of the cooking time. It remains there throughout cooking and is not appropriate for thin food.

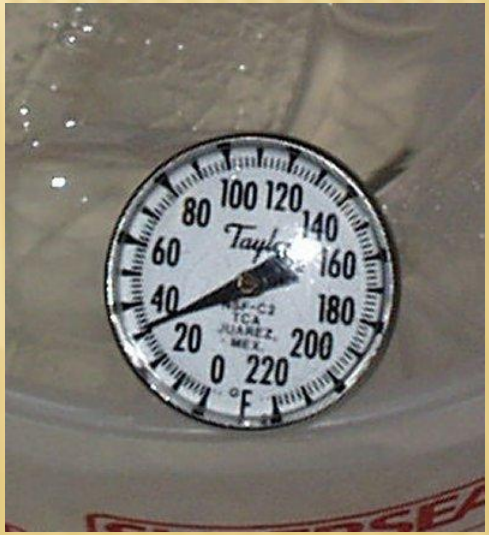
- **Dial instant-read—not designed to stay in the food during cooking.** Insert probe the full length of the sensing area, usually 2 to 2 1/2 inches. If measuring the temperature of thin food, such as a hamburger patty or boneless chicken breast, insert probe sideways with the sensing device in the center. About 15 to 20 seconds are required for the temperature to be accurately displayed.

- **Digital instant-read—not designed to stay i*n food during cooking. The*** heat sensing device is in the tip of the probe. Place the tip of the probe in the center of the thickest part of the food, at least 1/2 inch deep. About 10 seconds are required for the temperature to be accurately displayed

CALIBRATE THERMOMETERS

ICE Point Method

- Fill insulated container with ice
- Add water to the rim
- Cover top with plastic wrap
- Press through the plastic until the entire stem is submerged
- Wait until the temperature reading stabilizes
- Should yield a reading of 32 $\pm 2^{o}$f



EQUIPMENT THERMOMETERS

- Each piece of equipment used for hot or cold food storage and holding is required to have a thermometer.
- Thermometers should be placed closest to the door of each unit to indicate the warmest reading for cold storage and the coolest reading for hot holding.
- Unauthorized thermometers include mercury, glass, and zone type

CHILL

Cooked PHF's must be cooled within 2 hours, from 140°F to 70°F and within 4 hours from 70°F to 40°F (6 hours total time)

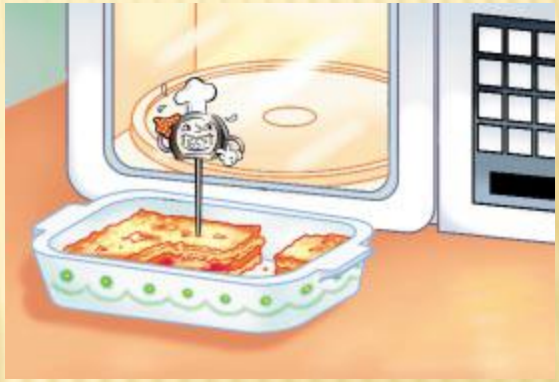
- Don't overfill the refrigerator. Cool air must circulate to keep food safe.
- Divide food and place in shallow containers; to cool quickly, place in ice water bath and stir.
- Use containers that facilitate heat transfer
- Add ice as an ingredient
- With stuffed meats, remove the stuffing and refrigerate it in a separate container
- Cover and label cooked foods. Include the preparation date on the label.

DO NOT USE COOLERS TO COOL HOT FOODS

REHEAT

Foods that have been cooked ahead and cooled should be reheated to at least 165°F. Reheat leftovers thoroughly to at least 165°F.

Reheating for hot holding shall be done rapidly, and the time the food is between the temperatures of 40°F and 165°F may not exceed 2 hours.



Recommended

- **On Stove Top—Place food in pan and heat thoroughly.** The food should reach at least 165 °F on a food thermometer when done.
- **In Oven—Place food in oven set no lower than 325 °F.** Use a food thermometer to check the internal temperature of the food.
- **In Microwave—Stir, cover, and rotate fully cooked food for even heating**. Heat food until it reaches at least 165 °F throughout.

Not Recommended

In Slow Cooker, Steam Tables or Chafing Dishes—Reheating leftovers in slow cookers, steam tables or chafing dishes not recommended because foods may stay in the "danger zone," between 40 and 140 °F, too long. Bacteria multiply rapidly at these temperatures.

TRANSPORT & HOT/COLD HOLDING

TRANSPORT

- Place cold food in cooler with a cold source such as ice or commercial freezing gels.
- Hot food should be kept hot, at or above 140 °F .Wrap well and place in an insulated container.
- DO NOT TRANSPORT FROZEN FOOD OR REFRIGATORED FOOD ITEMS in THE TRUNK OF YOUR VECHILES.

HOT HOLDING

- Maintain food at 140 °F or above
- Stir frequently
- Cover or protect container
- Food should be over 140 °F prior to placing in holding units

COLD HOLDING

- Maintain food temperature at 40 °F or below
- Cover or protect containers
- Food like chicken salad and desserts in individual serving dishes can also be placed directly on ice, or in a shallow container set in a deep pan filled with ice. Drain off water as ice melts and replace ice frequently

Spot check the internal temperature of PHFs of both hot and cold holding with thermometers.

FOOD STORAGE

Food must be protected from contamination by storing it:

- In a clean, dry location where it is not exposed to splash, dust, or other contamination.
- At least 6 in above the floor.
- Pressurized beverage containers, cased food in waterproof containers (bottles or cans), and milk containers in plastic crates may be stored on a floor but it is NOT RECOMMENDED.

NOT AUTHORIZED

BAKED GOODS

- Pastry items such as cookies, cakes and brownies will be individually wrapped and marked with date and time of preparation.
- Sale of cream filled pastries are prohibited.
- A placard or information sheet must be displayed, letting customers know the sale items are home baked (in a kitchen not inspected by Preventive Medicine, Environ-mental Health) and whether any of the baked goods being sold have peanuts, peanut butter or peanut oil in them.

ICE

- Ice may not be used as food after use as a medium for cooling the exterior surfaces of food, packaged foods, or cooling coils and tubes of equipment.
- Packaged food may not be stored in direct contact with ice or water if subject to the entry of water.
- Generally, unpackaged food may not be stored in direct contact with un drained ice.
- Whole, raw fruits or vegetables; cut, raw vegetables (such as celery or carrot sticks or cut potatoes); and tofu may be immersed in ice or water.

WHEN YOU SERVE FOOD

Food may not contact surfaces of equipment and utensils that are not cleaned and sanitized .

- Always use utensils when handling food or ice
- Handle serving utensils by handles
- Store serving utensils in the food with handles above the top of the food and container, or on a clean portion of the food preparation table or cooking equipment,.
- Do not touch food contact surfaces of plates, bowls, spoon, forks, etc.

GENERAL STRUCTURAL REQUIREMENTS

- The walls and ceiling of all FOOD preparation, storage, and handling areas of *TEMPORYARY FOOD ESTABLISHMENTS WILL be constructed of wood, canvas, or other material and fine mesh fly screen (16 mesh per inch or greater) to effectively protect the FOOD service area from the weather and other elements, such as dust, debris, and insect entry .*

- All openings into the *TEMPORYARY FOOD ESTABLISHMENTS WILL be equipped with Tight-fitting closures, air curtains, or other APPROVED methods to restrict entry of flying Insects.*

- Facilities wherein all FOOD and BEVERAGE is prepackaged at a fixed APPROVED FOOD ESTABLISHMENT may be exempt from complete enclosure.

GARBAGE

- Keep containers covered when not in use.
- Remove and dispose of garbage frequently.