



Home Food Preservation



Canning Foods Safely

Fresh foods are perishable in part because they contain a high amount of water. Canning preserves fresh food by removing oxygen, destroying enzymes, and preventing the growth of bacteria, yeasts and mold.

Proper Canning Practices

- Carefully select and wash fresh produce
- Peel according to recipe
- Hot pack many foods for best quality product
- Add acid (lemon juice or vinegar) when required
- Use acceptable jars and self-sealing lids
- Process filled jars in a boiling-water or pressure canner for the correct period of time



Quick Facts

- Pressure canning is the only safe method for canning meat, poultry, seafood and low acid vegetables.
- The bacteria, *Clostridium botulinum*, is only destroyed in low-acid foods when properly processed in a pressure canner.
- *C. botulinum* spores survive hours at boiling water temperatures in low acid foods.

Botulism

- Illness caused by ingestion of foods containing the neurotoxin produced by *C. botulinum*
- Most often associated with improperly processed home canned foods
- Symptoms include:
 - Weakness and vertigo
 - Blurred, double vision
 - Difficulty swallowing, speaking and breathing
 - Digestive upset
 - Possible death from suffocation

Food Acidity

Low acid foods have a pH above 4.6; the higher the number the lower the amount of acid.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14



- The pH of a food indicates how much acid is present; the lower the pH the more acid is present
- Low-acid canned foods are not acidic enough to prevent *C. botulinum* growth
- Foods may be naturally acidic or acidified by pickling, fermenting or directly adding acid.
- Adding lemon juice citric acid or vinegar increases foods' acidity by lowering pH.
- **Low acid foods:** Vegetables, meats, seafood and poultry
- **High acid foods:** Sauerkraut, pickles, jams and jellies

Pressure Canners

Modern pressure canners should be equipped with a:

- Jar rack
- Gasket
- Dial or weighted gauge
- Automatic vent/cover lock
- Vent or steam port with counterweight or weighted gauge
- Safety fuse



Remember
All pressure canners must be vented for 10 minutes before they are pressurized.

Canning Recommendations

After filling jars:

- Release air bubbles by inserting a flat plastic (not metal) spatula between food and jar. Slowly turn jar and move spatula up and down allowing bubbles to escape
- Adjust headspace if needed
- Clean jar rim (sealing surface) with dampened paper towel
- Place lid, gasket down, onto cleaned jar-sealing surface
- Do not retighten lids after processing

Unsafe Canning Methods

- Open-kettle canning
- Process freshly filled jars in conventional ovens, microwave ovens, and dishwashers,
- Using steam canners
- Using canning powders
- Using jars with wire bails and glass caps
- Using one piece zinc porcelain-lined caps

Jars and Lids

- Regular and wide-mouth Mason type, threaded, home canning jars with self-sealing lids are the best choice
- With careful use and handling, Mason jars may be reused but require new lids each time
- Before use, wash empty jars in hot water and rinse well, or wash in a dishwasher
- All jams, jellies, and pickled products processed less than 10 minutes should be filled into sterile empty jars.

