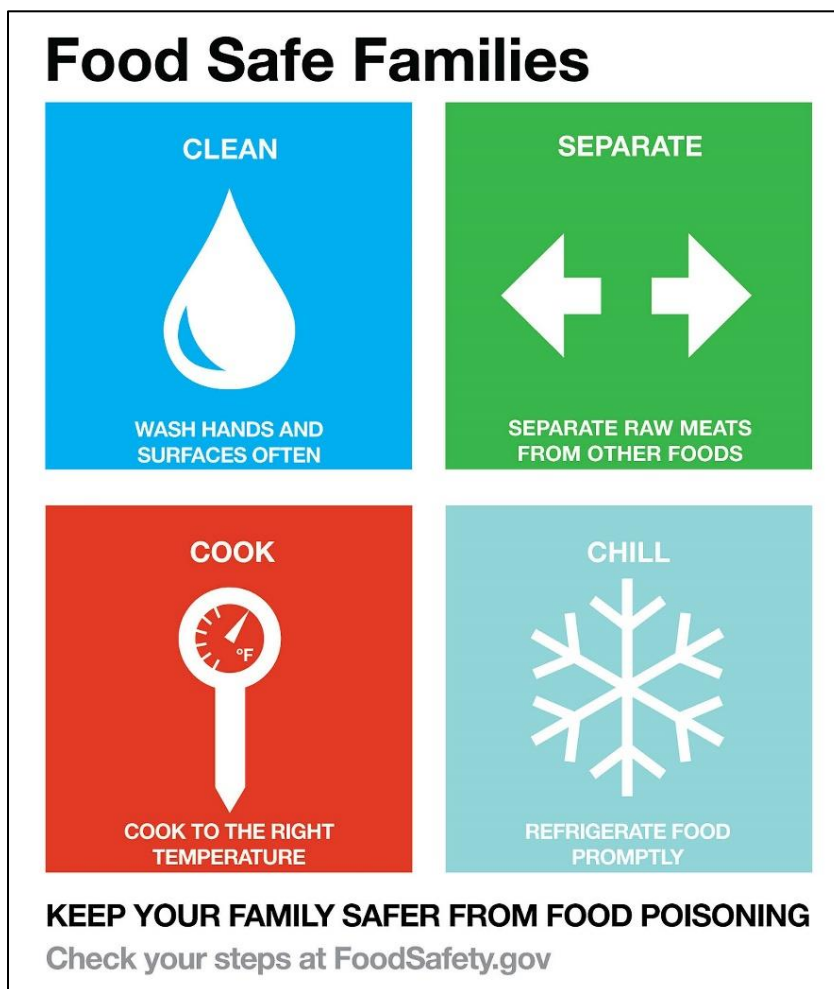


Food Safety Guidelines for People with Cancer





When certain bacteria, viruses or parasites contaminate food, they can cause foodborne illness. People with weak immune systems due to cancer are more likely to get sick from contaminated food. This handout will tell you how to safely handle and prepare your food to avoid foodborne illness. It also has a chart that lists foods you should not eat.

Four basic steps to food safety

Food that looks, smells or tastes fine can have bacteria, viruses or parasites that can make you sick. **Never taste a food to see if it is safe to eat.** The easiest way to stay safe is to follow these 4 steps each time you handle and prepare food: **clean, separate, cook and chill.**



Food Safe Families

CLEAN  WASH HANDS AND SURFACES OFTEN	SEPARATE  SEPARATE RAW MEATS FROM OTHER FOODS
COOK  COOK TO THE RIGHT TEMPERATURE	CHILL  REFRIGERATE FOOD PROMPTLY

KEEP YOUR FAMILY SAFER FROM FOOD POISONING
Check your steps at FoodSafety.gov

Step 1

Clean: Wash your hands and surfaces often. Bacteria, viruses and parasites can spread in the kitchen and get onto cutting boards, utensils, countertops and food. To make sure your hands and surface are clean, you should:

- Wash hands in warm soapy water for **at least 20 seconds** before and after:
 - Handling food
 - Touching garbage
 - Using the bathroom
 - Touching pets
- Wash cutting boards, dishes, utensils and countertops with hot soapy water before and after you prepare raw meat, poultry, seafood and any food that will not be cooked. As an added precaution, the U.S. Department of Agriculture suggest sanitizing cutting boards and countertops by rinsing them in a solution made of 1 tablespoon of unscented liquid chlorine bleach per gallon of water. As an alternative, plastic cutting boards can be run through the wash cycle of a dishwasher.
- Wash produce. Rinse fresh fruits and vegetables and use a clean vegetable brush to scrub firm-skin fruits and vegetables under running water for at least 30 seconds, including those with skins and rinds that are not eaten. These include fruits and vegetables that are prewashed, pre-rinsed or are organic.
- Use paper towels to clean up kitchen surfaces. Wash kitchen cloths, towels and sponges daily in the hot cycle of the washing machine.
- Clean lids of cans with hot soapy water before opening. Wash the can opener with hot soapy water after use.
- Don't wash meat, poultry, fish or eggs. If water splashes from the sink while washing, it can spread bacteria.
- Wipe handles of grocery carts and baskets with a sanitizing wipe before using them.
- Wash your hands with soap and water or use an alcohol-based hand sanitizer after touching menus in a restaurant.

Step 2

Separate and don't cross contaminate. Cross-contamination occurs when germs spread from one food product to another. This often happens when raw meat, poultry, seafood and eggs are not handled safely. The key is to keep these foods and their juices away from vegetables and fruit that will be eaten raw and any other ready-to eat foods.

To prevent cross-contamination:

- Keep raw meat, poultry, seafood and eggs away from other foods in your grocery cart, grocery bags and refrigerator. Put raw packaged meat, poultry or seafood into a plastic bag before putting it in the shopping cart. Store raw meat, poultry and seafood on the bottom shelf of the fridge so their juices won't drip on foods that will not be cooked.
- Never put cooked food back on a plate or cutting board that held raw meat, poultry, seafood or eggs without first washing the plate or cutting board with hot soapy water.
- Don't reuse marinades used on raw foods unless you bring them to a boil first.
- Use separate cutting boards for raw foods and another for ready-to-eat foods, such as bread, fresh fruits and vegetables, and cooked meat.
- Don't cut different types of foods with the same knife. Wash the knife with hot, soapy water before using it to cut a different type of food. Or, use one knife to cut meat, another to cut veggies and another to cut bread.
- Don't taste the food you are cooking with the same utensil used for stirring. Use a clean utensil each time you taste food while it is cooking.



Step 3

Cook foods to safe temperatures. Foods are safely cooked when they are heated to the USDA-FDA recommended safe minimum internal (inside) temperatures, as listed on this page. **To make sure foods are cooked safely, always use a food thermometer.** Check the inside temperature in several places with the thermometer to make sure the food is cooked to the safe minimum temperature. Follow the table below for safe cooking guidelines.

Type of food	Recommended safe minimum internal temperature
Turkey, Chicken, Duck	Heat to an inside temperature of at least 165°F.
Beef, Pork, Veal, Lamb Steaks, Roasts and Chops	Heat to an inside temperature of at least 160°F for ground meats and at least 145°F for steaks, roasts and chops with a 3-minute rest time after cooking. Juices should run clear.
Ham fresh or smoked	Heat to an inside temperature of at least 145°F and allow to rest for at least 3 minutes. Reheat cooked hams packaged in USDA-inspected plants to 140°F and all others to 165°F.
Fish	Heat to an inside temperature of at least 145°F. Cook until flesh is opaque and thickest part pulls apart easily with a fork.
Shrimp, Lobster, Crab	Cook until shells turn red and flesh is pearly opaque.
Clams, Mussels, Oysters	Cook until shells open. If the shells do not open, do not eat the seafood inside.
Eggs	Cook until the yolks and whites are firm. Use only recipes in which the eggs are cooked or heated to at least 160°F.
Sauces, soups, gravies	Bring to a boil when reheating.
Hot dogs, lunch meats, bologna and deli meats	Heat until steaming hot or at least 165°F.
Leftovers and Casseroles	Heat to at least 165°F.
Unpasteurized tofu	Cut into cubes and boil for 5 minutes.
Foods that are cooked and waiting to be served	All foods should stay at least at 140°F between the time they are cooked and served.

When cooking in a microwave oven, cover, stir and rotate food for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking. Always allow standing time before checking the inside temperature with a food thermometer. Food is done when it reaches at least the safe minimum inside temperature.

Step 4

Chill foods quickly. Cold temperatures slow the growth of harmful bacteria. Keeping a constant refrigerator temperature of 40°F or below is one of the best ways to lower the risk of foodborne illness. Use an appliance thermometer to make sure your refrigerator is 40°F or lower and your freezer temperature is 0°F or lower. To chill foods safely:

- Refrigerate or freeze meat, poultry, eggs, seafood and any perishable foods within 2 hours of buying or cooking. Refrigerate within 1 hour if the temperature outside is above 90°F.
- Never thaw food at room temperature, such as on the countertop. Thaw food in the refrigerator, in cold water, or in the microwave. When thawing food in the refrigerator, keep it away from raw fruits, veggies and other cooked foods. Put a dish under the food to catch drips. If you thaw food in cold water or in the microwave, you should cook it right after it is thawed. Do not refreeze food once it is thawed.
- Place cooked food into shallow containers and immediately put in the refrigerator or freezer for rapid cooling.
- Keep cold foods cold, at 40°F or below. Keep hot foods hot - over 140°F.
- Throw away any cooked or perishable food left out at room temperature for more than 2 hours – 1 hour if the outside temperatures is above 90°F.
- Throw away cooked foods, such as leftovers, that are stored in the refrigerator after 72 hours (3 days). Put dates on cooked foods you store in the refrigerator. If you are not sure about the safety of a food in your refrigerator, don't take the risk – **when in doubt, throw it out!**
- Freeze foods that will not be used within 2 to 3 days.

Call your doctor or nurse right away if you have:

- Nausea or throwing up
- Diarrhea
- Fever of 100.4°F (38°C) or higher or chills
- Stomach cramps



Foodborne illness often feels like the flu. Call your doctor or nurse right away if you have the symptoms above or if you think you have become sick because of food you have eaten.

Foods and drinks to avoid

Some foods and drinks are more likely to contain harmful bacteria or viruses. The risk from these items depends on where they come from and how they are processed, stored and prepared. The items in this chart have a higher chance (risk) of causing a foodborne illness. If you had a bone marrow or stem cell transplant, see the last page for extra guidelines.

Food Group	Do Not Eat or Drink
<p>Protein Sources</p>	<p>Undercooked or raw meat, poultry, seafood, and shellfish</p> <p>Raw or undercooked (over easy, soft boiled, poached) eggs and unpasteurized egg substitutes</p> <p>Unpasteurized tofu</p> <p>Sliced meats from the deli. Commercially packaged luncheon meats and hot dogs are allowed, if heated until steaming hot before eating.</p> <p>Hard-cured salami in natural wrap</p> <p>Pickled fish; Uncooked, refrigerated smoked seafood such as salmon or trout labeled nova-style, lox, kippered, smoked or jerky</p> <p>Tempe (tempeh) products and all miso products</p> <p>Refrigerated pâtés or meat spreads</p> <p>Unroasted raw nuts and roasted nuts in the shell</p>
<p>Milk</p>	<p>Unpasteurized or raw milk, milk products or eggnog and foods made from unpasteurized or raw milk</p> <p>Unpasteurized cheeses</p> <p>Sliced cheeses from the deli. Commercially packaged cheeses are allowed.</p> <p>Cheeses made with mold as Brie, Camembert, Stilton and Blue and Mexican-style soft cheeses such as queso fresco, queso blanco</p> <p>Unpasteurized yogurt</p>

Food Group	Do Not Eat or Drink
Fruits	<p>Fresh fruits that have not been carefully washed</p> <p>Unpasteurized fruit juices - such as apple cider</p> <p>Fresh fruit salsa and pre-cut fruit from grocery store</p>
Vegetables	<p>Fresh vegetables or herbs that have not been carefully washed</p> <p>Raw sprouts - alfalfa, bean, broccoli and any other sprouts</p> <p>Unpasteurized vegetable juices</p> <p>Fresh fruit salsa and pre-cut vegetables from grocery store</p> <p>Bagged lettuces and salads from restaurants</p>
Grains	<p>Unpackaged breads or bagels from self-serves bins</p> <p>Uncooked grain products such as raw oats</p>
Fats, Oils and Sweets	<p>Salad dressings containing molded cheese such as bleu, Roquefort</p> <p>Foods that contain raw/undercooked eggs such as homemade mayonnaise, eggnog, cookie dough, cake or brownie batter and Caesar-salad dressing</p> <p>Fresh salad dressings (stored in grocery refrigerated case) containing raw eggs or cheeses listed under dairy do not eat category</p>
Beverages	<p>Cold-brewed tea made with warm or cold water</p> <p>Mate tea, sun tea, Kombucha tea</p> <p>Unpasteurized beer, homemade wine or home brewed beer</p> <p>Unboiled well water</p>
Other	<p>Items from bulk food bins, salad bars, buffets or self-service</p> <p>Raw uncooked brewers' yeast</p> <p>Moldy and outdated food products</p>

USDA-FDA Cold Storage Chart

These time limit guidelines help keep refrigerated food safe to eat. Because freezing keeps food safe indefinitely, recommended storage times for frozen foods are for quality only.

Product	Refrigerator (40°F)	Freezer (0°F)
Fresh, in shell eggs	3 to 5 weeks	Don't freeze
Hard cooked eggs	1 week	Don't freeze well
Liquid Pasteurized Eggs, Egg Substitutes		
Opened	3 days	Don't freeze well
Unopened	10 days	1 year
Deli and Vacuum-Packed Products		
Egg, chicken, ham, tuna & macaroni salads	3 to 5 days	Don't freeze well
Hot Dogs		
Opened package	1 week	1 to 2 months
Unopened package	2 weeks	1 to 2 months
Luncheon Meats		
Opened package	3 to 5 days	1 to 2 months
Unopened package	2 weeks	1 to 2 months
Bacon, Sausage and Ground Meats		
Bacon	7 days	1 month
Sausage, raw – from chicken, turkey, pork, beef	1 to 2 days	1 to 2 months
Hamburger, ground beef, turkey, veal, pork, lamb and mixtures of them	1 to 2 days	3 to 4 months
Fresh Beef, Veal, Lamb, Pork		
Steaks	3 to 5 days	6 to 12 months
Chops	3 to 5 days	4 to 6 months
Roasts	3 to 5 days	4 to 12 months
Fresh Poultry		
Chicken or turkey, whole	1 to 2 days	1 year
Chicken or turkey, pieces	1 to 2 days	9 months
Seafood		
Lean fish such as halibut, flounder, haddock	1 to 2 days	6 to 8 months
Fatty fish such as salmon, tuna	1 to 2 days	2 to 3 months
Leftovers		
Leftovers	3 days	Do not reheat



If you had a bone marrow or stem cell transplant, follow the food safety guidelines in our Low Pathogen Diet and Food Safety handout. If you need a copy, ask your nurse.

Other safety tips

Talk with your doctor, nurse or dietitian **before** taking probiotics. Ask if it's safe for you to take them. Some patients should avoid taking certain probiotics based on their diagnosis and/or treatment plan.

Read food labels to make sure food is not past its “sell by” or “use by” date.

When purchasing canned foods, make sure they are free of dents, cracks, or bulging lids. Once home, clean each lid before opening the can.

When eating out, ask if food contains uncooked items such as eggs, sprouts, seafood or meat. If in doubt, choose something else.

Buy produce that is not bruised or damaged.

To learn more

- Visit www.foodsafety.gov
- Read the booklet **Food Safety for Older Adults and People with Cancer, Diabetes, HIV/AIDS, Organ Transplants and Autoimmune Diseases** from the Food and Drug Administration (FDA).

To order a free copy, call 1-888-674-6854 or email fsis.outreach@usda.gov.
To view online, visit: www.foodsafety.gov. Click on People at Risk > People with Weakened Immune Systems

- Learn about food storage timelines on the Foodkeeper app or foodsafety.gov

This info is a general resource. It is not meant to replace your doctor’s advice. Ask your doctor or health care team any questions. Always follow their instructions.