



Family Readiness Group Food Sanitation Training

Fort Sill

Environmental Health

Preventive Medicine Activity

Reynolds Army Community Hospital



Food Sanitation Training

- **WHO:** All unit/organizational food events open to public for consumption must comply.
- **WHAT:** Food Sanitation Training. All participants must attend food sanitation training and present a valid certification card upon request.
- **STEP 1:** Review food sanitation training slides online at: <http://www.sillmwr.com> (This presentation).



Food Sanitation Training

- **STEP 2:** Call 442-3175 or email RACHEnvironmentalHealth@amedd.army.mil to schedule and complete a food sanitation training quiz.
- **WHERE:** Bldg. 2775 Ringgold Rd. Near the Artillery Bowl.
- **WHEN:** Food Sanitation Training certification expires 1 year from date of completion.



Food Sanitation Training

- This presentation applies to FT Sill only.
- This food sanitation training may not be substituted with other DoD installations, commercial restaurants, or County/State food sanitation training.
- This presentation may or may not be recognized as food sanitation training credit outside of FT Sill.



Agenda

Food sanitation Training

- Conditions for microbiological growth (FAT TOM)
- Personal hygiene, hand washing, and attire
- Food handling principles
- Review scenarios
- Further recommendations



Food Safety and Sanitation

Why practice proper food safety and sanitation?

- To prevent customers from sickness or even death due to food poisoning. Improperly prepared, cooked, or served foods will cause food poisoning.

How many cases of food poisoning are there in the USA annually?

- 76 Million (Source: www.cdc.gov)

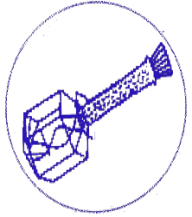


Food Contamination

- Food can become contaminated from chemical, physical or biological sources.
 - **Chemical hazards:** cleaner, polish, lubricants, toxic metals (lead, copper, zinc), pesticide residual from unwashed fruits & vegetables
 - **Physical hazards:** hair, jewelry, fly, a serving utensil that has fallen into the food
 - **Biological hazards:** virus, bacteria, parasite, fungi



Biological Microorganisms



- Some **viruses** are extremely resistant to heat and cold, and can live outside of a host.



- **Parasites** organisms that live on or in a host to survive.



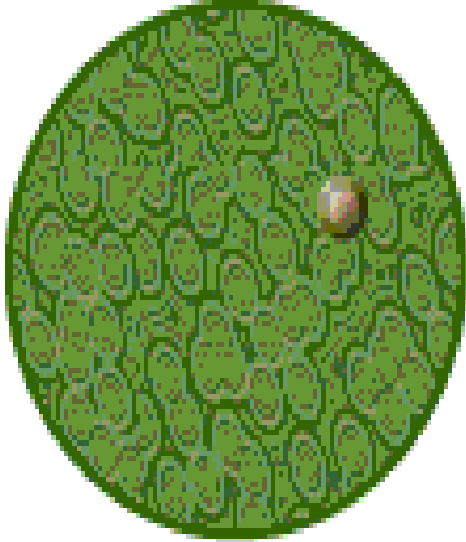
- **Fungi** multicellular organisms often responsible for spoiled food.



- **Bacteria** are single-celled, living organisms that can grow quickly at favorable temperatures.



Bacterial Growth

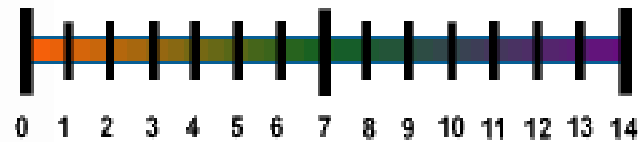
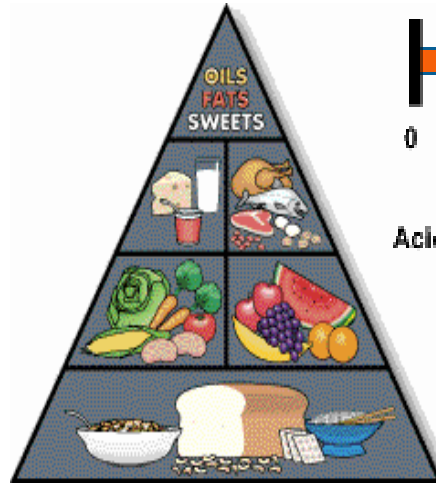


- Under the right conditions, bacteria can double every **10 to 30 minutes**.
- A single bacterium will double with each division—two become four, four become eight, and so on.
- The food temperature danger zone where bacteria grow best is 41°-139°F.



Conditions That Contribute To The Growth of Microorganisms

- **F**OOD
- **A**CIDITY
- **T**IME

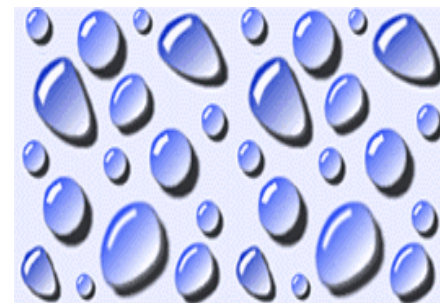
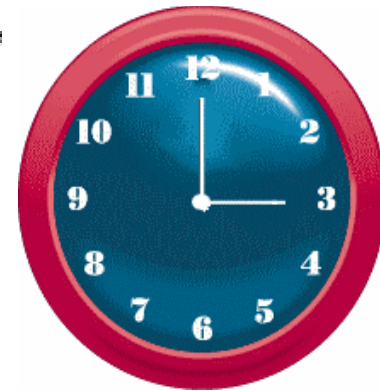
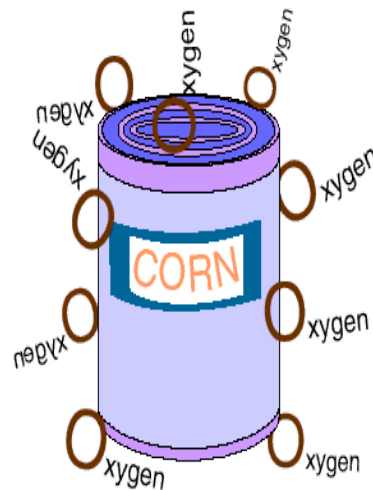


Acid

Neutral

Alkaline
(Base)

- **T**EMPERATURE
- **O**XYGEN
- **M**OISTURE





FAT

- **F is for FOOD**

- Moist, protein-rich foods, such as meat, milk, eggs and fish are potentially hazardous.

- **A is for ACIDITY**

- Bacteria grows best in an environment that is neutral or slightly acidic.

- **T is for TIME**

- When low acid food is abused by placing it in the **DANGER ZONE (40°-140°F)** longer than **four hours**, pathogens multiply rapidly.



TOM

- **T is for TEMPERATURE**
 - Microorganisms grow fast between the temperatures of **40° and 140°F**.
- **O is for OXYGEN**
 - When canned, oxygen is excluded and growth of these organisms is controlled and the food is preserved and does not require refrigeration.
- **M is for MOISTURE**
 - All microorganisms must have an abundant supply of water to grow.



Proper Food handling Attire

Food handlers should:

- A** Wear a clean hat/visor or other hair restraint .
This applies to bald heads to catch perspiration.
- B** Wear clean clothing.
- C** Remove rings, watches, and ear rings.
- D** May wear a clean apron. Remove when leaving food-preparation areas.
- E** Wear clean, closed-toe shoes.

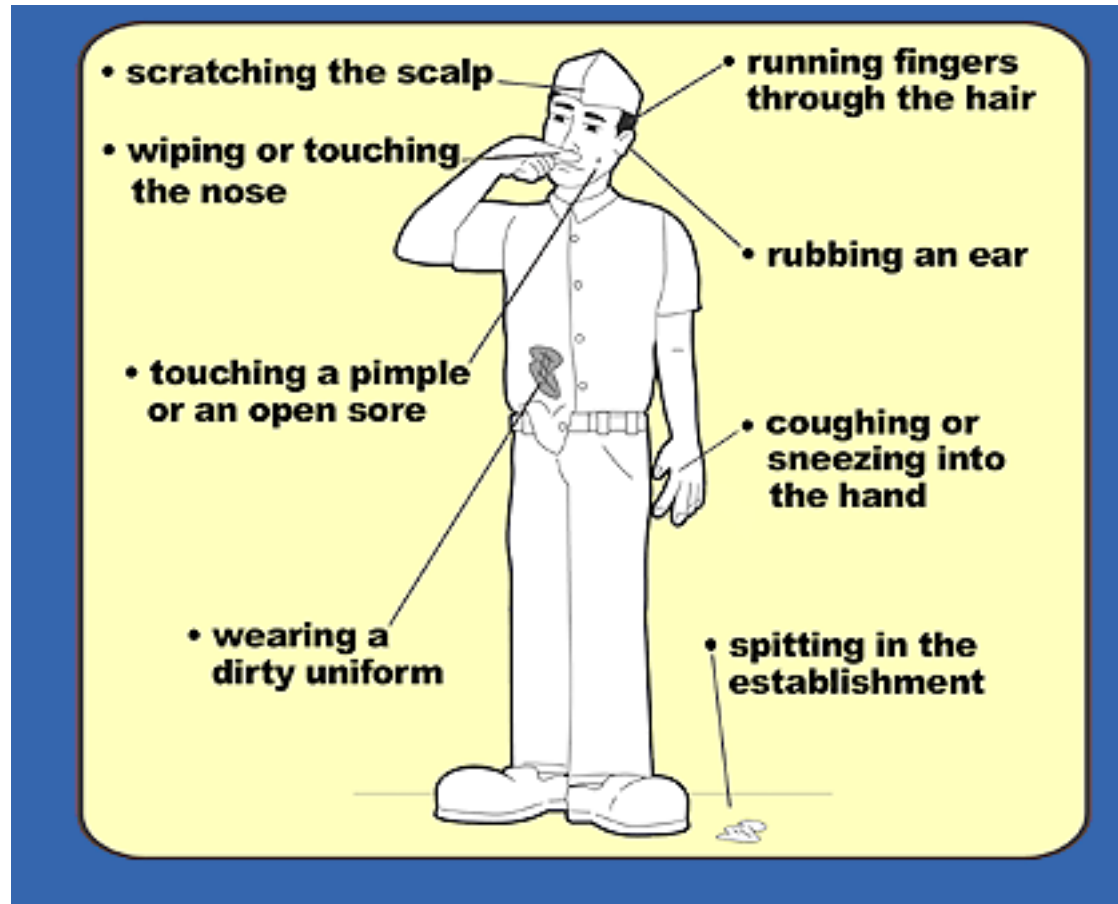
Finger nails- kept trimmed and clean.

Refrain from applying nail polish and artificial nails.





Personal Behaviors That Can Contaminate Food





Proper Hand Washing



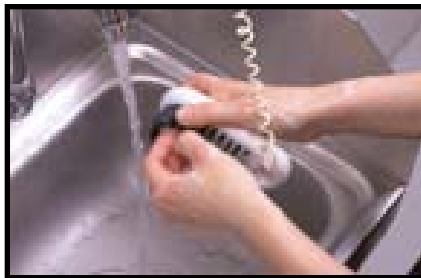
1. Wet hands with running water as hot as you can comfortably stand



2. Apply soap



3. Vigorously scrub hands and arms for at least 20 seconds



4. Clean under fingernails and between fingers



5. Rinse thoroughly under running water



6. Dry hands and arms with a single-use paper towel or warm-air hand dryer



WASH YOUR HANDS!

- ✓ **C**oughing, sneezing, or using a tissue
- ✓ **L**eaving the garbage area
- ✓ **E**ngaging in any other work
- ✓ **A**fter eating, drinking, smoking
- ✓ **N**ose Touching



- ✓ **H**andling raw food and prior to handling ready-to-eat food
- ✓ **A**fter using the restroom
- ✓ **N**ew tasks other than handling food
- ✓ **D**isposing of mop water
- ✓ **S**craping or cleaning food or soil from equipment

HAND SANITIZER IS NOT A SUBSTITUTE FOR SOAP AND WATER!



Gloves

- Single-use gloves are **not** required and do not constitute as a substitute for hand washing. **Exception:** Food handlers with cuts/bandages must wear gloves.
- Remove your gloves anytime you leave the immediate cooking and serving area.
- Change your gloves and wash your hands anytime you proceed to a new cooking or serving task.
- Immediately replace gloves that become torn, soiled, or contaminated.



Hand Washing Station

- Field Expedient Solution
 - Utilize an insulated container with a dispensing spigot for holding hot water 110°F throughout the event. (Catch basin may be necessary to prevent mud hole).
 - Label designated container for hand washing only.
 - Utilize hand soap (bar or liquid) not dish detergent for hand washing.
 - Provide disposable paper towels for drying hands and lidded trash can.



Food Handling Principles

When it comes to food safety

YOU

control these points...

- Purchasing
- Storage
- Preparation
- Cooking
- Serving
- Cleaning



Purchasing

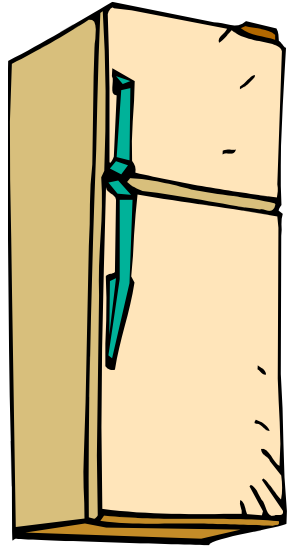


Buy cold food last...
Get it home fast!

- Recommend purchasing food from on Post Commissary.
- Follow all printed manufacture “sell-by” or expiration date.
- Purchase meat and poultry products last.
- Keep packages of raw meat and poultry separate from other foods.



Storing



Don't wait...
Refrigerate!

- Refrigerate or freeze meat and dairy products immediately after purchase.
- Unthaw frozen meat in the refrigerator on the lowest shelf so other food doesn't become contaminated from juices.
- Catch raw juices in a plastic bag or plate.
- Store all dry food products in a cool, clean, dry place. Keep off the ground.



Preparing



Keep it straight...
Don't cross-contaminate!

- First wash your hands before you do anything else.
- Prewash counter tops, cutting boards, knives, and cooking equipment with soapy water and then again after each use.
- Wash all fruits and vegetables including all melons, potatoes, and lettuce heads. Then peel removable skins.
- Measure out needed cold temperature ingredients and return container to refrigeration.



Cooking



Cook it well...
or time will tell!

- Cook food thoroughly. Cook all meat first before adding further ingredients. If harmful bacteria are present, only thorough cooking will destroy them.
- **Use a thermometer** to determine if your meat, poultry, or casserole has reached a safe internal temperature.
- Avoid interrupted cooking. **Never partially cook products** to later finish them on the grill or in the oven.
- When microwaving foods, use microwave-safe containers. Cover and rotate by stirring halfway through designated cooking time.



Safe Cooking Temperatures:



<u>FOOD</u>	<u>TEMPERATURE (°F)</u>
FISH	145
PORK, BEEF, VEAL, LAMB: STEAKS/CHOPS & ROASTS	145
INJECTED MEATS: HAMS/ROASTS & STEAKS	155
GROUND MEATS	155
DISHES COMBINING RAW AND COOKED FOOD	165
POULTRY, EGGS	165



Serving



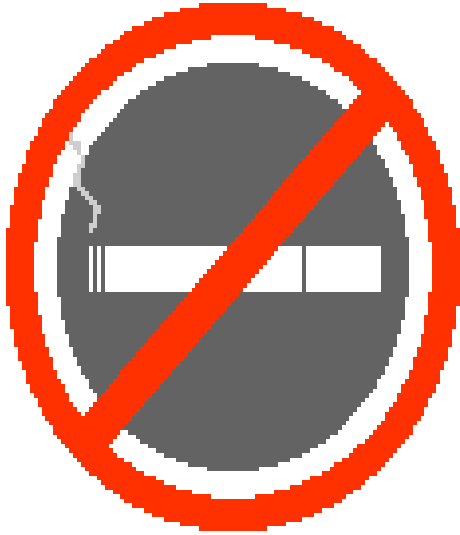
Keep hot foods
hot...
Cold foods cold!

- Wash hands with soap and water before serving food(s).
- Never leave raw or cooked foods at room temperature any longer than necessary—**NEVER** longer than 4 hours.
- Keep hot foods above 140°F (60°C) and cold foods below 40°F (4°C). Use container lids to help maintain temperature.
- Protect single use utensils, plates, and cups from unclean surfaces. Invert such products to protect food surfaces.



Safe Serving Tips

- **NO tobacco products, eating or drinking** in the food preparation, cooking, or service areas.
- Cover or individually wrap pastry items (cake, cookies, brownies, etc.)
- Serve condiments from individual packets or closed, chilled containers.
- Cleanup spills immediately to prevent further food contamination and attract insects.
- Have a designated person to handle money only.





Cleaning Surfaces and Equipment



- Use a food service disinfectant or a mixture of bleach and water to sanitize surfaces (**4 tsp** bleach per gallon of water for a **100 ppm** solution).
- Thoroughly clean and sanitize equipment and food contact surfaces after each use or any interruption in service.
- Recommend paper towels to wipe surfaces rather than sponges or cloth towels that can harbor bacteria.



Scenario-Cross Contamination

Joe just got back from break without washing his hands, prepares a customer's sandwich without using any serving utensils, takes their money and goes back to the grill to turn his hamburgers. How could Joe have cross contaminated his customer's food?

- 1. First he should have washed his hands upon returning from break.**
- 2. Use only a clean surface to touch customer's food with (obtain clean serving utensils).**
- 3. Wash his hands again after handling money prior to turning the hamburgers.**



Scenario- Poor Sanitation Habit

Your assistant arrives to help with the unit's bake sale. They are complaining of a sore throat and a nagging cough. Not to worry, they have brought their 12 year old daughter to help serve food. Is this a problem?

YES- Children too must follow proper food sanitation. They should not be allowed to serve or cook food without such training. Children must be responsible enough to work around kitchen areas safely. The sick parent should have stayed home.



Scenario-Temperature Abuse

Your FRG decides to sell egg burritos. The burritos are prepared at home with pasteurized egg batter, precooked sausage, and various other vegetable toppings. The burritos are wrapped in aluminum foil and placed into an insulated container without further temperature control while the event is held outdoors. Is this a problem?

YES- Hot food must be held at or above 140° F for the entire duration of the event. It is likely that the food will rapidly cool as the insulated container is opened and closed.



Scenario- Time Abuse

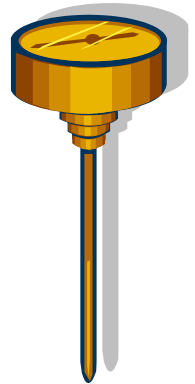
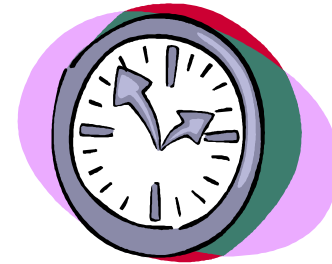
Joe hasn't used any ice for his meat cooler that is storing raw hamburger patties waiting to be cooked. He figures ice is not necessary because the meat is frozen and it will need to thaw anyways. Is this an acceptable food sanitation practice?

No- Frozen and thawed meat must remain under proper temperature control through the duration of storage, cooking, and serving of it. The proper method of thawing meat is under cool running water, in refrigeration, microwaving just prior to cooking, or by simply cooking it. All hot and cold temperature controlled foods must be eaten within 4 hours.



Review

- Practice strict personal hygiene.
- Monitor time and temperature.
- Prevent cross-contamination.
- Clean and sanitize food-contact surfaces, equipment, and utensils.
- Cook food to its required minimum internal temperature or higher.
- Hold potentially hazardous hot food at **140°F** or higher and cold food at **40°F** or lower.





Menu Recommendations

LOW RISK PRODUCTS:

- Precooked meats (burgers, hotdogs, deli meat)
- Pasteurized dairy products
- Egg beaters / powdered eggs
- Canned chili
- Home baked goods- individually wrapped/baggy

HIGH RISK PRODUCTS:

- Fresh eggs
- Raw chicken, pork (brats), beef, fish
- All foods requiring hot/cold temperature control , e.g. potato salad, egg burrito



Menu Recommendations

- Food allergens- May cause mild to severe reactions to certain individuals. Reaction may result from exposure before or after ingestion.
- Common allergens-nuts, egg, dairy, wheat, fish, iodine, melon, animals- cat or dog dander.
- Carefully identify all product ingredients when labeling as “nut free”. Must prevent cross contamination throughout the entire duration of preparing, cooking, and serving.



Unauthorized Food Fundraiser Activities

- Apple bobbing
- Sale of unpasteurized fresh squeezed apple cider
- Sale of homemade jam/jellies, ice-cream
- Use of a deep fryer, smoker or dehydrator
- Wild game animals
- Wild harvested mushrooms and berries
- Sushi and public or private caught fish
- Pie-in-the-face –**whipped cream only**



Other Unauthorized Fund Raisers

- No head shaving or hair coloring.
- No manicures or pedicures.
- No massages.
- No tattoos.



**Please call the Environmental Health
Office at 442-3175 to complete
your food sanitation certification.**

Thank you for your participation and we hope your
next fundraiser is a successful one.