

Keep Your

Fruits & Vegetables *Safe*



Fresh fruits and vegetables are an important part of your diet. They'll taste better, last longer, and be safer when you handle them carefully.

While the food supply in the United States is one of the safest in the world, more than 75 million Americans still get sick each year from improper handling, storage, and cooking of food. Bacteria, viruses, and tiny parasites can invade food without you even knowing it. And even though you can't see, smell, or taste them, they can still make you sick – and maybe even kill you.

Shop

- **Avoid produce that is bruised, damaged, moldy, or shows signs of insects.** It's better to buy canned or frozen fruits and vegetables than poor-quality ones.
- **Precut produce should be refrigerated** or surrounded in ice.
- **Make sure packaging is sealed.**
- **Check the "use by" date.** Choose the freshest package you can find and use by the date on the package.
- **Keep produce separate from cleaning supplies** and meat, poultry, and seafood in the shopping cart and in grocery bags.

The time to think about food safety is **BEFORE** you get sick.

Store

- After purchase, put produce that needs refrigeration away promptly. These fruits and vegetables should be stored in perforated plastic bags in the produce drawers of the refrigerator.
- Many whole fruits and vegetables should be stored at room temperature, for example bananas and potatoes. Store these away from direct sunlight. To hasten ripening, produce can be placed in a well-vented plastic bowl, paper sack, or perforated plastic bag. Produce in a sealed plastic bag decays quickly.
- Fresh produce should be refrigerated within two hours of peeling or cutting. Leftover cut produce should be discarded if left at room temperature for more than two hours.

To maintain the freshness and flavor of your fruits and vegetables, know how to store them at home.

How to Store Fruits and Vegetables

Storage Location	Fruits	Vegetables
Store in refrigerator	Apples (>7 days) Apricots Blackberries Blueberries Cherries Cut fruits Figs Grapes Asian pears Raspberries Strawberries	Artichokes Asparagus Green beans Lima beans Beets Broccoli Brussels sprouts Cabbage Carrots Cauliflower Celery Green onions Herbs (not basil) Leafy vegetables Lettuce Mushrooms Peas Radishes Spinach Sprouts Sweet corn
Ripen at room temperature then store in refrigerator	Avocados Kiwifruit Nectarines Peaches Pears Plums Plumcots	
Store only at room temperature	Apples (< 7 days) Bananas Grapefruit Lemons Limes Mandarins Mangoes Oranges Papayas Persimmons Pineapple Pomegranates Watermelons	Basil (in water) Cucumbers** Dry onions* Eggplant** Garlic* Ginger Jicama Peppers** Potatoes* Pumpkins Winter squashes Sweet potatoes* Tomatoes

*Store garlic, onions, potatoes, and sweet potatoes in a well-ventilated area in the pantry. Protect potatoes from light to avoid greening.

**Cucumbers, eggplant, and peppers can be kept in the refrigerator for one to three days if they are used soon after removal from the refrigerator.

Clean

- **Wash your hands** with hot soapy water before and after preparing each food item, as well as after using the bathroom, changing diapers, or handling pets.
- **Disinfect** food preparation surfaces with a mild bleach solution after use.
- **Never use detergent or bleach** to wash fresh produce. Instead, rinse them under tap water – even if you don't plan on eating the skins or rinds.
- **Read the label** on packaged produce. “Ready-to-eat,” “washed,” or “triple washed” don't need to be washed.
- **Dry produce** with a clean cloth or paper towel.
- **Clean up spills** in your refrigerator as soon as they occur.



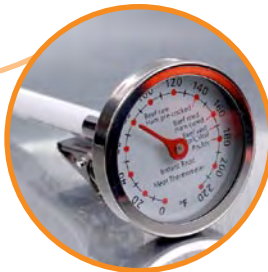
Separate

- Don't let the juices from raw meat, poultry, or seafood come in contact with cooked meat or other foods. If any juice drips onto your produce, throw it out or thoroughly cook it before eating.
- Use one cutting board for fresh fruits and vegetables and another one for raw meat, poultry, and seafood.



Cook

- Cook foods at the right temperature. Use a food thermometer to measure the internal heat.
- Be sure to use any plastics for their intended purpose and in accordance with directions. If you don't find instructions for microwave use, use a different plate or container that you know is microwave-safe.
- When cooking in a microwave, make sure there are no cold spots in the food where bacteria can survive.
- Keep cooked foods hot (140 degrees Fahrenheit or higher) prior to and during serving. For buffets, use chafing dishes, slow cookers, or warming trays. Otherwise, keep lids on the dishes and store them in insulated containers or a warming oven.



SAFE MINIMUM INTERNAL TEMPERATURES	
Whole poultry	165° F
Poultry breasts	165° F
Ground poultry	165° F
Hamburgers, beef	160° F
Beef, veal, and lamb (steaks, roasts and chops)	Medium 160° F Medium rare 145° F
All cuts of pork	160° F

Microwave Cooking

Microwave-safe plastic wrap should be placed loosely over food so that steam can escape, and should not directly touch your food. Always read directions, but generally, microwave-safe plastic wraps, wax paper, cooking bags, parchment paper, and white microwave-safe paper towels are safe to use. Covering food helps protect against contamination, keeps moisture in, and allows food to cook evenly. Never use carryout containers from restaurants, margarine tubs, plastic storage bags, grocery bags, newspapers, or aluminum foil in the microwave.



Chill

- Use an appliance thermometer to be sure the refrigerator temperature is consistently 40°F or below. Freezers should be set to zero degrees.
- Always marinate food in the refrigerator.
- Never defrost food at room temperature. 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.
- Refrigerate leftover foods soon after eating. It is not necessary to cool foods before refrigerating them. In fact, this is a risky practice. If a food sits out for more than two hours (one hour when the temperature is above 90°F), throw it out.



Toss

- If a prepared food sits out for more than two hours (one hour when the temperature is above 90°F), throw it out.
- Cut out and discard bruised or damaged spots on your produce.
- If you are unsure whether a food is safe, throw it out!
- Clean out your refrigerator on a regular basis. Toss out any food that has been in stored too long.



Cold Storage Chart

How long can food stay in the refrigerator or freezer? Find out with this cold storage chart:

www.foodsafety.gov/~fsg/f01chart.html

For additional food safety information, visit www.foodsafety.gov.

Sources: *Storing Fresh Fruits and Vegetables for Better Taste*. Department of Pomology. University of California, Davis. 2006.

Van Laanen P and Scott A. *Safe Handling of Fresh Fruits and Vegetables*. Texas Cooperative Extension. The Texas A&M University System.

"Puttin' Food By" Safely

— How to preserve fresh produce

Our ancestors might have starved to death had they not found a way to preserve foodstuffs for winter use. Some foods were smoked or dried, some frozen, and some canned. Today, many households simply purchase their food year-round from grocery stores. Others continue the tradition of preserving many types of food.

Why Preserve Your Own Food?

There are several reasons why someone might want to preserve their own foods, including:

- **The food retains more of its nutrients** when processed within a couple days after being harvested.
- **You know what's in the food** – no artificial preservatives or products you might be allergic to.
- Foods can be preserved with **the exact salt or sugar content you like**.
- You can **create your favorite recipes** – like watermelon relish or hickory smoked bass with cayenne and chili powder – as long as you stay within the recommended guidelines for safety.
- If you discount your time, home preserved foods are **cheaper than commercial products**.
- Many gain **personal satisfaction** or a feeling of self-sufficiency.

Types of Food Preservation

For all the kinds of preserved foods, there are only three basic categories.

Canning is the process in which foods are put in glass jars or cans and heated to a temperature that destroys microorganisms and inactivates enzymes either in a pressure cooker or a boiling water bath. As the food cools, it forms a vacuum seal, which prevents other microorganisms from recontaminating the food within the jar or can. Pickling is another form of canning that increases the acidity of foods. When foods are canned with high amounts of sugar they're jams and jellies.

Freezing reduces the temperature of the food. Enzyme activity is slowed down but not stopped. Blanch vegetables to inactivate the enzymes yet still preserve color, flavor, and nutrients. Enzymes in fruits can cause browning and loss of vitamin C, and are controlled by the addition of ascorbic acid.

Drying removes most of the moisture from foods. Thus microorganisms cannot grow and enzyme action is slowed down. Dried foods should be stored in airtight containers to prevent moisture from rehydrating the products and allowing microbial growth. Smoking enhances the flavor of meats and cheese, and also retards the development of spoilage bacteria. Salt is used to accelerate the drying process.



Avoid Deadly Diseases

Never eat or even taste any home-canned food if:

- The food appears to be spoiled
- The food foams or develops a bad smell during cooking
- The container has a bulging lid or is leaching
- Up-to-date researched preservation methods (such as processing times and pressures) were NOT used for the size of the jar, style of pack, and kind of food being processed
- Ingredients were added that were NOT in an approved recipe
- Proportions of ingredients were CHANGED from the original approved recipe
- The processing time and pressure were NOT correct for the altitude at which the food was canned
- The gauge of the canner was inaccurate
- You are not sure whether the food was properly canned

To safely dispose of food in jars, remove the lid and set the jar in a pan of water. Boil the contents at least 10 minutes. Then, pour out the contents out into a waterproof container and throw it in the garbage. If the food is in a plastic baggie, throw the food away – baggie and all.

Do not feed questionable food to your pets or any other animals. After throwing it away, wash your hands well with warm soapy water. Also wash utensils or surfaces the food or container may have touched. Glass jars can be reused if sterilized with bleach or in boiling water.

Before You Preserve

Food preservation methods have changed since your grandmother "put food by" for the winter. When you carefully follow the steps to safe food preservation, your food can be safe in addition to satisfying. Just don't take any shortcuts!

Before you preserve your food this year, check out the USDA Food and Nutrition Information Center for specific information on recipes and procedures:

www.nal.usda.gov/fnic/etext/000028.html