

Extension - Health and Human Sciences

# **Basics of Food Safety**





#### Steps to Keep Food Safe

Did you know that you can't see, smell, or taste harmful bacteria? These types of bacteria may cause illness too! There are four (4) guidelines that you should follow to keep your food safe.

- 1. Clean Wash hands and surfaces often.
- 2. Separate Don't crosscontaminate.
- 3. Cook Cook to proper temperatures, checking your food with a food. thermometer
- 4. Chill Refrigerate promptly.

## What is the temperature "danger zone?"

Bacteria grow most rapidly in the range of temperatures between 40° and 140°F, doubling in number in as little as 20 minutes. This range of temperatures is often called the "Danger Zone." That's why experts advise us to never leave food out of refrigeration over 2 hours! If the temperature is above 90 °F, food should not be left out more than 1 hour. What should you do about cold food if you are traveling? If you are traveling with cold food, bring a cooler packed with plenty of ice, frozen gel packs, or another cold source.



Resource: Food Safety and Inspection Service U.S. Department of Agriculture

#### **Temperatures and Food**

- "Last night I left cooked roast beef on the counter to cool before refrigerating, but fell asleep and discovered it this morning. I immediately put it in the refrigerator. Since the meat is cooked, shouldn't it be safe to eat?" The answer to this question is that the roast beef should be thrown out. Why? Because leaving food out too long at room temperature can cause bacteria (such as Staphylococcus aureus, Salmonella Enteritidis, Escherichia coli) to grow to dangerous levels that can cause illness. Yuck!
- Bacteria exist everywhere in nature. They are in the soil, air, water and the foods we eat. When bacteria have nutrients (food), moisture, time and favorable temperatures, they grow rapidly, increasing in numbers to the point where some can cause illness. Understanding the important role temperature plays in keeping food safe is critical. If we know the temperature at which food has been handled, we can then answer the question, "Is it safe?"

#### **Internal Temperatures**

- Raw meat and poultry should <u>always</u> be cooked to a safe minimum internal temperature. When roasting meat and poultry, use an oven temperature no lower than 325 °F. Use a food thermometer to ensure that meat and poultry have reached a safe minimum internal temperature.
  - Cook all raw beef, pork, lamb, and veal steaks, chops, and roasts to a minimum internal temperature of 145 °F before removing meat from the heat source. For safety and quality, allow meat to rest for at least three minutes before carving or consuming.
  - o Cook all raw ground beef, pork, lamb, and veal to an internal temperature of 160 °F.
  - Cook all poultry to a safe minimum internal temperature of 165 °F.
- If raw meat and poultry have been handled safely, using the above preparation recommendations will make them safe to eat. If raw meats have been mishandled (left in the "Danger Zone" too long), bacteria may grow and produce toxins which can cause foodborne illness. Those toxins that are heat resistant are not destroyed by cooking. Therefore, even though cooked, meat and poultry mishandled in the raw state may not be safe to eat even after proper preparation.

Product	Minimum Internal Temperature & Rest Time
Beef, Pork, Veal & Lamb Steaks, chops, roasts	145 °F & allow to rest for at least 3 minutes
Ground Meats & Eggs	160 °F
All Poultry (breasts, whole bird, legs, thighs, wings, ground poultry, stuffing), Leftovers, & Casseroles	165 °F
Ham, fresh or smoked (uncooked)	145 °F & allow to rest for at least 3 minutes
Fish & Shellfish	145 °F

#### How do I keep my leftovers safe?

 You should cover your leftovers by wrapping them in airtight packaging, or seal them in storage containers. These practices help keep bacteria out, retain moisture, and prevent leftovers from picking up odors from other food in the refrigerator. Immediately refrigerate or freeze the wrapped leftovers for rapid cooling.

#### **Keeping Packed Lunches Safe**

• Whether it's off to school or work, millions of Americans pack their lunch. Food brought from home can be kept safe if it is first handled and cooked properly. Remember all perishable food must be kept cold during your commute! After arriving at school or work, make sure your perishable food is kept cold until you eat it.

### **DID YOU KNOW?**

Leftovers can be kept in the refrigerator for 3 to 4 days or frozen for 3 to 4 months!

#### Slow Cookers - Are they safe?

- Yes, the slow cooker is safe! It cooks foods slowly at a low temperature generally between 170° and 280° F. The low heat helps less expensive, leaner cuts of meat become tender and shrink less. The direct heat from the pot, lengthy cooking, and steam created within the tightly covered container combine to destroy bacteria and make the slow cooker a safe process for cooking foods!
- <u>Always</u> thaw meat or poultry <u>before</u> putting it into a slow cooker. Choose to make foods with a high moisture content such as chili, soup, stew or spaghetti sauce.
- Be sure to read the user manual because many slow cookers have two or more settings. Foods take different times to cook depending upon the setting used. Certainly, foods will cook faster on high than on low. However, for all-day cooking or for less-tender cuts, you may want to use the low setting.
- If possible, turn the cooker on the highest setting for the first hour of cooking time and then to low or the setting called for in your recipe. However, it's safe to cook foods on low the entire time.
- While food is cooking and once it's done, food will stay safe as long as the cooker is turned on.
- Like any time you cook, be sure that your cooking surface, hands, and utensils are clean before you begin!



#### **Prevention - Cleanliness Helps Foodborne Illness**

- Cleanliness is a major factor in preventing foodborne illness. Even with food safety inspection and monitoring at Federal, State, and local government facilities, the consumer's role is to make sure food is handled safely after it is purchased. Everything that touches food should be clean. Here are a few steps you can take to help prevent foodborne illness by safely handing food in your home:
  - Wash your hands often with warm, soapy water for at least 20 seconds.
  - If your hands have any kind of skin abrasion or infection, always use clean disposable gloves. Wash hands (gloved or not) with warm, soapy water.
  - Thoroughly wash all surfaces that come in contact with raw meat, poultry, fish, and eggs with with hot, soapy water before moving on to the next step in food preparation. Consider using paper towels to clean kitchen surfaces. If you use dishcloths, wash them often in the hot cycle of your washing machine. Clean other surfaces, such as faucets and countertops, with hot, soapy water.
  - Don't use the same platter and utensils that held the raw product to serve the cooked product.
    Any bacteria present in the raw meat or juices can contaminate the safely cooked product. Serve cooked products on clean plates, using clean utensils and clean hands.
  - When using a food thermometer, it is important to wash the probe after each use with hot, soapy water before reinserting it into food.
  - When picnicking or cooking outdoors, take plenty of clean utensils. Pack clean, dry, wet and soapy cloths for cleaning surfaces and hands.
  - Keep pets, household cleaners, and other chemicals away from food and surfaces used for food.



Because bacteria are everywhere, cleanliness is a major factor in preventing foodborne illness. By keeping everything clean that comes in contact with food, consumers can be assured they are helping to do their part to Be Food Safe.