



Home Canning Water

ONLY USE DRINKING QUALITY (POTABLE) WATER THAT HAS BEEN PROPERLY DISINFECTED FOR DRINKING, COOKING, MAKING ANY PREPARED DRINK, WASHING DISHES OR FOR BRUSHING TEETH.

Boiling water canning is a method of preservation that kills vegetative bacterial cells, viruses and parasites, resulting in a shelf-stable product. Canning will not destroy other contaminants that may be in water such as heavy metals, salts, or other chemicals. Boiling water canning may be used as a method for preserving water, but because water is low in acid, certain precautions must be taken.

- Water for canning must be of acceptable drinking quality, i.e., potable, and free of filth or debris. See references at the end of this document for disinfecting water prior to canning.
- Water for canning must be free of nutrients. Boiling water canning does not destroy the spores of *Clostridium botulinum*, so can pure water only.

Follow standard boiling water canning procedures. The procedure below requires that water be pre-boiled for 5 minutes prior to filling jars; this will help to ensure purity. The boiling water canning process for filled jars will also help to ensure that jars seal, and remain sealed, throughout the storage time.

Boiling Water Canning of Water

The boiling water canner must be deep enough so that the filled jars will have 1 to 2 inches of water boiling over the tops of the jars during processing. It must have a rack in the bottom and a lid.

Prepare home canning jars by washing in hot, soapy water and rinsing well. Keep warm until ready to use. (You can do this by filling jars with clean hot water or submerging them in warm water in your boiling water canner.) Prepare lids for use by following the manufacturer's directions on the package.

Put enough water in the canner and raise the water temperature to 180 degrees F before placing filled jars of hot water (see below) into it for processing.

https://nchfp.uga.edu/publications/uga/using_bw_canners.html

Bring water to be canned to a rolling boil for five minutes regardless of altitude. Fill boiled water into the warm, clean jars, leaving ½-inch headspace. A jar funnel can be used to help prevent spills. Wipe jar rims with a clean, dampened paper towel. Apply and adjust prepared lids and process in boiling water according to Table 1 below. (Start timing the process after the water in the canner comes to a boil around the filled jars.)

At the end of the process, turn off the burner and remove canner lid, turning it away from your face to avoid steam burns. Allow the canner to cool 5 minutes, then remove jars from the canner and place on a rack or towel out of cool drafts.

Allow jars to sit undisturbed for 12 to 24 hours, until cool and the lids have sealed. Follow your lid manufacturer's directions to determine that the lids have vacuum sealed before storing the jars of water.

Table 1. Recommended process time for Water in a boiling-water canner.				
		Process Time at Altitudes of		
Style of Pack	Jar Size	0 – 1,000 ft	1,001 – 6,000 ft	Above 6,000 ft
Hot	Pints or Quarts	10 minutes	15	20

IMPORTANT NOTE: The process time is not a known *C. botulinum* spore kill by heat. You should be certain that your water does not contain any added or residual nutrients.

###

Information on Preparing and Storing an Emergency Water Supply other than Canning

- Federal Emergency Management Agency (FEMA) and the American Red Cross. *Food and Water in an Emergency*. <https://www.fema.gov/pdf/library/f&web.pdf>

- continued -

Additional References for Disinfecting Water Supplies in Emergencies

- Environmental Protection Agency (EPA). Emergency Disinfection of Drinking Water.
<https://www.epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water>
- Centers for Disease Control and Prevention (CDC). Making Water Safe in an Emergency.
<https://www.cdc.gov/healthywater/emergency/drinking/making-water-safe.html>

Authors:

Donald W. Schaffner, Ph.D., Distinguished Professor and Extension Specialist, Rutgers, The State University

Matt Cheever, Senior Product Development Engineer, Newell Brands

Brian A. Nummer, Ph.D., Professor and Extension Food Safety Specialist, Utah State University

Barbara H. Ingham, Ph.D., Professor and Extension Food Safety Specialist, University of Wisconsin-Madison

Teagan Williams, Associate Product Development Engineer, Newell Brands

Elizabeth L. Andress, Ph.D., Professor and Extension Specialist, University of Georgia

Appreciation is expressed to the Product Development Engineers at Newell Brands for collecting the heat penetration data and calculating the sterilizing values for various tested processes.