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in a stock pot, pan, or boiling water canner (8-quart volume or larger). Wash your gloved hands well. Carefully add water until the level is 1 inch above the jars. Put a lid on the pot and heat the water to boiling. Boil for 30 minutes to detoxify the food. Cool and discard the food and lids. Wash jars and pot.

Spray or wet contaminated surfaces (such as counters and cutting boards) with a household chlorine bleach solution (1 part unscented 5% to 6% sodium hypochlorite bleach to 5 parts clean, room temperature water) and let stand for 30 minutes. Wipe up treated spills with paper towels and put them in a plastic bag before discarding in the trash. Rinse surfaces.

Soak metal utensils in a mild chlorine solution (1 teaspoon bleach to 1 quart room temperature water) for 30 minutes. Rinse.

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## If the food shows no signs of spoilage

An invisible toxin can form if canning instructions haven't been followed exactly. If you're uncertain, heating before eating gives an extra margin of safety. There are two ways to destroy the *Clostridium botulinum* toxin. One is to boil canned seafood for 10 minutes on the range. The other is to heat home-canned fish in the oven, using the instructions below. The quality may be better for most uses because oven-heating fish can prevent texture changes.

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## Oven heating fish for safety

- Open the jar of fish and examine for spoilage as described above. Wash the lid before discarding or reusing it on the opened jar.
- Insert a meat thermometer upright into the center of the jar. The tip should be at the approximate center of the fish.
- Cover the jar loosely with foil and place in an oven preheated to 350°F.
- Remove the jar from the oven when the thermometer registers 185°F. It will take about 30 to 35 minutes to reach this temperature.
- Let the jar stand at room temperature for about 30 minutes. This will let the temperature become uniform throughout the jar.
- Serve the fish hot or refrigerate immediately for later use.
- Note: If you prepare canned fish in a casserole, bake at 350°F and check the temperature at the end of the cooking time as described above for jars.

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## Questions frequently asked

### ***Is it safe to can shellfish that show no sign of life?***

It's safe but not advisable. Although any harmful microorganisms and toxins would be destroyed during processing, the quality of the product most likely would be poor. For example, if crabs die before cooking, the meat may look off-color after canning.

To get the best quality product, raw shellfish (oysters, clams, and mussels in the shell) should be alive until you can them. Look for tightly closed shells. If the shells are gaping open or don't close when you tap them or put them in cold water, discard the shellfish.

### ***Is it safe to process seafood in a boiling water canner?***

No. The temperature must be above the boiling point of water to destroy *Clostridium botulinum* spores. If you don't process seafood in a pressure canner, these spores will grow and produce the toxin that causes botulism.

### ***What causes canned crab to darken?***

Darkening is caused by changes in blood pigments. Canned crab won't be as light in color as fresh crab. However, you can keep the color as light as possible by adding acid (vinegar or lemon juice) to the cooking water or to the packed jars before processing.

Another way to minimize darkening is to "bleed" live crab before canning by removing the backs, cleaning away the viscera and gills, and soaking the clusters of legs (sections) in running water to remove blood.

### ***Is it safe to leave salt out of canned seafood?***

Yes. Salt is added only as a flavoring. Add an amount that's suitable for your own taste.

### ***Glasslike crystals sometimes form in canned salmon. Are they harmful?***

No. These crystals of magnesium ammonium phosphate are safe to eat. There's no way for the home canner to prevent their formation, but they usually dissolve when heated.

### ***Can previously frozen fish be canned?***

Frozen fish may be canned. Thaw to refrigerator temperature first.

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Prepared by Carolyn A. Raab, Extension food and nutrition specialist, Oregon State University, in consultation with Extension food specialists at Washington State University and the University of Idaho. Research to develop a safe oven method for reheating canned fish was conducted by Margy Woodburn, professor emeritus, Nutrition and Food Management Department, Oregon State University. Steve Berntsen, former OSU Extension seafood processing specialist, assisted with research to revise crab-canning procedures. Research to verify that seafood is safe when canned as directed was funded by the OSU Sea Grant College Program, under grant 04-7-158-44085.

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Published and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914, by the Oregon State University Extension Service, Washington State University Extension, University of Idaho Extension, and the U.S. Department of Agriculture cooperating.

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Revised November 2003. Revised November 2011.

\$1.50