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# Key Food Handling Behaviors to Prevent Foodborne Illness

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## Foodborne Illness

Every year about 30 outbreaks and 90 cases of foodborne illness are reported by the Guam Department of Public Health & Social Services. Sixty percent of cases happen in the home and the majority of cases may go unreported.

Foodborne illness is preventable. To keep your family safe, this brochure provides five recommendations by nationally recognized food safety professionals.

**Causes:** Foodborne illness is caused by consuming foods contaminated with harmful bacteria, viruses, parasites, or toxins as a result of improper handling, preparation, or storage.

**Symptoms:**

- Nausea and vomiting
- Abdominal pain
- Diarrhea
- Fever
- Headache
- Tiredness

Foodborne illness can result in permanent health problems, such as kidney failure or even death, especially for high-risk populations, including those who are young, elderly, pregnant, seriously ill, or have weakened immune systems.

## Definition of Terms

**Cross-contamination:** When pathogens are transferred from one surface or food to another.

**Potentially hazardous foods:** Raw or heat-treated animal or plant foods that support rapid, progressive growth or toxin production of pathogens. Examples include meat, poultry, fish, milk, cut melon, raw sprouts, garlic-and-oil mixtures, and soy-protein foods.

**Ready-to-eat foods:** Foods that are edible without further treatment needed to eliminate or reduce pathogens to a safe level.

**Unsafe temperature:** Temperatures between 40°F and 140°F, often called the "Temperature Danger Zone," which are favorable for the rapid growth of micro-organisms.

**Time-temperature abuse:** When foods are exposed to unsafe temperatures (40°-140°F) long enough to allow the growth of harmful microorganisms, or when foods are not cooked or reheated sufficiently to destroy harmful micro-organisms.

# 5 recommendations to prevent foodborne illnesses

## 1. Practice Good Personal Hygiene

- Use soap and warm running water to wash hands before handling food, especially after using the toilet, changing a baby's diaper, or touching animals.
- If you are ill with diarrhea, do not prepare food for others.
- Properly bandage and glove cuts and burns on hands before handling food.

## 2. Cook Foods Adequately

- Use a thermometer to make sure meat and poultry are cooked to minimum internal temperatures and times. (See yellow chart.)
- Cook fish until flesh is opaque and flakes easily with a fork.
- Cook shellfish until the shell opens and the flesh is opaque.
- For high-risk individuals, heat hot dogs and lunch meats to steaming hot or 165°F before eating.
- Reheat leftovers to 165°F.
- Cook eggs until the yolk is firm. Cook foods containing eggs to 160°F.

## 3. Avoid Cross-Contamination

- Clean food-preparation surfaces with hot soapy water before and after food preparation.
- Wash knives and cutting boards with hot water and soap after contact with raw poultry, meat, or seafood.
- Wash hands with soap and warm running water after handling raw and potentially hazardous foods.
- Keep cooked and ready-to-eat foods separately from raw meat, poultry, seafood, and their juices.
- Use paper towels or clean cloths to wash food preparation surfaces.

## 4. Keep Food at Safe Temperatures

- Keep cold food at or below 40°F and hot food at or above 140°F.
- Do not prepare food more than 4 hours before serving without cooling and reheating to the temperatures above.
- Refrigerate food in shallow containers within 2 hours of preparation.
- Store all potentially hazardous foods at or below 40°F.
- Take only food that can be kept at a safe temperature on outings.
- Keep refrigerator temperature between 35° and 40°F.
- Thaw foods in the refrigerator, in the microwave, or under cold running water.

## 5. Avoid Food from Unsafe Sources

- Drink only pasteurized milk and fruit juices. Consume only cheese and yogurt made from pasteurized milk.
- Use water from a safe water supply for drinking and rinsing fresh produce.
- Thoroughly rinse fresh fruits and vegetables under running water before eating.
- Avoid eating alfalfa and other raw sprouts.
- For high-risk individuals, avoid kelaguen, soft cheese, smoked seafood, and cold deli salads.
- Avoid eating raw or undercooked seafood, such as sashimi.
- Avoid eating foods containing raw eggs or unpasteurized egg ingredients.
- Obtain shellfish from approved sources.

## Minimum Safe Food Temperatures for Cooking

**145°F**
Beef, lamb and veal steaks and roasts (Medium rare: 145°F. Medium: 160°F.)

**160°F**
Ground beef, pork, veal and lamb, pork chops, ribs, roasts, egg dishes

**165°F**
Chicken and turkey whole birds (breast, legs, thighs, and wings), stuffing and casseroles, leftovers

This information is adopted from the "Temperature Rules of Thermy" by the Food Safety & Inspection Service, U.S. Department of Agriculture. www.fsis.usda.gov

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(References continued on back page)