Planning For Carried Meals

Ann A. Hertzler, Retired Extension Specialist, Human Nutrition, Foods and Exercise
Tim Roberts, Extension Specialist, Food Safety

Plan Safety

High protein and high moisture foods are the ones most likely to spoil. The chart shows foods by protein and moisture content. Hot sun and warm or hot rooms can result in unsafe or poor quality food.

Even if foods can be heated at work on a burner, in an oven, or in a microwave, carried meals need cool temperatures until meal time. For food safety and enjoyment, carried meals should be stored away from warm or hot temperatures.

Keep Hot Foods Hot & Cold Foods Cold

### Cool Storage Temperature

- **High Protein/Low Moisture**
  - cheese, peanut butter, powdered milk, dried meat, freeze dried meat, powdered eggs, raisins, nuts, and snack bars
- **High Protein/High Moisture**
  - unopened canned meat and puddings
- **Low Protein/Low Moisture**
  - breads, cereals
- **Low Protein/High Moisture**
  - raw fruit, raw vegetables

### Cold Storage Temperature

- **High Protein/High Moisture**
  - cottage cheese, eggs, fluid milk, meat, chicken, fish, salads, desserts, or mixtures
  - custards or puddings
  - lemon meringue pie
  - deviled eggs
  - meat, fish, egg or chicken salad

### Mayonnaise

Although mayonnaise is often blamed for food poisoning, it seldom causes food poisoning or spoilage. Commercial mayonnaise is mostly vinegar (acid) and oil emulsified by a small amount of egg yolk. The high acid level means that bacteria do not grow in mayonnaise.

Mixing spoons can transfer bacteria into the mayonnaise. Usually the bacteria will live only a short time because of the acid. But if the mayonnaise is soon mixed with other food, this may be long enough to contaminate those foods. The acidity of mayonnaise will not make unsafe food safe to eat. Use safe food handling habits.

Reviewed by Renee Boyer, Extension specialist, Food Science and Technology
Safe Work Habits

Bacteria can be carried by food, by skin, nose, or throat, by pets, insects and by work surfaces which come in contact with any of these.

1. Clean and Sanitize Kitchen and Equipment

Wash with hot soapy water.

Use a stiff brush for crevices around handles and blades.

Rinse with hot water or sanitize with a bleach solution (1 tsp. bleach per quart of water).

2. Clean Hands

Wash with soap and warm water for at least 20 seconds.

Don’t handle food if your hands have cuts or sores or if you have a cold.

Always wash your hands after handling raw foods, and after using the restroom.

3. Clean Food

Wash fruit and vegetables under cold running water to remove soil, bacteria, and possible pesticide residues. Do not use spoiled food.

Packing the Meal

- Use leftovers for spreads. Save time by making spreads and sandwiches at time of use, instead of first freezing leftovers.
- Line up slices so they are the same size (day old bread is easier to work with).
  - Pack lunches right from the refrigerator.
  - Make fillings and sandwiches the night before so the sandwich is chilled when packed in the carried lunch.
  - To keep food cool, add a can or jar of frozen water or juice.
  - Use butter or margarine instead of mayonnaise if you freeze sandwiches.
- If you carry frozen meals/dinners, pack the meal to keep it frozen until heating time.

Wrappings

Choose wrappings that are moisture- and vapor-proof for:
- sandwiches
- chops
- chicken pieces
- fruit
- vegetables

To avoid soggy bread, carry lettuce and tomato separately to add to the sandwich.

Plastic Containers

Plastic containers save money because they can be used over and over again. They should have a tight seal, be durable, and easily cleaned.

Uses
- salads
- fruit cup
- cereal mixtures

Carried Meals

Vacuum Bottles

Thoroughly clean after use. Have soups, stews, and other main dishes boiling hot when poured into the thermos. Some vacuum containers have a coolant in the top. Freeze the top before adding cool food to the thermos.

HINT: Before adding hot food, heat with scalding water. For cold food, chill with ice cubes.

Lunch Bags and Boxes and Insulated Carriers

Use clean lunch bags. Recycled shopping bags can be infested from insects or food leakage.

Use lunch boxes and insulated carriers that can be easily cleaned.

Coolers

Pack foods cooled from the refrigerator. Add frozen beverages (juices or water) or commercial products that can be frozen. Crushed ice or frozen ice packs can be used to keep the temperature of carried meals below 41°F.

Let the Family Decide Surprises

- planning poems or special themes
- making spreads and wrapping sandwiches
- practicing safety and sanitation