Food Safety Handle Food Safely

Never had food poisoning?

Perhaps you have, but thought you were sick with the flu. Many thousands of Americans suffer from foodborne illness each year.

Why so many?

At the right temperature, bacteria you can't see, smell, or taste can multiply to the millions in a few short hours. In large numbers, these microorganisms cause illness.

You don't have to get sick.

Some 95 percent of foodborne illness cases could be avoided if people handled and prepared food properly.

When shopping . . . Buy cold food last, get it home fast!

✓ Make grocery shopping your last errand. Select frozen and refrigerated foods last. Take food straight home to the refrigerator and/or freezer. Never leave food in a warm car!

- ✓ Don't buy anything you won't use before the use-by date.
- ✓ Don't buy food in poor condition. Make sure refrigerated food is cold to the touch. Frozen food should be rocksolid. Packaged and canned foods should be intact and undamaged.

When storing food . . . Keep it safe—refrigerate!

- ✓ To help control bacteria, keep your refrigerator as cold as possible without freezing milk or lettuce—generally 40°F. Check the temperature with an appliance thermometer (available at variety or hardware stores).
- ✓ Freeze fresh meat, poultry, or fish immediately if you can't use it within a few days. Keep freezer units at 0° F.
- ✓ Put packages of raw meat, poultry, or fish on a plate and store on the bottom refrigerator shelf so juices won't drip on other food. Raw juices often contain bacteria.
- ✓ When you cook ahead, divide large portions of food into small, shallow containers for safe, rapid cooling.

When preparing food . . .

Keep everything clean! Thaw in refrigerator!

- ✓ Wash hands in hot, soapy water before preparing food and after using the bathroom, changing diapers, and handling pets.
- ✓ Bacteria can live in kitchen towels, sponges, and cloths. Wash them often.
- ✓ Keep raw meat, poultry, and fish and their juices away from other food. For instance, wash your hands, cutting board, and knife in hot, soapy water after cutting up the chicken and before dicing salad ingredients.
- ✓ Use plastic cutting boards rather than wooden ones where bacteria can live protected in the grooves.

✓ Thaw food in the microwave or refrigerator, NOT on the kitchen counter where bacteria can grow in the outer layers of the food before the inside thaws. Marinate in the refrigerator, too.

When cooking . . . Cook thoroughly!

- ✓ Eating raw or partly cooked meat, poultry, fish, or eggs is potentially dangerous. Thorough cooking is needed to kill harmful bacteria that may be present in raw animal products. From a safety standpoint, hamburger that is red in the middle is undercooked.
- ✓ Cook ground beef, lamb, or pork to 160°F. Cook ground turkey or chicken to 165°F. Cook beef or lamb roasts and steaks to at least 145°F. Cook fresh pork roasts and chops to at least 160°F. Cook poultry to 180°F. Use a meat thermometer to check that it's cooked all the way through.
- ✓ For a visual check, red meat is done when it's brown or grey inside. Poultry juices run clear. Fish flakes with a fork.
- ✓ Salmonella—a bacteria that causes food poisoning—can grow inside fresh, unbroken eggs. To avoid problems, cook eggs until the yolk and white are firm, not runny. Scramble eggs to a firm texture. Don't use recipes in which eggs remain raw or only partially cooked. Keep shell eggs refrigerated.

Use microwave carefully!

The microwave is a great timesaver, but it has one food safety disadvantage—it sometimes leaves cold spots in food. Bacteria can survive in these spots.

- ✓ Cover food with a lid or plastic wrap so steam can aid thorough cooking. Wrap should not touch food and should be vented by turning back a corner.
- ✓ For even cooking, stir food and rotate the dish during cooking.
- ✓ Observe the standing time called for in a recipe or package directions. This allows the food to finish cooking.
- ✓ Use the oven temperature probe or a meat thermometer to check that food is done. Insert it in several spots.

When serving . . . Keep hot foods hot and cold foods cold!

- ✓ Never leave perishable food out of the refrigerator over 2 hours! Bacteria that can cause food poisoning grow quickly at warm temperatures.
- ✓ Use clean dishes and utensils, not those used in preparation. Serve grilled food on a clean plate, too—not one that held raw meat, poultry, or fish.
- ✓ Pack lunches in insulated carriers with a cold pack. Caution children never to leave lunches in direct sun or on a warm radiator.
- ✓ Carry picnic food in a cooler with a cold pack. When possible, put the cooler in the shade. Keep the lid on as much as you can.
- ✓ Keep cold party food on ice or bring out small platters from the refrigerator as needed.
- ✓ Divide hot party food into smaller serving platters. Keep platters refrigerated until time to warm them up for serving.

When handling leftovers . . .

Use small containers for quick cooling!

✓ Divide large amounts into small, shallow containers for quick cooling in the refrigerator. Don't pack the refrigerator—cool air must circulate to keep food safe. ✓ Remove stuffing from poultry or other stuffed meats and refrigerate in separate containers.

Reheat thoroughly!

- ✓ Bring sauces, soups, and gravy to a boil. Heat and stir other leftovers to 165°F.
- ✓ Make sure leftovers are heated thoroughly when using the microwave. Use a lid or vented plastic wrap to ensure uniform heating.

When you question food safety . . . If in doubt, throw it out!

- ✓ Never taste food that looks or smells strange to see if you can still use it. Discard it where pets and children cannot reach it.
- ✓ Is it moldy? The poisons that molds can form are found under the surface of the food. Most moldy food should be discarded. Sometimes, hard cheese and salamis and firm fruits and vegetables can be salvaged by cutting out the mold and a large area around it.

Check your freezer

- ✓ Without power, a full upright or chest freezer will keep everything frozen for about 2 days. A half-full freezer will keep food frozen 1 day.
- ✓ If power will be coming back on fairly soon, you can make the food last longer by keeping the door shut as much as possible.
- ✓ If power will be off for an extended period, take food to friends' freezers or a commercial freezer. Dry ice can be used; follow handling directions carefully.

Check your refrigeratorfreezer combination

- ✓ Without power, the refrigerator section will keep food cool 4 to 6 hours, depending on the kitchen temperature.
- ✓ A full, well-functioning freezer unit should keep food frozen for 2 days. A half-full freezer unit should keep things frozen about 1 day.

- ✓ Block ice can keep food on the refrigerator shelves cooler.
- ✓ Dry ice can be added to the freezer unit. You can't touch dry ice and you shouldn't breathe the fumes, so follow handling directions carefully.

Thawed food?

- ✓ Food that still contains ice crystals or that feels refrigerator-cold can be refrozen.
- ✓ Discard any thawed food that has warmed to room temperature and remained there 2 hours or more.
- ✓ Immediately discard anything with a strange color or odor.

When to worry . . . Is it food poisoning?

- ✓ Nausea, vomiting, diarrhea, fever, or cramps can indicate food poisoning. Depending on the illness, symptoms can appear anywhere from 30 minutes to 2 weeks after eating bad food. Most often, though, people get sick within 4 to 48 hours.
- ✓ In more serious cases, food poisoning victims may have nervous system problems like paralysis, double vision, or trouble swallowing or breathing.
- ✓ If symptoms are severe or the victim is very young, old, pregnant, or already ill, call a doctor or go to the hospital right away.

Should you report it?

- ✓ You or your physician should report serious cases of foodborne illness to the local health department.
- ✓ Report any food poisoning incidents if the food involved came from a restaurant or commercial outlet. Give a detailed, but short account of the incident. If the food is a commercial product, have it in hand so you can describe it. If you're asked to keep the food refrigerated so officials can examine it later, follow directions carefully.

Cold storage guidelines
These short but safe time limits will keep refrigerated food from spoiling or becoming dangerous to eat. These time limits will keep frozen food at top quality.

Product	Refrigerator (40° F)	Freezer (0° F)
Eggs		
Fresh, in shell	3 weeks	Don't freeze
Raw yolks, whites	2-4 days	1 year
Hard cooked	1 week	Don't freeze
Liquid pasteurized eggs or		
egg substitutes, opened	3 days	Don't freeze
unopened	10 days	1 year
Mayonnaise, commercial Refrigerate after opening	2 months	Don't freeze
TV Dinners, Frozen Casseroles		
Keep frozen until ready to use		3-4 months
Deli & Vacuum-Packed Products		
Store-prepared (or homemade) egg,		
chicken, tuna, ham, macaroni salads	3-5 days	
Pre-stuffed pork & lamb chops,		
chicken breasts stuffed with dressing	1 day	These products don't
Store-cooked convenience meals	1-2 days	freeze well
Commercial brand vacuum-packed	2 weeks,	
dinners with USDA seal	unopened	
Soups & Stews		
Vegetable or meat-added	3-4 days	2-3 months
Hamburger, Ground & Stew Meats		
Hamburger & stew meats	1-2 days	3-4 months
Ground turkey, veal, pork, lamb	-	
and mixtures of them	1-2 days	3-4 months
Hotdogs & Lunch Meats		
Hotdogs, opened package	1 week	
unopened package	2 weeks	In freezer wrap,
Lunch meats, opened	3-5 days	1-2 months
unopened	2 weeks	
Bacon & Sausage		
Bacon	7 days,	1 month
Sausage, raw from pork, beef, turkey	1-2 days	1-2 months
Smoked breakfast links, patties	7 days	1-2 months
Hard sausage—pepperoni, jerky sticks	2-3 weeks	1-2 months
Ham, Corned Beef		
Corned beef		Drained, wrapped
In pouch with pickling juices	5-7 days	1 month
Ham, canned		
Label says keep refrigerated	6-9 months	Don't freeze
Ham, fully cooked—whole	7 days	1-2 months
Ham, fully cooked—half	3-5 days	1-2 months
Ham, fully cooked—slices	3-4 days	1-2 months

Product	Refrigerator (40° F)	Freezer (0° F)	
Fresh Meat			
Steaks, beef	3-5 days	6-12 months	
Chops, pork	3-5 days	4-6 months	
Chops, lamb	3-5 days	6-9 months	
Roasts, beef	3-5 days	6-12 months	
Roasts, lamb	3-5 days	6-9 months	
Roasts, pork & veal	3-5 days	4-6 months	
Variety meats—tongue, brain			
kidneys, liver, heart, chitterlings	1-2 days	3-4 months	
Meat Leftovers			
Cooked meat and meat dishes	3-4 days	2-3 months	
Gravy and meat broth	1-2 days	2-3 months	
Fresh Poultry			
Chicken or turkey, whole	1-2 days	1 year	
Chicken or turkey pieces	1-2 days	9 months	
Giblets	1-2 days	3-4 months	
Cooked Poultry, Leftovers			
Fried chicken	3-4 days	4 months	
Cooked poultry dishes	3-4 days	4-6 months	
Pieces, plain	3-4 days	4 months	
Pieces covered with broth, gravy	1-2 days	6 months	
Chicken nuggets, patties	1-2 days	1-3 months	

For more information . . .

Check these Web sites.

Iowa State University Extension Food Safety Project: http://www.extension.iastate.edu/foodsafety

Food and Drug Administration Center for Food Safety and Applied Nutrition: http://www.foodsafety.gov

Iowa State University Extension publications: http://www.extension.iastate.edu/Pages/pubs

This publication was adapted from *A Quick Consumer Guide to Safe Food Handling* (H&G 248) by Patricia Redlinger and W. S. LaGrange, former extension food science specialists, and Diane Nelson, extension communication specialist.

IOWA STATE UNIVERSITY University Extension

Helping you become your best.

... and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the U.S. Department of Agriculture. Stanley R. Johnson, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa. 12/00