

SAFE FOOD HANDLING

The food supply in the United States is among the safest in the world. However, when certain disease-causing bacteria or pathogens contaminate food, they can cause foodborne illness, often called "food poisoning".

Know the Symptoms

Consuming dangerous foodborne bacteria will usually cause illness within 1 to 3 days eating the contaminated food. However, sickness can also occur within 20 minutes or up to 6 weeks. Symptoms of foodborne illness can include vomiting, diarrhea, and abdominal pain—and flu-like symptoms, such as fever, headache, and body ache. Although most healthy people will recover from a foodborne illness within a short period of time, some can develop chronic, severe, or even life-threatening health problems. In addition, some people are at a higher risk for developing foodborne illness, including pregnant women, young children, older adults, and people with weakened immune systems (such as transplant patients and individuals with HIV/AIDS, cancer, or diabetes). To keep your family safer from food poisoning, **follow these four simple steps: clean, separate, cook, and chill.**

CLEAN: Wet—Lather—Scrub—Rinse—Dry

- Wash your hands with warm water and soap for at least 20 seconds before and after handling food and after using the bathroom, changing diapers, and handling pets or pet products.
- Wash your cutting boards, dishes, utensils, and counter tops with hot soapy water after preparing each food item.
- Consider using paper towels to clean up kitchen surfaces. If you use cloth towels, launder them often in the hot cycle.
- Rinse fresh fruit and vegetables under running tap water, including those with skins and rinds that are not eaten. Scrub firm produce with a clean produce brush.
- With canned goods, remember to clean lids before opening.

SEPARATE

Separate raw meats from other foods

- Separate raw meat, poultry, seafood, and eggs from other foods in your grocery shopping cart, grocery bags, and refrigerator.

- Use one cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- Never place cooked food on a plate that previously held raw meat, poultry, seafood, or eggs unless the plate has been washed in hot, soapy water.
- Don't reuse marinades used on raw foods unless you bring them to a boil first.

COOK

Cook to the right temperature

- Color and texture are unreliable indicators of safety. Using a food thermometer is the only way to ensure the safety of meat, poultry, seafood, and egg products for all cooking methods. These foods must be cooked to a safe minimum internal temperature to destroy any harmful bacteria.
- Cook eggs until the yolk and white are firm. Only use recipes in which eggs are cooked or heated thoroughly.
- When cooking in a microwave oven, cover food, stir, and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice while cooking. Always allow standing time, which completes the cooking, before checking the internal temperature with a food thermometer.
- Bring sauces, soups and gravy to a boil when reheating.

CHILL

Refrigerate foods promptly

- Use an appliance thermometer to be sure the temperature is consistently 40°F or below, and the freezer temperature is 0°F or below.
- Refrigerate or freeze meat, poultry, eggs, seafood, and other perishables within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the temperature outside is above 90°F.
- Never thaw food at room temperature, such as on the countertop. There are three ways to defrost food: in the refrigerator, in cold water, and in the microwave. Food thawed in cold water or in the microwave should be cooked immediately.
- Always marinate food in the refrigerator.
- Divide large amounts of leftovers into shallow containers for quicker cooling in the refrigerator.

Safe Minimum Internal Temperatures—as measured with a food thermometer

<u>Food Type</u>	<u>Internal Temperature</u>
Beef, Pork, Veal, Lamb (chops, roasts, steaks)	145* F with a 3-minute rest time
Ground Meat	160* F
Ham, uncooked (fresh or smoked)	145* F
Ham, fully cooked (to reheat)	140* F
Poultry (ground, parts, whole, stuffing)	165* F
Eggs	Cook until yolk & white are firm
Egg Dishes	165* F
Fin Fish	145* F or flesh is opaque & separates easily with a fork
Shrimp, Lobster, Crabs	Flesh pearly & opaque
Clams, Oysters, Mussels	Shells open during cooking
Scallops	Flesh is milky white or opaque & firm
Leftovers and Casseroles	165°F

FOOD SAFETY QUICK TIPS

EVERYDAY FOOD SAFETY

STEP 1: CLEAN

Lather up

Before eating, wash your hands with soap and running water for at least 20 seconds. Count to 20 slowly or sing the "Happy Birthday" song to yourself twice.

Create a safe cooking space

Wash countertops, cooking surfaces, and insides of refrigerator, freezer, and microwave frequently with hot, soapy water.

Eat clean

Rinse fruits and veggies under running water. Slicing or dicing? Scrub them anyway—germs can jump from rinds to the insides while cutting and peeling.

Clean it before you crack it open

Wash food packaging, especially lids of cans and jars, before opening.

Rules for tools

Wash cutting boards, knives, and other cooking utensils in hot, soapy water or the dishwasher after each use.

STEP 2: SEPARATE

No touching

Raw meat, poultry, seafood, eggs, and flour should never come into contact with produce or any food that is ready-to-eat—keep them separate while shopping, storing and cooking.

Double up

If you can, use a separate set of cooking tools for raw meat, poultry, seafood, eggs, and flour. If you can't, wash them thoroughly in hot, soapy water between cooking with produce and cooking with meats, eggs, or flour.

Put a lid on it

Place raw meats in sealed containers or plastic wrap on lower shelves of the fridge or freezer.

Serve it safely

When grilling, barbecuing, or cooking meat, use different plates for raw and cooked meats.

No yolking around

Storing eggs on the fridge door can expose them to uneven temperatures. Keep them on lower shelves instead, in their original carton.

STEP 3: COOK

Heat it before you eat it

Use a food thermometer to check that your food has reached a safe temperature.

145°F for seafood

145°F with a 3-minute rest time for beef, pork, and ham

160°F for ground meat, meat mixtures, and egg dishes

165°F for poultry, microwaved foods, and reheated leftovers

Turn the tables

When microwaving, make sure to rotate food to allow for even heating. Always follow directions for cooking and standing time.

Dish it out

When eating at restaurants, avoid foods that contain raw or undercooked eggs, meat, poultry, or seafood. Ask the server if you are not sure.

Doughs and don'ts

Eggs and flour are not safe to eat unless they are fully cooked.

STEP 4: CHILL

Check the App

USDA FoodKeeper can tell you how long foods and drinks are safe to keep in the refrigerator or freezer.

Let it breathe

Leave space for air to circulate between containers in your fridge and freezer.

Shop, and don't stop

At the grocery store, pick up perishable foods last and take them straight home,

Stay chill

If bringing cold foods on-the-go, pack them in ice in an insulated container.

Keep your cool

Chill groceries, leftovers, and food delivery items within 2 hours, or 1 hour if exposed to temperatures above 90F. Use an appliance thermometer to set the fridge to 40F or below and freezer at 0°F or below.

Safe Food Handling: *What You Need to Know*

CLEAN



SEPARATE



COOK



CHILL



The food supply in the United States is among the safest in the world. However, when certain disease-causing bacteria or pathogens contaminate food, they can cause foodborne illness, often called “food poisoning.” The Federal government estimates that there are about 48 million cases of foodborne illness annually – the equivalent of sickening 1 in 6 Americans each year. And each year, these illnesses result in an estimated 128,000 hospitalizations and 3,000 deaths.

Know the Symptoms

Consuming dangerous foodborne bacteria will usually cause illness within 1 to 3 days of eating the contaminated food. However, sickness can also occur within 20 minutes or up to 6 weeks later. Symptoms of foodborne illness can include: vomiting, diarrhea, and abdominal pain – and flu-like symptoms, such as fever, headache, and body ache.

Handle Foods Safely

Although most healthy people will recover from a foodborne illness within a short period of time, some can develop chronic, severe, or even life-threatening health problems. In addition, some people are at a higher risk for developing foodborne illness, including pregnant women, young children, older adults, and people with weakened immune systems (such as transplant patients and individuals with HIV/AIDS, cancer, or diabetes). To keep your family safer from food poisoning, **follow these four simple steps: clean, separate, cook, and chill.**

CLEAN

Wash hands and surfaces often

- Wash your hands with warm water and soap for at least 20 seconds before and after handling food and after using the bathroom, changing diapers, and handling pets.
- Wash your cutting boards, dishes, utensils, and counter tops with hot soapy water after preparing each food item.
- Consider using paper towels to clean up kitchen surfaces. If you use cloth towels, launder them often in the hot cycle.
- Rinse fresh fruits and vegetables under running tap water, including those with skins and rinds that are not eaten. Scrub firm produce with a clean produce brush.
- With canned goods, remember to clean lids before opening.

SEPARATE

Separate raw meats from other foods

- Separate raw meat, poultry, seafood, and eggs from other foods in your grocery shopping cart, grocery bags, and refrigerator.
- Use one cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- Never place cooked food on a plate that previously held raw meat, poultry, seafood, or eggs unless the plate has been washed in hot, soapy water.
- Don't reuse marinades used on raw foods unless you bring them to a boil first.

COOK

Cook to the right temperature

-  Color and texture are unreliable indicators of safety. Using a food thermometer is the only way to ensure the safety of meat, poultry, seafood, and egg products for all cooking methods. These foods must be cooked to a safe minimum internal temperature to destroy any harmful bacteria.
-  Cook eggs until the yolk and white are firm. Only use recipes in which eggs are cooked or heated thoroughly.
-  When cooking in a microwave oven, cover food, stir, and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking. Always allow standing time, which completes the cooking, before checking the internal temperature with a food thermometer.
-  Bring sauces, soups and gravy to a boil when reheating.

Safe Minimum Internal Temperatures as measured with a food thermometer

Beef, Pork, Veal, and Lamb (chops, roasts, steaks)	145 °F with a 3 minute rest time
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Ham, fully cooked (to reheat)	140 °F
Poultry (ground, parts, whole, and stuffing)	165 °F
Eggs	Cook until yolk and white are firm
Egg Dishes	160 °F
Fin Fish	145 °F or flesh is opaque and separates easily with a fork
Shrimp, Lobster, and Crabs	Flesh is pearly and opaque
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Scallops	Flesh is milky white or opaque and firm
Leftovers and Casseroles	165 °F

CHILL

Refrigerate foods promptly

-  Use an appliance thermometer to be sure the temperature is consistently 40° F or below and the freezer temperature is 0° F or below.
-  Refrigerate or freeze meat, poultry, eggs, seafood, and other perishables within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the temperature outside is above 90° F.
-  Never thaw food at room temperature, such as on the counter top. There are three safe ways to defrost food: in the refrigerator, in cold water, and in the microwave. Food thawed in cold water or in the microwave should be cooked immediately.
-  Always marinate food in the refrigerator.
-  Divide large amounts of leftovers into shallow containers for quicker cooling in the refrigerator.



Report a Problem

If you think that you or a family member has a foodborne illness, contact your **healthcare provider immediately**. Also, **report** the suspected foodborne illness to FDA in either of these ways:

- Contact the Consumer Complaint Coordinator in your area. Locate a coordinator here: <http://www.fda.gov/Safety/ReportProblem/ConsumerComplaintCoordinators>
- Contact MedWatch, FDA's Safety Information and Adverse Event Reporting Program:

By Phone: 1-800-FDA-1088

Online: File a voluntary report at <http://www.fda.gov/medwatch>

COOKING WITH NUTRITIOUS INGREDIENTS



As a person who creates recipes, you can play an important role in health promotion by recommending ingredients and cooking methods that support a nutritious diet. Here are a few tips for integrating each of the five food groups into your recipes and some ideas for alternatives to common ingredients.



FRUITS AND VEGETABLES

Fruits and vegetables contain important nutrients, including vitamins, minerals, and fiber.

MyPlate (www.ChooseMyPlate.com) reminds us to make half our plate fruits and vegetables.



When writing recipes:

- Use fruit as the main ingredient in dessert recipes. Fruits like strawberries, apples, and bananas can add sweetness without added sugars.
- Add vegetables like spinach, carrots, tomatoes, sweet potatoes, and corn to soup, stew, and pasta recipes to add nutrients and lower calories per serving.
- Recommend preparing vegetables steamed, baked, sautéed in vegetable oil, broiled, grilled, roasted, or raw.



WHOLE GRAINS

Many whole grains—such as brown rice, wild rice, barley, and bulgar—provide fiber and important nutrients. According to MyPlate, whole grain intake may reduce the risk for heart disease and may also help with weight management.



Include whole grains in your recipes by:

- Replacing $\frac{1}{2}$ of white flour with whole wheat flour in recipes for baked goods.
- Creating new variations of salad and soup recipes by adding whole grain ingredients.
- Including 100% whole grain breads and pastas as ingredients.



PROTEIN FOODS

Eating a variety of protein foods like meats, poultry, seafood, beans, nuts, and seeds can help people meet their protein and nutrient needs.



Use these tips to integrate a variety of protein foods into your recipes:

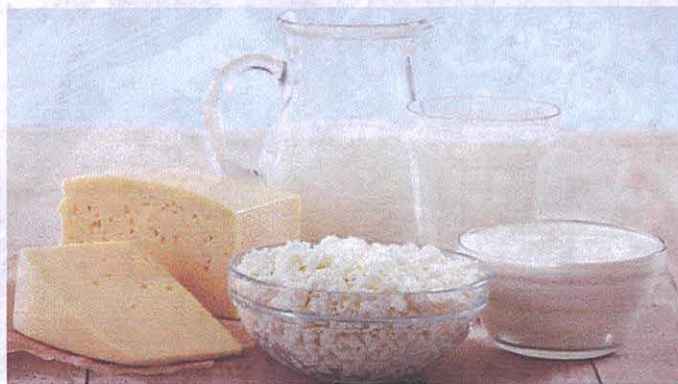
- For recipes with meats or poultry, choose lean ingredients like skinless chicken or turkey breast, pork loin, or lean ground beef (at least 92% lean).
- Use other protein sources, including seafood and non-animal-based sources such as beans, lentils, peas, nuts, tofu, and seeds.

Is your recipe food safe? Find **Tips for Writing Food Safe Recipes** at www.fda.gov/food.



DAIRY

Dairy products are the number one source of calcium in the American diet, and contain vitamin D and potassium. Fat-free and low-fat dairy products provide the same vitamins and minerals but less fat (and fewer calories) than higher-fat options.



When writing recipes that contain dairy products:

- Include low-or non-fat dairy, like 1% or skim milk, low-fat plain yogurt, or lower-fat cheese to reduce saturated fats and sodium.
- Make sure your recipes use only pasteurized dairy ingredients – consumption of unpasteurized dairy products can cause listeriosis and other foodborne illnesses.



MORE NUTRITIOUS RECIPE TIPS

Suggest cooking with oils that are high in mono- and polyunsaturated fats such as olive, canola, or sunflower oil.

Instead of frying foods, recommend baking, broiling, grilling, or steaming.

List salt as an optional ingredient, or use herbs and spices like cumin, garlic powder, paprika, black pepper, or oregano to add flavor without adding sodium.



NUTRITION CHECK

Ask yourself these questions:

- ☐ Does my recipe include a variety of fruits or vegetables?
- ☐ Did I include any whole grains in my recipe?
- ☐ Did I include a variety of protein sources? If my recipe includes meats or poultry, did I include lean ingredients?
- ☐ Are all dairy ingredients pasteurized? Did I include lower-fat dairy options?
- ☐ Does my recipe contain alternatives to sugar, and the option to reduce sodium?

Find out how to understand and use the Nutrition Facts label at www.fda.gov/food.



Food Safe Shopping & Storage

March 2018

Following these tips when buying and storing food can help prevent foodborne illness

DO



DON'T

Keep produce separate from meat, poultry, seafood, and eggs in shopping carts and bags

Choose meat, poultry, or seafood in damaged or leaking packaging

DO



DON'T

Place meat, poultry, seafood, and eggs in plastic bags at checkout

Buy eggs with cracked shells or damaged cartons

DO



DON'T

Keep produce and other ready-to-eat foods in a separate area of the refrigerator from meat, poultry, seafood, and eggs

Remove eggs from carton or keep them in the refrigerator door

DO

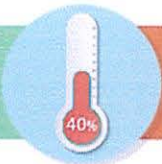


DON'T

Refrigerate food within 2 hours of grocery shopping, or 1 hour if kept in air temperatures above 90 °F

Place raw meat, poultry, or seafood on upper shelves of the refrigerator where they can drip onto other foods

DO



DON'T

Set refrigerator temperature to 40 °F or below and freezer at 0 °F or below (as indicated by an appliance thermometer)

Overfill the refrigerator or freezer

DO



DON'T

Defrost food in the refrigerator, in cold water, or in the microwave – and cook

Thaw meat, poultry, or seafood on the counter

Food Safe Meal Prep

March 2018

Following these tips when cooking and chilling leftovers can help prevent foodborne illness

DO



Wash hands with soap and water for at least 20 seconds before preparing food

DON'T

Wash meat, poultry, seafood, or eggs

DO



Rinse whole fruits and vegetables under running water and dry with a clean cloth, paper towel, or salad spinner

DON'T

Use soap or detergent on foods

DO



Wash utensils that have touched uncooked meat, poultry, seafood, eggs, or flour before using them with any food that will be eaten raw

DON'T

Allow raw meat, poultry, seafood, eggs, or flour to touch any food that will be eaten raw

DO



Clean cooking surfaces and utensils with hot, soapy water after every use

DON'T

Reuse plates or cutting boards that have touched uncooked meat, poultry, seafood, eggs, or flour unless you wash them first with hot, soapy water

DO



Cook meat, poultry, and seafood to a safe minimum internal temperature

DON'T

Serve cooked meat, poultry, or seafood without checking the temperature with a food thermometer



Beef, pork, veal, & lamb
(chops, roasts, steaks):
145 °F
with a 3-minute rest time



Poultry:
165 °F



Ground meats:
160 °F



Fish & seafood:
145 °F

DO



Keep meat, poultry, and seafood warm (140 °F or above) between cooking and serving

DON'T

Allow food to cool before refrigerating

DO



Use the USDA FoodKeeper App to check

DON'T

Let food sit out for more than 2 hours,

ORDERING MEAL KIT?

Meal kits delivered to your door arrive with premeasured, perishable ingredients. Fresh, well packaged food at the right temperatures should be safe to eat.

REMEMBER THESE 5 SAFETY, TIPS:

1. **RESEARCH COMPANIES BEFORE YOU BUY.**
Order from responsible, trusted companies.
2. **TRACK PACKAGES STRAIGHT TO YOUR DOOR.**
Food spoils if it sits too long on trucks or doorsteps.
3. **INSPECT FOR DAMAGE TO THE BOX.**
Food in wet, ripped, torn, or dirty packages might not be safe to eat.
4. **LOOK FOR CROSS-CONTAMINATION.**
Items should be individually packaged and NOT leaking.
5. **CHECK IF COLD FOODS ARE RECEIVED COLD, E.G., MEAT AND FISH.**
Check for safe temperatures on arrival- frozen or partially frozen meat, cold fruits and vegetables.
 - Below 40° Fahrenheit for meat and fish.
 - If meat, fish, fruit, and vegetables don't arrive at safe temperatures, toss them in the trash to avoid getting sick.

FOOD SAFETY FIRST

Before eating food from a meal kit, make sure it's fresh, well packaged, and kept at the right temperature.

How to Cut Food Waste and Maintain Food Safety



Practice habits that are good for your health, your wallet, and the environment!

Food safety is a major concern. The Centers for Disease Control and Prevention (CDC) estimates that there are about 48 million cases of foodborne illness annually – the equivalent of sickening 1 in 6 Americans each year. And each year these illnesses result in an estimated 128,000 hospitalizations and 3,000 deaths.

Food waste is also a major concern. Wasted food is a huge challenge to our natural resources, our environment, and our pocketbooks:

Our resources? Each year getting food to U.S. tables requires:

- 80 percent of our freshwater,
- 10 percent of our available energy, and,
- Half of our land.

The environment? Organic waste, mostly food, is the second biggest component of landfills, and landfills are the third largest source of methane emissions. Methane is a major factor in global warming because it is so effective at absorbing the sun's heat, which warms the atmosphere.

And, finally, our pocketbooks: Between 30 and 40 percent of food in the United States goes uneaten – as much as 20 pounds of food per person per month. That means Americans are throwing out the equivalent of \$165 billion in food each year.

How Food Waste and Food Safety Are Connected

The major sources of food waste in the United States are the food industry and consumers. Within the food industry, waste occurs at every step — on the farm and with packers, processors, distributors, and retailers. Some of it is the result of economic forces, some of management problems, and some is caused simply by dumping products that are less than perfect in appearance.

But food waste by consumers may often result from fears about food safety caused by misunderstanding of what food product dating actually means, along with uncertainty about storage of perishable foods.



WARNING: If food is obviously spoiled – it's abnormally soft, discolored, moldy, or has a strong unpleasant smell – *discard it*, no matter how properly or how short a time it has been stored.

What are Food Product Dates?

Many consumers misunderstand the purpose and meaning of the date labels that often appear on packaged foods. Confusion over date labeling accounts for an estimated 20 percent of consumer food waste.

Except for infant formula, manufacturers are not required by Federal law or regulation to place quality-based date labels on packaged food.

There are no uniform or universally accepted descriptions used on food labels for open dating (calendar dates) in the United States. As a result, there are a wide variety of phrases used for product dating.

FDA supports efforts by the food industry to make **"Best if Used By"** the standard phrase to indicate the date when a product will be at its best flavor and quality. Consumers should examine foods for signs of spoilage that are past their "Best if used by" date. If the products have changed noticeably in color, consistency or texture, consumers may want to avoid eating them. If you have questions or concerns about the quality, safety and labeling of the packaged foods you buy, you are encouraged to reach out to the company that produced the product. Many packaged foods provide the company's contact information on the package.

Manufacturers apply date labels at their own discretion and for a variety of reasons. The most common is to inform consumers and retailers of the date to which they can expect the food to retain its desired quality and flavor.

Industry is moving toward more uniform practices for date labeling of packaged foods. But, for now, consumers may see different phrases used for product dating, such as Sell By, Best By, Expires on, etc.



Where to Learn How Best to Store Perishables and How Long They Will Keep Safely



The **FoodKeeper**, developed cooperatively by the U.S. Department of Agriculture, Cornell University and the Food Marketing Institute, is a complete guide to how long virtually every food available in the United States will keep in the pantry, in the refrigerator, and in the freezer. The Fresh Fruits section, for example, covers apples (3 weeks in the pantry, 4 – 6 weeks in the fridge, and — only if cooked — 8 months in the freezer)

to pomegranates (2 – 5 days pantry, 1 – 3 months fridge, and 10 – 12 months freezer). The Meat, Poultry and Seafood sections are equally complete, and include smoked as well fresh products.

Access the **FoodKeeper** or download it as a mobile application:

- For Android devices — <https://play.google.com/store/apps/details?id=gov.usda.fsis.foodkeeper2&hl=en>
- For Apple devices — <https://itunes.apple.com/us/app/usda-foodkeeper/id978186100?mt=8>



The Refrigerator & Freezer Storage Chart on page 4 includes safe storage times for many widely-used foods.

More Ways to Avoid Wasting Food

- Be aware of how much food you throw away.
- Don't buy more food than can be used before it spoils.
- Plan meals and use shopping lists. Think about what you are buying and when it will be eaten. Check the fridge and pantry to avoid buying what you already have.
- Avoid impulse and bulk purchases, especially produce and dairy that have a limited shelf life. Promotions encouraging purchases of unusual or bulk products

often result in consumers buying foods outside their typical needs or family preferences, and portions — potentially large portions — of these foods may end up in the trash.

- When eating out, become a more mindful eater. If you're not terribly hungry request smaller portions. Bring your leftovers home and refrigerate or freeze them within two hours, and check the Food Keeper to see how long they'll be safe to eat.
- Check the temperature setting of your fridge. Use a refrigerator thermometer to be sure the temperature is at 40° F or below to keep foods safe. The temperature of your freezer should be 0° F or below.
- Avoid "overpacking." Cold air must circulate around refrigerated foods to keep them properly chilled.
- Wipe up spills immediately: It not only reduces the growth of Listeria bacteria (which can grow at refrigerator temperatures), cleaning up spills — especially drips from thawing meats — will help prevent "cross-contamination," where bacteria from one food spread to another.
- Keep it covered: Store refrigerated foods in covered containers or sealed storage bags, and check leftovers daily for spoilage.
- Refrigerate peeled or cut veggies for freshness and to keep them from going bad.
- Use your freezer! Freezing is a great way to store most foods to keep them from going bad until you are ready to eat them. The **FoodKeeper** has information on how long most common foods can be stored in the freezer.
- Check your fridge often to keep track of what you have and what needs to be used. Eat or freeze items before you need to throw them away.
- To keep foods safe when entertaining, remember the 2-Hour Rule: don't leave perishable foods out at room temperature for more than two hours, unless you're keeping hot foods hot and cold foods cold. If you're eating outdoors and the temperature is above 90° F, perishable foods shouldn't be left out for more than one hour.



About Foodborne Illness

Know the Symptoms

Consuming dangerous foodborne bacteria will usually cause illness within 1 to 3 days of eating the contaminated food. However, sickness can also occur within 20 minutes or up to 6 weeks later. Although most people will recover from a foodborne illness within a short period of time, some can develop chronic, severe, or even life-threatening health problems.

Foodborne illness can sometimes be confused with other illnesses that have similar symptoms. The symptoms of foodborne illness can include:

- Vomiting, diarrhea, and abdominal pain
- Flu-like symptoms, such as fever, headache, and body ache

Take Action

If you think that you or a family member has a foodborne illness, **contact your healthcare provider immediately**. Also, report the suspected foodborne illness to FDA in either of these ways:

- Contact the Consumer Complaint Coordinator in your area. Locate a coordinator here: <http://www.fda.gov/Safety/ReportaProblem/ConsumerComplaintCoordinators>
- Contact MedWatch, FDA's Safety Information and Adverse Event Reporting Program:

By Phone: 1-800-FDA-1088

Online: File a voluntary report at <http://www.fda.gov/medwatch>

REFRIGERATOR & FREEZER STORAGE CHART

These short but safe time limits will help keep refrigerated food 40° F (4° C) from spoiling or becoming dangerous. Since product dates aren't a guide for safe use of a product, consult this chart and follow these tips.

- Purchase the product before "sell-by" or expiration dates.
- Follow handling recommendations on product.
- Keep meat and poultry in its package until just before using.
- If freezing meat and poultry in its original package longer than 2 months, overwrap these packages with airtight heavy-duty foil, plastic wrap, or freezer paper; or place the package inside a plastic bag.

Because freezing 0° F (-18° C) keeps food safe indefinitely, the following recommended storage times are for quality only.

Product	Refrigerator	Freezer
Eggs		
Fresh, in shell	3 - 5 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
TV Dinners, Frozen Casseroles		
Keep frozen until ready to heat		3 - 4 months
Deli & Vacuum-Packed Products		
Store-prepared (or homemade) egg, chicken, tuna, ham, macaroni salads	3 - 5 days	Don't freeze
Pre-stuffed pork & lamb chops, chicken breasts stuffed w/dressing	1 day	Don't freeze
Store-cooked convenience meals	3 - 4 days	Don't freeze
Commercial brand vacuum-packed dinners with USDA seal, unopened	2 weeks	Don't freeze
Raw Hamburger, Ground & Stew Meat		
Hamburger & stew meats	1 - 2 days	3 - 4 months
Ground turkey, veal, pork, lamb	1 - 2 days	3 - 4 months
Ham, Corned Beef		
Corned beef in pouch with pickling juices	5 - 7 days	Drained, 1 month
Ham, canned, labeled "Keep Refrigerated," unopened	6 - 9 months	Don't freeze
opened	3 - 5 days	1 - 2 months
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
Hot Dogs & Lunch Meats (in freezer wrap)		
Hot dogs, opened package	1 week	1 - 2 months
unopened package	2 weeks	1 - 2 months
Lunch meats, opened package	3 - 5 days	1 - 2 months
unopened package	2 weeks	1 - 2 months

Product	Refrigerator	Freezer
Soups & Stews		
Vegetable or meat-added & mixtures of them	3 - 4 days	2 - 3 months
Bacon & Sausage		
Bacon	7 days	1 month
Sausage, raw from pork, beef, chicken or turkey	1 - 2 days	1 - 2 months
Smoked breakfast links, patties	7 days	1 - 2 months
Fresh Meat (Beef, Veal, Lamb, & Pork)		
Steaks	3 - 5 days	6 - 12 months
Chops	3 - 5 days	4 - 6 months
Roasts	3 - 5 days	4 - 12 months
Variety meats (tongue, kidneys, liver, heart, chitterlings)	1 - 2 days	3 - 4 months
Meat Leftovers		
Cooked meat & meat dishes	3 - 4 days	2 - 3 months
Gravy & meat broth	1 - 2 days	2 - 3 months
Fresh Poultry		
Chicken or turkey, whole	1 - 2 days	1 year
Chicken or turkey, parts	1 - 2 days	9 months
Giblets	1 - 2 days	3 - 4 months
Cooked Poultry, Leftover		
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	3 - 4 days	6 months
Chicken nuggets, patties	3 - 4 days	1 - 3 months
Fish & Shellfish		
Lean fish	1 - 2 days	6 - 8 months
Fatty fish	1 - 2 days	2 - 3 months
Cooked fish	3 - 4 days	4 - 6 months
Smoked fish	14 days	2 months
Fresh shrimp, scallops, crawfish, squid	1 - 2 days	3 - 6 months
Canned seafood (Pantry, 5 years)	after opening	out of can
	3 - 4 days	2 months

TEST YOUR FOOD KNOWLEDGE ABOUT READY-TO-COOK FOODS

This simple quiz can help keep you healthy

Eating nutritious foods is essential for good health. But foods occasionally do become contaminated somewhere along the food-supply chain—on the farm or in the consumer's home, or anywhere in between. This can include ready-to-cook foods, which are any foods whose packages or labels tell you to cook or bake them, such as frozen pizza and frozen breaded raw shrimp.

As with any food, ready-to-cook food that has become contaminated with bacteria or other organisms that could make you sick might look and smell normal. Think along the lines of "just in case," and follow the important safety tips in this quick quiz.

True or False? If a ready-to-cook food is contaminated with bacteria that could make me sick, freezing will kill the bacteria.

False

Correct! Many kinds of bacteria can live even at freezing temperatures. If a frozen food contains enough bacteria that survive freezing, the food can make you sick, if you don't cook it at temperatures high enough to kill the bacteria before you eat it. Follow the cooking instructions on the package to make sure that the food reaches hot enough temperatures all the way through, including in the center.

True or False? Some ready-to-cook foods were already partially cooked at the factory. This killed any harmful bacteria that might have been present.

False

Correct! Partial cooking at the factory makes foods more convenient (for example, by shortening cooking time), but it does not necessarily mean that all the ingredients have been cooked or that the cooking was necessarily done at temperatures high enough or for long enough to kill any harmful bacteria that may have been present.

True or False? Pasteurized egg products can be used in eggnog.

True

Correct!...but using raw, **un**pasteurized eggs can make you sick, because some might carry the bacterium *Salmonella* or other organisms. They should not be eaten raw in eggnog or any other food or drink. If contaminated **un**pasteurized eggs are used in eggnog, don't count on the alcohol in the drink to kill all the bacteria—that's not likely to happen.

But pasteurized eggs or egg products have been treated to kill bacteria. Look at the product packaging; it will tell you if the product has been pasteurized.

Of course, **any** kind of food or drink that's supposed to be refrigerated can grow bacteria, whether or not it's pasteurized, if you don't keep it refrigerated according to the package instructions; for example, if you leave it at room temperature for more than two hours.

True or False? Microwaving will kill bacteria that might be present in ready-to-cook foods.

True

Correct! ... *if you follow the package instructions.* If the directions say that ready-to-cook food should be cooked—not just warmed up—by microwave, be sure to use the power level and amount of time specified. Cover the dish, and stir the food, if the instructions tell you to. Always allow standing time. Which completes the cooking, before checking the internal temperature with a food thermometer.

If you don't follow the directions, the temperature might not get hot enough all the way through the food, including in the center, to kill any bacteria that might have been present. In fact, if bacteria happen to be present and you just get the food very warm, instead of hot enough to kill the bacteria, it can actually cause the bacteria to multiply, raising the chance that the food will make you sick.

True or False? I need to wash my hands when handling ready-to-cook food.

True

Correct! Wash your hands before and after handling any food. Not washing your hands can spread any bacteria that are present, either from the food to your hands and your surroundings or from your hands to the food.

True or False? These tips apply only to ready-to-cook foods.

False

Correct! The safety tips above apply to any food that's supposed to be cooked. They apply whether it's ready-to-cook food (like frozen entrees or frozen pizza, among many others) or a raw food that you cook "from scratch."