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PB1420 A Quick Consumer Guide to Safe Food Handling

The University of Tennessee Agricultural Extension Service

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UT Extension
PB1420

A Quick Consumer Guide to Safe Food Handling

This booklet tells you what to do at each step in food handling — from shopping through storing leftovers — to avoid food-borne illness.

Never had food-borne illness? Perhaps you have, but thought you were sick with the flu. Some 76 million Americans could suffer from food-borne illness each year.

Why? Because under the right conditions, bacteria that you can't see, smell or taste can make you sick.

It doesn't have to happen. Many such cases could be avoided if people just handled food properly. So here's what to do...

When You Shop

Buy cold food last; get it home fast.

- When you're out, grocery shop last. Take food straight home to the refrigerator. Never leave food in a hot 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 rock solid. Canned goods should be free of dents, cracks or bulging lids, which can indicate a serious food-safety threat.
- Don't purchase products if the packaging is open, torn, damaged or looks as if it has been tampered with. This includes products on the shelf or in the refrigerator or freezer sections of the grocery store.

When You Store Food

Keep it safe; refrigerate.

Check the temperature of your refrigerator with an appliance thermometer. To keep bacteria in check, the refrigerator should run at 40 degrees F; the freezer unit at 0 degrees F. Keep your refrigerator as cold as possible without freezing milk or lettuce.

- Freeze fresh meat, poultry or fish immediately if you can't use it within a few days.
- Put packages of raw meat, poultry or fish on a plate before refrigerating so their juices won't drip on other food. Raw juices often contain bacteria.

When You Prepare Food

Keep everything clean; thaw in refrigerator.

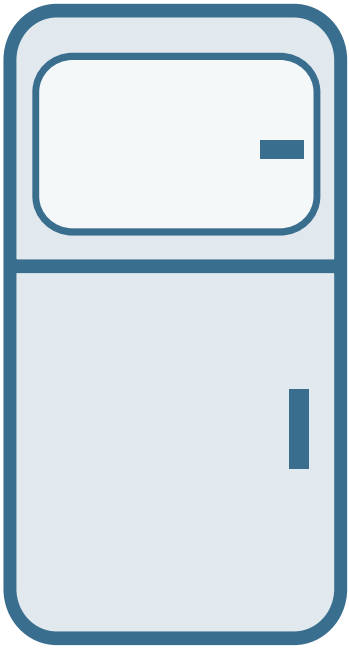
- Wash hands in hot soapy water before preparing food and after using the bathroom, changing diapers and handling pets.

- Harmful bacteria multiply quickly in kitchen towels, sponges and cloths. Wash cloth items often in the hot-cycle in your machine. Consider using paper towels to clean up meat and poultry juices. Avoid sponges or clean them in the dishwasher every couple of days to kill bacteria.

- Keep raw meat, poultry and fish and their juices away from other food. For instance, wash your hands, cutting board, knife and counter tops in hot soapy water after cutting up the chicken and before slicing salad ingredients. Also, wash sink and kitchen faucet handles the raw meat or your "meat-covered" hands have touched with hot, soapy water.

- Use separate cutting boards for meat, poultry and fish and for other foods. Inspect your boards often and dispose of them when they have deep cuts and scratches. Wash boards thoroughly using hot water and soap, or wash them in the dishwasher.

- What about antibacterial sanitizers in the kitchen? Food-handling experts feel hot soapy water, used properly, should protect you adequately against food-borne bacteria. However, kitchen sanitizers (including a mixture of bleach and water) can provide some added protection. NOTE: Sanitizer product directions must be followed carefully, as products differ greatly.



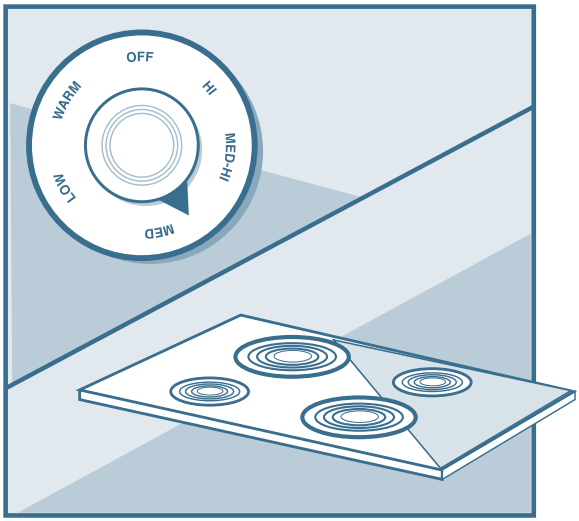
- Thaw frozen food in the refrigerator or in the microwave, NOT on the kitchen counter. Marinate in the refrigerator too.

When You're Cooking

Cook thoroughly.

Food safety experts agree that foods are properly cooked when they are heated for a long enough time and at a high enough temperature to kill the harmful bacteria that cause food-borne illness. To prevent food-borne illness, follow these guidelines:

- Use a clean food thermometer to make sure meat, poultry, casseroles and other foods are properly cooked all the way through.
- Cook roasts and steaks to at least 145 degrees F. Whole poultry should be cooked to 180 degrees; check for doneness in the thigh. Chicken breast should be cooked to 170 degrees.
- Cook ground beef, where bacteria can spread during processing, to at least 160 degrees. Check the temperature with a food thermometer.
- Cook eggs until the yolk and white are firm. Don't use recipes in which eggs remain raw or only partially cooked.
- Fish should be opaque and flake easily with a fork.



Safe Microwaving

A great timesaver, the microwave has one food-safety disadvantage. It sometimes leaves cold spots in food. Bacteria can survive in these spots. So...

- Cover food with a lid or plastic wrap so steam can help food cook. Vent wrap and make sure it doesn't touch food.
- Stir and rotate your food for even cooking. No turntable? Rotate the dish by hand once or twice during cooking.
- Observe the standing time called for in a recipe or package directions. During the standing time, food finishes cooking.
- Use the oven temperature probe or a meat thermometer to check that food is done. Insert it at several spots.

When You Serve Food

Never leave food out more than two hours.

- Use clean dishes and utensils to serve food, not those used in preparation. Serve grilled food on a clean plate too, not one that held raw meat, poultry or fish.
- Never leave perishable food out of the refrigerator more than two hours! (No more than one hour in hot weather.) Bacteria that can cause food-borne illness grow quickly at warm temperatures.
- 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.
- Party time? Keep cold party food on ice or serve small amounts at a time. Keep the rest in the refrigerator to serve as needed.
- Likewise, divide hot party food into smaller serving platters. Keep platters refrigerated until time to warm them up for serving.

When You Handle Leftovers

Use small containers for quick cooling.

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

When You Reheat

- Bring sauces, soups and gravy to a boil. Heat other leftovers thoroughly to 165 degrees F.
- Microwave leftovers using a lid or vented plastic wrap for thorough heating.

Kept It Too Long?

When in doubt, throw it out.

Safe refrigerator and freezer storage time limits are given for many common foods in the "Cold Storage" table in this booklet. But what about something you totally forgot about and may have kept too long?

- Be safe rather than sorry. Just discard it. Some harmful micro-organisms can grow at refrigerator temperatures. Never taste food that looks or smells strange to see if you can still use it.
- Is it moldy? The mold you see is only the tip of the iceberg. The poisons molds can form are found under the surface of the food. So, while you can sometimes save hard cheese, salamis and firm fruits and vegetables by cutting the mold out, most moldy food should be discarded.

Cold Storage		
Refrigerator and Freezer Storage Chart		
Vegetables	Refrigerator (40 degrees F) Raw	Freezer (0 degrees F) Blanched/cooked
Beans, green or waxed	3-4 days	8 months
Carrots	2 weeks	10-12 months
Celery	1-2 weeks	10-12 months
Lettuce, leaf	3-7 days	Don't freeze
Lettuce, iceberg	1-2 days	Don't freeze
Spinach	1-2 days	10-12 months
Squash, summer	4-5 days	10-12 months
Squash, winter	2 weeks	10-12 months
Tomatoes	2-3 days	2 months

Refrigerator and Freezer Storage Chart		
Product	Refrigerator (40 degrees F)	Freezer (0 degrees F)
Eggs		
Fresh, in shell	3-5 weeks	Don't freeze
Hardcooked	1 week	Don't freeze well
Egg substitutes, opened	3 days	Don't freeze
Egg substitutes, unopened	10 days	1 year
Dairy Products		
Milk	1 week	3 months
Cottage cheese	1 week	Doesn't freeze well
Yogurt	1-2 weeks	1-2 months
Deli Foods		
Entrees, cold or hot	3-4 days	2-3 months
Store-prepared or homemade salads	3-5 days	Don't freeze
Hot Dogs & Lunch Meats		
Hotdogs, open package	1 week	
Hotdogs, unopened package	2 weeks	1-2 months in freezer wrap
Lunch meats, opened	3-5 days	1-2 months
Lunch meats, unopened	2 weeks	1-2 months
TV Dinners/Frozen Casseroles		
Keep frozen until ready to serve		3-4 months
Fresh Meat		
Beef-steaks, roasts	3-5 days	6-12 months
Pork-chops, roasts	3-5 days	4-6 months
Lamb-chops, roasts	3-5 days	6-9 months
Veal-roasts	3-5 days	4-6 months
Ground meats	1-2 days	3-4 months

Refrigerator and Freezer Storage Chart		
Fresh Poultry		
Chicken or turkey, whole	1-2 days	1 year
Chicken or turkey pieces	1-2 days	9 months
Fresh Fish		
Lean fish (cod, flounder, etc.)	1-2 days	6 months
Fatty fish (salmon, etc.)	1-2 days	2-3 months
Ham		
Canned ham (label says "keep refrigerated")	6-9 months	Don't freeze
Ham, fully cooked (half & slices)	3-5 days	1-2 months
Bacon & Sausage		
Bacon	1 week	1 month
Sausage, raw (pork, beef or turkey)	1-2 days	1-2 months
Pre-cooked, smoked breakfast links/ patties	1 week	1-2 months
Leftovers		
Cooked meat, meat dishes, egg dishes, soups, stews and vegetables	3-4 days	2-3 months
Gravy and meat broth	1-2 days	2-3 months
Cooked poultry and fish	3-4 days	4-6 months

Fresh Produce

- Raw fruits are safe at room temperature, but after ripening they will mold and rot quickly. For best quality, store ripe fruit in the refrigerator or prepare and freeze. After cooking, fruit must be refrigerated or frozen within two hours.

- Some dense raw vegetables – like potatoes and onions – can be stored at cool room temperatures. Refrigerate other raw vegetables for optimum quality and to prevent rotting. After cooking, vegetables must be refrigerated or frozen within two hours.

Cooking Temperatures

Food	Internal Temperature (degrees F)
Ground Products	
Beef, veal, lamb, pork	160
Chicken, turkey	165
Beef, Veal, Lamb	
Roasts & steaks	
medium-rare	145
medium	160
well-done	170
Pork	
Chops, roast, ribs	
medium	160
well-done	170
Ham, fully cooked	140
Ham, fresh	160
Sausage, fresh	160
Poultry (Turkey & Chicken)	
Whole bird	180
Breast	170
Legs & thighs	180
Stuffing (cooked separately)	165
Eggs	
Fried, poached	yolk & white are firm
Casseroles	160
Sauces, custards	160
Fish	flakes with a fork

*This chart provides guidance for cooking foods at home.

Power's Out

Your Freezer

Without power, a full upright or chest freezer will keep everything frozen for about two days. A half-full freezer will keep food frozen one 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 the power will be off for an extended period, take food to friends' freezers, locate a commercial freezer or use dry ice.

Your Refrigerator-freezer Combination

Without power, the refrigerator section will keep food cool 4-6 hours depending on the kitchen temperature.

A full, well-functioning freezer unit should keep food frozen for two days. A half-full freezer unit should keep things frozen about one 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 shouldn't breathe the fumes, so follow handling instructions carefully.

Thawed Food?

Foods still containing ice crystals or that feels refrigerator cold can be refrozen.

Discard any thawed food that has risen to room temperature and remained there two hours or more. Immediately discard anything with a strange color or odor.

Is It Food-borne Illness?

If you or a family member develop nausea, vomiting, diarrhea, fever or cramps, you could have a food-borne illness. Unfortunately, it's not always easy to tell since, depending on the illness, symptoms can appear anywhere from 30 minutes to two weeks after eating bad food. Most people get sick within four to 48 hours after eating.

In more serious cases of food-borne illness, 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.

When to Report Food-borne Illness

You or your physician should report serious cases of food-borne 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 over the phone.

If you're asked to keep the food refrigerated so officials can examine it later, follow directions carefully.

If you have questions about food safety, contact your local Extension office at:

You can also contact The Food and Drug Administration Hotline with questions about safe handling of seafood, fruits and vegetables, as well as rules that govern food safety in restaurants and grocery stores. You can reach them by calling: 1-888-SAFEFOOD (1-888-723-3366).

The USDA Meat and Poultry Hotline can answer questions about safe handling of meat and poultry as well as many other consumer food issues. Call them at 1-888-mphotline (1-888-674-6854). Or, email your questions to mphotline.fsis@usda.gov.

This publication was adapted from USDA Home and Garden Bulletin No. 248, *A Quick Consumer Guide to Safe Food Handling*, published in 1995 and no longer in print.

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