

SAFE FOOD HANDLING

All pathogens reach food by CARRIERS or "hitchhiking" in air, water, soil, animals or insects. The most common carrier is the human being. Humans carry pathogens on their skin, hair, mucous membranes, clothing and jewellery.

Food may contain pathogens when it is purchased ; or it may acquire them during preparation or during storage.

Bacteria are the most common source of food borne disease. In order to multiply bacteria need:

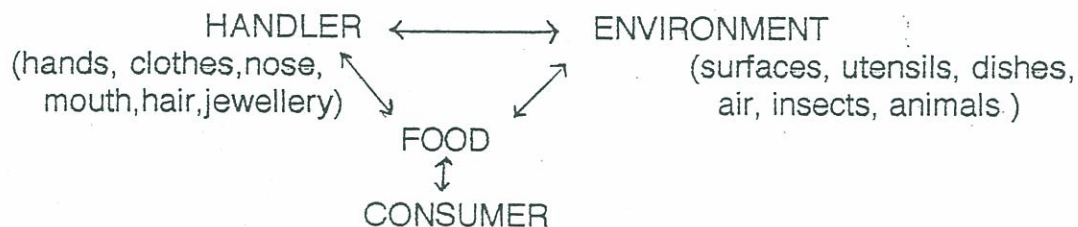
- a) Food - protein provided by the food you are preparing or it's residue on surfaces or utensils.
- b) Warmth - at 4 C (refrigerator temp.) bacteria grow very slowly if at all. At 60 C most bacteria are killed. Between 4 and 60 C bacteria thrive. This is called the "Danger Zone" and food should not be in this temperature range for more than 2 hrs.
- c) Time - The longer the bacteria have to multiply the larger their numbers and the greater the chance that they will cause disease. On average bacteria double every 20 minutes.
- d) Neutral pH - bacteria grow best in neutral pH. Acidic and alkali mediums discourage growth.

There are two types of contamination:

DIRECT CONTAMINATION - Contact between the source eg. raw food, dirty hands or utensils and the food. An example is that meat should be stored on the lowest shelf of the refrigerator so that any juices escaping the wrapping will not fall onto foods that will be served raw , ie. vegetables.

INDIRECT CONTAMINATION - Pathogens are carried from the source to the food via another medium, eg., hands,surfaces and towels.

To prevent contamination of food it is necessary to break the links between the



TO PREVENT BACTERIA GROWTH

1. **CLEAN AS YOU GO.**
 - remove soiled items from possible contact with food.
 - use recommended cleaning materials.
 - clean surfaces immediately.
 - air dry dishes. No teatowels except at final clean up.

2. KEEP HOT FOOD HOT AND COLD FOOD COLD.

- keep hot food above 60 C and cold food below 4 C. Do not allow to remain at room temperature for more than 2 hrs.
- Use shallow pans and stir often when cooling.

3. KEEP FOOD COVERED - don't leave food out where air, animal or insect borne pathogen can contaminate. If you use a cloth to cover, be sure it is a CLEAN cloth.

4. HANDLING FOOD

- Handle as little as possible. Use tongs or serving spoons.
- Gloves sometimes give a false sense of safety. Gloved hands also pass along bacteria.
- Keep raw and cooked foods away from each other and use separate cutting board and utensils.

5. PERSONAL HYGIENE

- The most common carrier of pathogens is the food handler, so personal hygiene is critical! Do not work with food if you are ill. Cover cuts and abrasions with clean dressings and wear disposable gloves. (Cuts and band aids harbour bacteria)
- keep hair away from face and hands and tied back.
- Wash hands using nail brush, wear minimal jewellery.
- clothes should be clean and not get in the way, sleeves rolled up. Wear clean aprons.
- avoid sneezing, coughing or nose blowing near food
- avoid touching face, hair, etc., and then handling food or utensils.

WASH HANDS EVERY TIME YOU CHANGE ACTIVITIES

HAND WASHING

Scrub hands and wrists with soap and nail brush for 20 - 30 seconds minimum, rinse well and either air dry or dry on paper towel. Rubber gloves must be treated as though they were not present, ie. washed as often as hands and as thoroughly.

Potentially safe and unsafe foods. Unsafe foods are high in protein, moist and have neutral pH. Safe foods do not need to be refrigerated.

Safe

butter, oils, canned food, raw or dry fruit, dry cereal, powdered milk, hard cheese, nuts and peanut butter, bread, crackers, cookies, jam, honey, pickles, relish, mustard, raw vegetables.

Unsafe

cooked fruit, raw or cooked meat, gravies and sauces, cooked cereal and rice, milk products, custards and puddings, open cans of meat and fish, dressings, processed meat, and cooked vegetables.

FOOD STORAGE - especially for camp situations.

Coolers - meat should be in separate cooler. (Can be in a separate closed container in the main cooler - Not bags as they leak.)

"Safe" thawing for frozen foods - cold running water, refrigerator or microwave. If foods brought to camp frozen, must be thawed in a cooler, not out in the open for more than one hour, preferable not at all.

Mark and label coolers so that they are not being opened while looking for things in other coolers.

Do not put hot food into fridge or cooler. It raises the temperature of the other foods. Cool rapidly in shallow covered container.

All storage should be 6 inches off the ground/floor.

Canned goods should be stored in a ventilated area away from animals.

Bread and packaged foods should be stored in closed containers.

Containers should be moisture and animal proof.

Keep cleaning supplies well away from food and in original containers and labels.

Cardboard boxes should not be used as they can harbour germs.

MISCELLANEOUS

One use items should be just that. Plastic bags and styrofoam trays, especially meat trays, CANNOT be made food safe. A residue of the original food remains as a source of pathogens.

Use waterless wash for hand cleaning at the lats.

Paper towels and serviettes are safer than cloth. Food safety and environmentally friendly practises are usually in conflict.

Food safe practises are required when food is being prepared for public consumption. Guide functions are "Public" in this definition. Home practises should follow the concepts if not the procedures.

IF YOU SUSPECT FOOD POISONING YOU MUST CALL THE HEALTH DEPARTMENT. UNSAFE FOOD HANDLING THAT CAUSED YOU A TUMMY UPSET CAN KILL SOMEONE ELSE IF NOT CORRECTED.

HAPPY QUARTERMASTERING

Barbara and Sandy