

WATER BATH CANNING

WHAT IS WATER BATH CANNING?

- a. It is a shorter, lower-temperature canning process that is ideal for high-acid foods.
- b. The process involves completely submersing sealed containers (usually jars) in a large pot of boiling water for a specified period of time, determined by the type of food inside the jar and the size of the jar.
- c. Water bath canning is only suitable for highly acidic foods (i.e. they have a low pH level). Low acid foods (i.e. foods with a high pH level) should be canned in a pressure canner.
- d. The temperature will never exceed 100°C (212°F) because it can't – that's the maximum temperature the boiling water around the jars can reach.
- e. The process kills off many yeasts, molds, and bacteria to ensure the food is preserved for a longer period of time.
- f. The process also drives out the air in the food and in the jar that could cause spoilage.
- g. A by-product of the method is that it drives out air and leaves behind a vacuum, which seals the jar.

WHAT FRUITS AND VEGETABLES ARE BEST PRESERVED USING A WATER BATH APPROACH?

- Beans
- Peas
- Peppers
- Winter squash
- Pickled onions
- Apples
- Berries
- Peaches
- Carrots
- Asparagus
- Corn
- Beets
- Cabbage
- Apricots
- Cherries
- Pears

WHAT EQUIPMENT IS NEEDED?

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| • Canning jars and lids | • Canning funnel |
| • Steel ladle | • Jar lifter with rubber grips |
| • Kitchen tongs | • Magnetic lid lifter & bubble remover |
| • Large pot | • Canning rack |
| • Clean kitchen towels | • Food Strainer |



WATER BATH STEP-BY-STEP INSTRUCTIONS

1. Read through the 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, uneven rims or sharp edges may prevent sealing or cause jar breakage. The underside of lids should not have scratches, uneven, or incomplete sealing compound as this may prevent sealing. Bands should fit on jars. Wash jars lids and bands in hot, soapy water. Rinse well. Dry bands.
3. Heat home canning jars in hot water, not boiling, until ready for use. Fill a large saucepan or stockpot halfway with water. Place jars in water (filling jars with water from the saucepan will prevent floatation). 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 boiling water bath canner by filling half full with water. Keep water at a simmer while covered with lid until jars are filled and placed in canner. Be sure your rack is resting on the rim of the canner or on the bottom, depending on the type of rack you are using. The pot (canner) must be large enough to fully surround and immerse the jars in water by 1 to 2 inches and allow for the water to boil rapidly with the lid on. If you don't have a rack designed for home preserving, use a cake cooling rack or extra bands tied together to cover the bottom of the pot.
5. Prepare tested preserving recipe using fresh produce and other quality ingredients.
6. Remove hot jar from hot water, using a jar lifter, emptying the water inside the jar. Fill one jar at a time with prepared food using a jar funnel, being sure to leave the recommended headspace ($\frac{1}{4}$ inch for soft spreads such as jams and jellies; $\frac{1}{2}$ inch for fruits, pickles, salsa, sauces, and tomatoes). Remove air bubbles, if stated in the recipe, by sliding the bubble remover and 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 Mason jar rim and threads of jar using a clean damp cloth to remove any food residue. Centre lid on jar allowing sealing compound to come in contact with the jar rim. Apply band and adjust until the fit is fingertip tight. Place filled jars in canner until recipe is used or canner is full.
8. Lower rack with jars into water, covering jars by 1 to 2 inches.



9. Place the lid on water bath canner and bring the water to a full rolling boil. Begin processing time.
10. Process jars in the boiling water for the processing time indicated in tested preserving recipe. When processing time is complete, turn off the heat and remove the canner lid. Allow jars to stand in canner for 5 minutes to get acclimated to the outside temperature.
11. Remove jars from 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.
12. Check jar lids for seals. Lids should not flex up and down when the centre 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 reprocessed or refrigerated. Clean Mason jars and lids.
13. Label jars and store them in a cool, dry, dark place for up to 1 year.

FOOD PRESERVATION FAQs

Q – When packing jars, is the headspace really important?

A – Absolutely. It is important to leave the specified amount of headspace available in a jar as it allows for the proper vacuum seal to occur. If not enough space is left at the top of the jar, the food may expand to the point of being forced out from under the lid during processing. When this happens, the jar may not seal properly. If too much space is left at the top of the jar, the food may discolour and the jar may not seal properly.

Q – How long will canned food keep?

A – If the food has been canned and preserved properly, and stored in a cool, dry place, it should keep its flavour and freshness for at least one year. If products are stored in a damp or warm place (e.g. by the furnace or near the stove), they may lose their quality within a few weeks or months.

Q – Do jars need to be sterilized before processing?

A – It's always best practice to go the safe route and sterilize everything. But, if jars are filled with food and placed in a water bath for more than 10 minutes, they will become sterilized through that process. If the jars were going to be processed in a boiling water bath for less than 10 minutes, they would need to be sterilized for at least 10 minutes prior to being filled.



Q – Should liquid lost during processing be replaced?

A – The loss of liquid will not cause the food to spoil, so don't worry about replacing any water. The food above the liquid may darken slightly, but it will still be edible.

Q – Is it okay to reuse jar lids and bands?

A – Lids should never be used more than once because the sealing compound becomes indented through the initial use, which will prevent a future airtight seal. Screw bands may be reused unless they are badly rusted or the top edge is misshaped in such a way that it may not seal properly.

Q – Why do jars break during processing?

A – Canning jars will break for a number of reasons, including:

- Using commercial jars rather than jars designed specifically for canning.
- Using jars that have chips or hairline cracks.
- Putting jars directly on the bottom of a canner instead of on a rack.
- Putting hot food in cold jars.
- Allowing jars to bump against each other during processing.

