

The Centers for Disease Control and Prevention (CDC) estimate that every year about 48 million people in the United States become ill from harmful germs in food; of these, about 3,000 die.

# Food Safety

## What are the signs of illness from food?

- ◆ Diarrhea.
- ◆ Fever.
- ◆ Vomiting.
- ◆ Abdominal cramps.
- ◆ Dehydration.
- ◆ Death.

## How is food handled safely?

- ◆ Start with food shopping strategies.
- ◆ Understand the role of keeping hands, surfaces, and foods clean.
- ◆ Learn proper food storage.
- ◆ Know proper food thawing.
- ◆ Utilize specific preparation techniques.

- ◆ Learn how to use a thermometer.
- ◆ Recognize serving principles.
- ◆ Be prudent when eating out.

## When shopping for food:

- ◆ Visit the refrigerated or frozen section last.
- ◆ Do not buy food if the package is torn, damaged or leaking.
- ◆ Do not buy foods after the “Sell-By” or “Use-By” expiration dates.

**You can't see, smell, or taste harmful bacteria that may cause illness.**

### Clean hands, surfaces, and foods:

- ◆ Wash hands thoroughly with water and soap.
- ◆ Wash hands *before* and *after* handling food, and *after* using the bathroom, changing diapers, or handling pets.
- ◆ Wash cutting boards, dishes, counters, utensils, and hands with hot soapy water after contact with raw meat, poultry, seafood, or unwashed fruits or vegetables.
- ◆ Peel or wash fruits and vegetables thoroughly before eating.



### When storing foods you should:

- ◆ Always refrigerate perishable food within 2 hours (1 hour when the temperature is above 90°F).
- ◆ Cook or freeze fresh poultry, fish, ground meats, and other meats within 2 days.
- ◆ Cook beef, veal, lamb, or pork, within 3 to 5 days.
- ◆ Wrap meat and poultry.
- ◆ Wrap meat in the original package with foil or plastic wrap before freezing.
- ◆ Store low-acid canned food such as meat, poultry, fish, and most vegetables up to 2 to 5 years.
- ◆ Store high-acid canned food such as tomatoes, grapefruit, and pineapples on the shelf for 12 to 18 months.

Check the temperature of your refrigerator and freezer with an appliance thermometer. The refrigerator should be at 40°F or below and the freezer at 0°F or below.

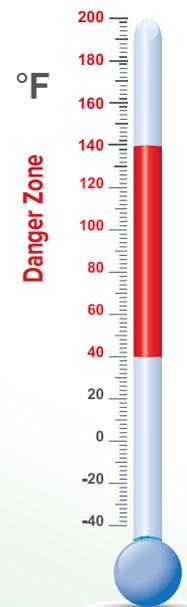
- ◆ Only store cans in good condition, and in a cool, clean, dry place.
- ◆ Discard cans that are dented, leaking, bulging, or rusted.

The U.S. Department of Agriculture, Food and Safety Inspection Service has recommendations and information on refrigerator and freezer food storage. Visit: [www.fsis.usda.gov/factsheets/basics\\_for\\_handling\\_food\\_safely/](http://www.fsis.usda.gov/factsheets/basics_for_handling_food_safely/)

### When thawing food:

- ◆ Thaw in the refrigerator.
  - Make sure thawing meat and poultry are covered. Keep juices from dripping into or touching other food.
  - Refreeze refrigerator-thawed meat and poultry before or after cooking.
- ◆ Use cold water for quick thawing if needed.
  - Place food in a leak-proof plastic bag.
  - Submerge in cold tap water.
  - Change the water every 30 minutes.
  - Cook immediately after thawing.
- ◆ Use a microwave to thaw as needed.
  - Cook food immediately after microwave thawing.

**The Danger Zone is the temperature that germs can grow in food. Keep food below 40°F or above 140°F (4°C and 60°C).**



**Table 1: Safe Minimum Cooking Temperatures**

Category	Food	Temperature (°F)	Rest Time
Ground Meat & Meat Mixtures	Beef, pork, veal, lamb	160	None
	Turkey, chicken	165	None
Fresh Beef, Veal, Lamb	Steaks, roasts, chops	145	3 minutes
Poultry	Chicken & turkey, whole	165	None
	Poultry breasts, roasts	165	None
	Poultry thighs, legs, wings	165	None
	Duck & goose	165	None
	Stuffing (cooked alone or in bird)	165	None
Pork and Ham	Fresh pork	145	3 minutes
	Fresh ham (raw)	145	3 minutes
	Precooked ham (to reheat)	140	None
Eggs & Egg Dishes	Eggs	Cook until yolk and white are firm	None
	Egg dishes	160	None
Leftovers & Casseroles	Leftovers	165	None
	Casseroles	165	None
Seafood	Finfish	145 or cook until flesh is opaque and separates easily with a fork.	None
	Shrimp, lobster, and crabs	Cook until flesh is pearly and opaque.	None
	Clams, oysters, and mussels	Cook until shells open during cooking.	None
	Scallops	Cook until flesh is milky white or opaque and firm	None

\* Table from: Safe Minimum Cooking Temperatures, [www.foodsafety.gov/keep/charts/mintemp.html](http://www.foodsafety.gov/keep/charts/mintemp.html)

### When preparing food:

- ◆ Clean your hands before and after.
- ◆ Keep cutting boards, utensils, and countertops clean. Use hot, soapy water and mix with liquid chlorine bleach (1 tablespoon per 1 gallon of water).
- ◆ Separate raw meat, poultry, and seafood from ready-to-eat foods.
- ◆ Use at least two cutting boards.
  - One for raw meat, poultry, and seafood.
  - One for fresh fruits and vegetables.
- ◆ Don't let "juice" from foods and packaging touch other foods, utensils, or surfaces.
- ◆ Use a clean plate or bowl for cooked food.
- ◆ Never use the same plate or bowl that held the uncooked or raw food. Germs from the raw food could get into the cooked food. Marinate meat and poultry in a covered dish in the refrigerator.



### When using a thermometer:

- ◆ Use a food thermometer to check that meat, poultry, and egg dishes reach a safe temperature. Refer to the chart in **Table 1** or visit: [www.fsis.usda.gov/Is\\_It\\_Done\\_Yet/Brochure\\_Text/index.asp#SMIT](http://www.fsis.usda.gov/Is_It_Done_Yet/Brochure_Text/index.asp#SMIT).
- ◆ Follow the instructions for your food thermometer.
- ◆ Place thermometer in the thickest part of the food, not touching bone, fat, or gristle.
- ◆ Check at the end of the cooking time, but before the food is expected to be "done".
- ◆ Check the temperature in several places to make sure the food is evenly heated.
- ◆ Clean your food thermometer with hot, soapy water before and after each use.
- ◆ Large-dial oven-safe or oven-probe thermometers may be used during cooking.

- ◆ After cooking, allow food to "rest" before cutting or eating. "Rest" times are in **Table 1**.
- ◆ During the rest time, the temperature of the food will stay the same or rise. This will help destroy harmful germs.

### When serving foods:

- ◆ Keep hot food at 140°F or warmer.
- ◆ Keep cold food at 40°F or colder.
- ◆ Keep food hot with chafing dishes, slow cookers, and warming trays during parties.
- ◆ Keep food cold by nesting dishes in bowls of ice or use small serving trays. Replace them often.
- ◆ Don't leave perishable foods out for more than 2 hours at room temperature (1 hour when the temperature is above 90°F).

**2 Hour Rule: Keep hot food hot and cold food cold. If food that has been left out is not eaten within 2 hours, discard it.**

### When eating out:

- ◆ Choose a clean restaurant. Look for health department reports online or posted in the restaurant.
- ◆ Look around you *before* you sit down. If it's not clean think about eating somewhere else.
- ◆ Clean your hands with soap and warm water before eating. If soap and water aren't available, use alcohol hand rub to clean your hands.
- ◆ Pay close attention to the type of food and how it's prepared – harmful germs can be hidden in some foods.

- ◆ Request that your food be cooked completely through – especially meat, poultry, fish, and eggs.
- ◆ Make sure your hot food is piping hot and completely cooked. If lukewarm, send it back.
- ◆ Know that raw or undercooked finfish or shellfish (including oysters, clams, and mussels) are more likely to contain parasites or bacteria than foods made from cooked fish.
- ◆ Refrigerate take-out and “leftover” food within 2 hours after being served. If you will not be home within 2 hours, don't take the leftovers home with you.
- ◆ Bring take-out and “leftover” food directly home after eating out and put your leftovers in the refrigerator as soon as you arrive.
- ◆ Eat delivery food within 2 hours after it arrives. This prevents the growth of harmful germs.

If the food is not going to be eaten within 2 hours, you can keep it hot in the oven – but the temperature must be set at or above 200°F (93°C). Side dishes, like stuffing, must also be kept hot in the oven. Covering food will help keep it moist while you keep it warm. Check with a food thermometer to make sure that the inside of the food is held at a temperature 140°F (60°C).

**Leftover food should be used within 4 days. Reheat leftovers to 165°F.**



### **For more on Food Safety see:**

**Department of Veterans Affairs (VA):**

***What Should I Know About Food Safety?***

[www.hiv.va.gov/patient/diet/food-safety.asp](http://www.hiv.va.gov/patient/diet/food-safety.asp)

**U.S. Department of Agriculture (USDA), Food and Safety Inspection Service:**

***Kitchen Companion; Your Safe Food Handbook***

[www.fsis.usda.gov/PDF/Kitchen\\_Companion.pdf](http://www.fsis.usda.gov/PDF/Kitchen_Companion.pdf)

***Safe Food Handling***

[www.fsis.usda.gov/factsheets/Safe\\_Food\\_Handling\\_Fact\\_Sheets/](http://www.fsis.usda.gov/factsheets/Safe_Food_Handling_Fact_Sheets/)

***Check Your Steps: Food Safe Families***

[www.fsis.usda.gov/Food\\_Safety\\_Education/Check\\_Your\\_Steps/index.asp](http://www.fsis.usda.gov/Food_Safety_Education/Check_Your_Steps/index.asp)

***Cooking Meat? Check the New Recommended Temperatures***

[www.foodsafety.gov/blog/meat\\_temperatures.html](http://www.foodsafety.gov/blog/meat_temperatures.html)

***At Risk Populations***

[www.fsis.usda.gov/factsheets/At\\_Risk\\_&\\_Underserved\\_Fact\\_Sheets/index.asp](http://www.fsis.usda.gov/factsheets/At_Risk_&_Underserved_Fact_Sheets/index.asp)