### **PRESSURE CANNING (LOW-ACID FOODS)**

### **STEP-BY-STEP FRESH PRESERVING OF LOW-ACID FOODS**

Vegetables, meats, poultry and seafood are such a natural part of family meal planning that preserving these low-acid foods ensures an economical and well-balanced diet throughout the year. Low-acid foods are easy to preserve, yet require special handling to eliminate the risk of spoilage caused by the bacteria *Clostridium botulium* and its toxin-producing spores. In order to prevent this type of spoilage, low-acid foods MUST be heat processed at a temperature of 240°F for the established processing time in a tested fresh preserving recipe.

Pressure canning is the only way to fresh preserve at 240°F. (Boiling water canners heat to only 212°F which is the temperature of boiling water.) Because *Clostridium botulinum* spores do not grow in the presence of acid, high-acid foods can be safely processed in a boiling-water canner.

Low-acid foods include vegetables, soups, stews, stocks, meats, poultry and seafood. Recipes that combine high-acid foods, such as tomatoes, with low-acid foods, such as vegetables or meats, are considered low-acid foods.

Follow the directions below that walk you through how to can meat, how to can vegetables and how to can other low-acid foods.

### **YOU WILL NEED**

* Tested preserving recipe such as one found in the [Ball Blue Book® Guide to Preserving](https://www.freshpreserving.com/ball-blue-book--guide-to-preserving-%2837th-edition%29-1034026VM.html) or our [online recipe list](https://www.freshpreserving.com/recipes/).
* Pressure canner (when preserving low-acid foods such as vegetables, meats, poultry and (food).
* Glass preserving jars, lids and bands (always start with new lids).
* Common kitchen utensils, such as wooden spoon, ladle and funnel.
* Fresh vegetables, meat, poultry or seafood and other quality ingredients.

### **OTHER HELPFUL PRESSURE CANNING UTENSILS**

* [Jar Lifter](https://www.freshpreserving.com/ball-secure-grip-jar-lifter-1034000.html)
* [Secure-Grip Hot Jar Handler](https://www.freshpreserving.com/ball-secure-grip-hot-jar-handler-for-mason-jars-1034015VM.html)
* [Sure Tight - Band Tool](https://www.freshpreserving.com/ball-sure-tight-band-tool-for-mason-jars-1033999.html)

### **PRESSURE CANNING DIRECTIONS**

1. READ through recipe and instructions. Assemble equipment and ingredients. Follow guidelines for recipe preparation, jar size, preserving method and processing time.
2. CHECK jars, lids and bands for proper functioning. Jars with nicks, cracks, even rims or sharp edges may prevent sealing or cause jar breakage. The underside of lids should not have scratches or uneven or incomplete sealing compound as this may prevent sealing. Bands should fit on jars. Wash canning jars, lids and bands in hot, soapy water. Rinse well. Dry bands.
3. HEAT jars in hot water, not boiling, until ready for use. Fill a large saucepan or stockpot half-way with water. Place jars in water (filling jars with water from the saucepan will prevent flotation). Bring to a simmer over medium heat. Keep jars hot until ready for use. You may also use a dishwasher to wash and heat jars. Keeping jars hot prevents them from breaking when hot food is added. Leave lids and bands at room temperature for easy handling.
4. PREPARE for pressure canning. Fill the pressure canner with 2 to 3 inches of water. Place over medium-high heat. Bring to a simmer. Keep water at a simmer until jars are filled and placed in canner. Follow manufacturer’s instructions for usage instructions.
5. PREPARE tested preserving recipe using fresh vegetables, meat, poultry or seafood and other quality ingredients.
6. REMOVE hot jar from hot water, using a Jar Lifter, emptying water inside jar. Fill jar one at a time with prepared food using a Jar Funnel leaving headspace recommended in recipe. Remove air bubbles, if stated in recipe, by sliding the Bubble Remover & Headspace Tool or rubber spatula between the jar and food to release trapped air and ensure proper headspace during processing. Repeat around jar 2 to 3 times.
7. CLEAN rim and threads of the mason jar using a clean, damp cloth to remove any food residue. Center lid on jar allowing sealing compound to come in contact with the jar rim. Apply band and adjust until fit is fingertip tight. Place filled jars in canner until recipe is used or canner is full. Check that water level is about 2 to 3 inches high or that recommended in manufacturer’s manual.
8. LOCK the pressure canner lid in place, leaving vent pipe open. Adjust heat to medium-high. Allow steam to escape through vent pipe. Once there is a steady stream of steam escaping, vent for 10 minutes to ensure there is no air (only steam) left in canner. Close vent using weight or method described for your canner. Gradually adjust heat to achieve and maintain recommended pounds of pressure.
9. PROCESS canning jars at the recommended pounds pressure for the processing time indicated in tested preserving recipe, adjusting for altitude ( [see altitude chart](https://www.freshpreserving.com/on/demandware.static/-/Sites-BALL-Library/default/dw586c0012/assets/canning/pdf/AltitudeCharts.pdf)). Cool pressure canner by removing from heat. Do not remove the weighted gauge. Let canner stand undisturbed until pressure returns to zero naturally. Follow manufacturer’s instructions. Wait 10 minutes. Remove weight and unlock lid, tilting away from yourself. Wait 10 more minutes to allow jars to begin to cool.
10. REMOVE jars from pressure canner and set upright on a towel to prevent jar breakage that can occur from temperature differences. Leave jars undisturbed for 12 to 24 hours. Bands should not be retightened as this may interfere with the sealing process.
11. CHECK lids for seals. Lids should not flex up and down when center is pressed. Remove bands. Try to lift lids off with your fingertips. If the lid cannot be lifted off, the lid has a good seal. If a lid does not seal within 24 hours, the product can be immediately refrigerated. Clean canning jars and lids. Label and share then store in a cool, dry, dark place up to 1 year.
12. Don't forget to celebrate what you make on [Facebook](https://www.facebook.com/BallCanning/app_426166774080900)!

After many years of research, it was determined that preheating Ball® and Kerr® lids is no longer necessary. The sealing compound used for our home canning lids performs equally well at room temperature as it does pre-heated in simmering water (180 degrees Fahrenheit). Simply wash lids in hot, soapy water, dry, and set aside until needed.

NOTE: Instructions on lid, cap, and jar packaging is changed. However, retail stores may stock packaging having either instruction.