

Canning Tuna and Salmon at Home

Prepared by Food and Nutrition Specialists
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Whether you caught the fish or bought it, the problem is the same—you usually cannot use that big fish completely while it is still fresh. One way to keep salmon and tuna for use later on is to preserve them by canning. Home-canned fish can be of excellent quality.

Pressure-canning methods described here were recommended by Edward W. Harvey of the Oregon State University Seafoods Laboratory at Astoria.

Handle Fish Promptly

Fish can be canned either fresh or after smoking. Either way they need to be handled quickly and correctly, as they spoil rapidly. When fish are caught, remove viscera at once and avoid bruising and exposure to the sun or other heat.

Digestive juices of fish caught while feeding cause the flesh to become soft and flabby, so it is especially important to clean ocean-caught fish soon. If they must be stored for more than a day without cooling, rub salt into the body cavity.

Use Safe Canning Methods

Home-canned fish can be a safe product of excellent quality when proper canning methods are used.

The potential for *Clostridium botulinum* bacteria to grow in improperly canned foods is always present. This bacteria produces a toxin (poison) that causes botulism, a severe illness that often results in death.

It takes higher-than-boiling temperatures to make sure of killing the *Clostridium botulinum* bacteria. For

this reason, the jars of fish must be processed in a pressure canner. (Never process fish in a boiling water bath or in the oven.) The canner must be operated correctly for a safe product. Carefully study these guidelines for safe use of your pressure canner.

1. Use a pressure canner that is in good working condition.

2. Be sure the pressure gauge on the canner is accurate. Check it for accuracy at least once a year.

3. Re-read the directions that came with the pressure canner.

4. Have the proper amount of water in the canner.

5. Wait until all air has been vented from the canner before closing petcock or putting on weighted gauge to let pressure rise. (Read canner directions for venting time required.)

6. Process at 10 pounds pressure. If you live at altitudes high above sea level, increase the pressure. At 2,000 feet, process at 11 pounds pressure; at 4,000 feet, use 12 pounds pressure.

7. Begin counting the processing time after the correct pressure is reached. Write down the time you start processing—do not guess at it.

8. If jars fail to seal or if you are doubtful as to whether proper time or temperature was used, reprocess in canner for the *entire* time; or immediately refrigerate the fish and consume within three to five days; or freeze in tightly sealed half-pint or pint containers.

9. Contact your county Extension office if you have any questions on the operation of your canner. Do not guess at anything.

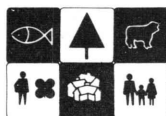
Albacore Tuna

Either fresh or frozen tuna are suitable for canning. If frozen tuna are used, allow ample time for them to thaw before dressing. Blood in tuna detracts much from the appearance of the canned product. Tuna should be thoroughly bled when caught, and most commercial fishermen do this promptly.

Tuna ordinarily are canned quite differently from other fish. Usually they are precooked to remove most of the natural body oil, which tends to be bitter. After

the precooking and removal of oil, clean and pack the tuna. Add suitable oil, oil and water, or water to supply flavor and improve the texture; otherwise it would be very firm and dry.

Tuna may be canned in raw chunks in the same manner as salmon. This method provides safe and nutritious food, but it does not make an attractive pack. Many persons do not care for the unusual, rich flavor of raw tuna packs.



OREGON STATE UNIVERSITY
**EXTENSION
SERVICE**

Extension Service, Oregon State University, Corvallis, Henry A. Wadsworth, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U. S. Department of Agriculture, and Oregon counties. Extension invites participation in its programs and offers them equally to all people, without discrimination.

Instructions

1. Clean fish well. Remove viscera or entrails. Wash well in cold water. Allow blood from stomach cavity to drain.

2. Place tuna (cut in half if necessary) belly down on a rack or metal tray or screen which will hold it an inch or more off the bottom of a large baking pan.

3. Bake in a low temperature oven (225° to 250° F) for 2½ to 4 hours, depending on the size of the fish, until cooked through. If using a thermometer, cook to a center temperature of 165° to 175° F.

4. Cool fish to room temperature. Then store overnight, or 12 to 24 hours, in a cool room or refrigerator to firm the meat.

5. Remove fish from cool room and peel off skin with knife, lightly scraping surface to remove blood vessels and any discolored flesh.

6. Separate tuna meat into four quarters by first breaking apart the two halves from back to belly, removing backbone, and then separating each of these halves into quarters. Pull off and cut out all bones and fin bases.

7. Scrape and cut out all dark brown flesh, leaving four cleaned, all-white loins or meat sections.

8. Cut sections crosswise with a very sharp knife into lengths suitable for the jars to be packed.

9. Thoroughly wash and rinse jars and lids. Inspect jars carefully for cracks or nicks that would prevent sealing.

10. Fit cut pieces into jars. Press down gently to make a solid pack. Allow ¾ to 1¼ inch space at top of jars.

11. Add salt and oil to each container. Cottonseed, soya, or other vegetable oil may be used. If oil is not available, water may be substituted. Or, a pack can be made using half oil and half water. (See table.)

12. Remove any oil or fish material from the sealing surface.

13. Adjust lids on glass jars, following directions of the manufacturer.

14. Place jars at once into warm water on a rack in pressure canner. Be sure to use proper procedures in using the pressure canner (see table).

15. Before storing jars of tuna, cool them on towel, newspapers, or rack away from drafts.

TUNA CANNING TABLE

Container	Salt	Oil	Water	Oil and water	Process 240° F. 10 lbs. pressure
½ pint jar	⅝ tsp.	1½-2 oz. (4 tbsp.)	Same as oil	Same, equal parts	90 minutes
1 pint jar	1¼ tsp.	2½-3 oz. (5-6 tbsp.)	Same as oil	Same, equal parts	100 minutes

Salmon (Raw or Smoked)

1. Thoroughly wash and rinse pint jars and lids. Inspect jars carefully for cracks or nicks that would prevent sealing.

2. Dress salmon by removing head, tail, fins, scales, and entrails. Wash carefully. Remove all blood.

3. Cut salmon into suitably sized pieces for jars to be packed. Allow for headspace of ¾ to 1¼ inch.

4. Pack raw fish tightly in the container, skin toward outside of jar.

5. Add ¾ to 1 teaspoon salt to pint jar.

6. Adjust lids on glass jars, following directions of the manufacturer.

7. Place jars at once in warm water in pressure canner. Be sure to use proper procedures in using the pressure canner. Process 100 minutes at 240° F or 10 pounds pressure to sterilize and soften bones. (Steelhead trout require one-fourth longer cooking time for softening bones to make them edible.)

8. Smoked salmon should be processed at the same time and pressure as raw fish.