

PRESTO®

Pressure Canning Essentials



Reliable answers to your canning questions from Presto, a trusted leader in home canning.

For more canning resources, visit GoPresto.com.

procedures. Canning information published before 1994 may be incorrect and could pose a serious health risk.

A tested recipe for home-canned food that will be stored at room temperature is one that has been evaluated to determine the accurate processing method (boiling water canning or pressure canning) as well as the preparation instructions and processing time—all vital elements for a successful and safe canning project. Do not alter tested canning recipes. Instead, add special ingredients when the canned product is ready to serve. Do NOT can leftovers; it is not safe.

Always use research-tested recipes from a reliable resource such as the National Center for Home Food Preservation (nchfp.uga.edu), your local Cooperative Extension Service, the **GoPresto.com** website or by calling National Presto Industries, Inc. at (800) 877-0441.



Why is it necessary to use a pressure canner for certain types of food?

Canning destroys the natural enzymes, molds, yeasts, and bacteria that cause food spoilage. Most of these microorganisms are killed by processing food at boiling temperature (212°F) for a specified time period.

The temperature and time required to destroy bacteria is determined in part by the acidity of the food being canned. Along with heat, the natural acid in fruits and tomatoes retards bacteria growth.

Some bacteria, such as *Clostridium botulinum*, can be more difficult to destroy so canning at a higher temperature is absolutely necessary. Low-acid foods (vegetables, meats, poultry, and fish) must be canned at a temperature of 240°F or higher and held there for the time specified in the recipe in order to destroy the bacterial spores naturally present in these foods.

Pressure canning utilizes pressurized steam to reach this superheated temperature. Therefore, the United States Department of Agriculture recommends pressure canning as the only safe method for preserving low-acid foods. Low-acid foods must be canned at pressures and times stated in current, reliable published canning instructions.



Is it safe to use canning recipes found on the web or passed down from family?

Canning recipes that have been handed down through the years or those found on the web are oftentimes unreliable and usually do not include scientifically tested processing



How should pickled foods and jams and jellies be canned?

Pickles, pickled vegetables (such as beets), sauerkraut, jams, jellies, and salsas should NOT be canned under pressure. They should only be preserved by using the boiling water method. To learn how to use your Presto® pressure canner as a boiling water canner, go to GoPresto.com.



Why do I need to use "Mason" canning jars?

Glass home canning jars, sometimes referred to as Mason jars, are the only jars recommended for safe home canning. They are available in standard sizes (half-pint, pint, and quart) and will withstand the heat of a pressure canner, time after time. **Note:** Half gallon jars are recommended only for canning clear juices, such as grape and apple.

Glass home canning jars offer a deep neck and wide sealing surface to assure a tight seal. Always visually examine canning jars for nicks or cracks. Recycle or discard any damaged jars. Do not use jars from commercially prepared foods because they were made for single-use only. Always use the jar size and exact processing procedures indicated in the research-tested processing recipe.



Is it necessary to vent my pressure canner before processing?

Yes. It is vitally important to allow steam to escape from the canner for 10 minutes before placing the pressure regulator on the vent pipe. This ensures that all air is vented (exhausted) from the canner as well as the jars. If the air is not exhausted, the inside temperature may not correspond to the pressure on the gauge. Venting also eliminates any air pockets in the jars of food that would cause an uneven heat treatment to occur.



Do I use the same time and temperature when processing less than a full load in the canner?

Yes. The processing pressure and time, as well as water in the canner must be the same regardless of the number of jars being processed. The venting (or exhausting) time also remains the same.



Why do my jars lose liquid?

Liquid loss can occur for several reasons:

- Jars were packed too solidly with food or were overfilled.
Allow ½-inch headspace for all fruits and tomatoes, 1-inch for vegetables, meat, and fish, and 1¼-inch for poultry. This is necessary since food expands during canning.
- Failure to work out air bubbles from the filled jars before placing the lids and bands.
- Ring bands were not adjusted according to manufacturer's directions.
Bands should be tightened fingertip-tight.
- Canner was not allowed to vent for 10 minutes before the pressure regulator was placed on the vent pipe.
Venting is necessary to ensure that all air is exhausted from the canner as well as the jars.
- Air was exhausted too vigorously during the 10 minutes of venting.
Adjust heat to keep a steady but gentle-to-moderate flow of steam from the vent pipe.
- Pressure fluctuated too much during processing due to:
 - unsteady heat source
 - Steam leakage from the pressure canner
 - Rapid temperature change, such as drafts or air conditioner blowing on canner
- The adjustable pressure regulator on a Weighted Gauge Canner was allowed to rock too vigorously during processing time.
Adjustable pressure regulator should rock continuously but gently.

- Pressure in canner was not allowed to drop naturally after processing time expired.
Besides liquid loss, speeding up the release of pressure from the canner may also result in food spoilage. The time to reduce pressure is factored into the overall processing of the food.
- Failure to allow the canner to remain closed for 10 minutes after pressure had been completely reduced.

If liquid is lost during processing, do not open the jar to replace liquid. If all canning procedures have been followed and the lids have sealed, the food is safe to store and eat. However, food that is above the liquid line may discolor during storage, so plan to use those jars first.

Liquid loss of at least half indicates that the processing procedures may not have been followed. Place those jars in the refrigerator and use the food within 2 to 3 days.



Why did my food float to the top of the jar?

- Fruit was lighter than the syrup used for packing.
Use firm, ripe fruit and a light to medium syrup.
- Food was raw packed rather than hot packed. Uncooked food contains air that is released during processing.
- Food was packed too loosely.
Pack food as closely as possible without damaging it.

Floating does not affect the quality of the food.



Why do jars break during processing?

- Commercial food jars, such as mayonnaise, pickle, etc. were used instead of the recommended home canning jars.
- Jars were cracked, nicked or just weakened with age and repeated use.
- Jars were packed too solidly with food or were overfilled.
Allow ½-inch headspace for all fruits and tomatoes, 1-inch for vegetables, meat, and fish, and 1¼-inch for poultry. This is necessary since food expands during canning.
- Cold jars were immersed in boiling water.
Filled jars should be hot when placed into the canner. When using the hot pack method of canning the water in the canner should be simmering, about 180°F; when using the raw pack method the water in the canner should be about 140°F.
- Jars were placed directly on canner bottom rather than on canning rack.

- Air was exhausted too vigorously during the 10 minutes of venting.
Adjust heat to keep a steady but gentle-to-moderate flow of steam coming from the vent pipe.
- Pressure fluctuated too much during processing due to:
 - unsteady heat source
 - Steam leakage from the pressure canner
 - Rapid temperature change, such as drafts or air conditioner blowing on canner
- The adjustable pressure regulator on a Weighted Gauge Canner was allowed to rock too vigorously during processing time.
Adjustable pressure regulator should rock continuously but gently.
- Pressure in canner was not allowed to drop naturally after processing time expired.



Why do some of the jars not seal properly?

- Jars were packed too solidly with food or were overfilled.
Allow ½-inch headspace for all fruits and tomatoes, 1-inch for vegetables, meat, and fish, and 1¼-inch for poultry. This is necessary since food expands during canning.
- Failure to work out air bubbles from the filled jars before placing the lids and bands.
- Food particles were left on the sealing surface of the jar.
Wipe the sealing surface with a damp cloth or paper towel before placing lids on the jar.
- Ring bands were not adjusted according to manufacturer's directions.
Bands should be tightened finger-tip tight.
- Air was exhausted too vigorously during the 10 minutes of venting.
Adjust heat to keep a steady but gentle-to-moderate flow of steam coming from the vent pipe.
- Pressure fluctuated too much during processing due to:
 - unsteady heat source
 - Steam leakage from the pressure canner
 - Rapid temperature change, such as drafts or air conditioner blowing on canner
- The adjustable pressure regulator on a Weighted Gauge Canner was allowed to rock too vigorously during processing time.
Adjustable pressure regulator should rock continuously but gently.
- Pressure in canner was not allowed to drop naturally after processing time expired.

(Continued on next column)

Jars that do not seal can be salvaged as long as corrective action is taken within 24 hours of the initial processing. The food can be used at once, refrigerated and consumed within a couple days, frozen, or can be reprocessed. If reprocessing is desired, remove the lid and check the jar sealing surface for nicks. Change the jar if necessary. Heat the food, clean and warm jar, add a new lid, and reprocess using the same processing method and time.



Why do some lids become unsealed during storage?

Lids may seal during processing and then unseal during storage for the following reasons:

- Food was processed incorrectly (wrong method or insufficient processing time or pressure).
- Hairline cracks in jars permitted entry of spoilage organisms during storage.
- Tightening screw band after processing dislodged the seal.
- Loss of liquid during processing caused food particles to lodge on rim of jar.
- Thin or uneven layer of sealant on canning lid.

All jars that become unsealed during storage should be considered spoiled and discarded.



Why does the underside of my metal lid sometimes discolor?

The black deposit sometimes found on the underside of a lid is caused by natural compounds in some foods which are released from the food by the heat of processing.

This deposit is harmless and does not indicate spoilage

For more canning information and recipes for your Presto® Pressure Canner, visit
GoPresto.com

National Presto Industries, Inc.

3925 North Hastings Way
Eau Claire, Wisconsin 54703