

or tilted. If steam spurts out, pressure is not yet down.)

9. Remove canner cover, tilting it away from your face.
10. Remove jars from canner. If liquid boiled out of jars during processing, do not open them to add more. **Do not retighten screw bands.**
11. Place hot jars upright on a rack, a towel, or folded newspaper to cool. Leave space between them for air to circulate. Keep them out of drafts.

Check for Seals

Vacuum seals form as the jars cool. When jars are cool (12 to 24 hours after processing), check the seals. If the lid is depressed or concave and will not move when pressed, it is sealed.

When jars are thoroughly cool (24 hours after processing), carefully remove screw bands. If a band sticks, loosen it by covering it for a moment with a hot, damp cloth. Bands left on jars during storage may rust, making later removal difficult.

If You Find an Unsealed Jar

If, within 24 hours after processing, you find an unsealed jar, take one of the following steps:

- Refrigerate the food and use it within 2 to 3 days.
- Freeze the food. (Drain vegetables before freezing.)
- Reprocess the food. Remove lids, empty the contents of the jars into a pan, heat to boiling, pack into clean, hot jars, and put on new lids. Process again for the full time. The eating quality of twice-processed food may be poor.

If more than 24 hours have gone by since processing, discard the food. It may have already started to spoil.

The causes of sealing failure include:

- Failure to follow manufacturer's directions for preparing lids.
- A chip on the jar rim.
- Food particles on the jar rim. Al-

ways wipe rim clean before putting on lid.

- Leaving way too much headspace.
- Leaving too little headspace. If jars are filled too full, food may boil out during processing, leaving particles on the jar rim that prevent a seal from forming.
- During processing, allowing pressure in a pressure canner to fluctuate; after processing, opening the vent before pressure has dropped to zero or putting the canner under cold water to lower pressure quickly. In each of these cases, liquid will be lost from the jars and food particles may be deposited on the jar rim, causing sealing failure.
- Retightening screw bands after removing jars from canner. Do not retighten bands.
- Reusing lids. Lids should be used only once.
- Defective lids.

Label and Store Sealed Jars

Label sealed jars with contents and date. Store them in a cool, dry, dark place. Properly stored canned foods will retain their quality for at least a year.

Avoid storing canned foods near hot pipes, a range, a furnace, or in direct sunlight. Canned foods stored in a warm place may lose quality in a few weeks or months, depending on the temperature.

If canned foods are stored in a cold place, protect them from freezing by wrapping the jars in newspaper or covering them with a blanket. Canned foods that do freeze may be used as long as freezing does not break the seal. However, they may not be as

palatable as properly stored canned foods.

If canned foods are kept in a damp place, lids may rust.

Check Canned Foods For Spoilage

Always be on the alert for signs of spoilage. Examine unopened jars for leakage, bulging lids, or loss of seal. Bulging or loss of seal indicates gas formation inside the jar. As you open the jar, look for spurting liquid. After opening, check for gassiness, cloudy liquid,⁵ disagreeable odor, or mold. **Do not taste food that shows any sign of spoilage. Dispose of the food so that neither humans nor animals will eat it.**

It is possible for improperly processed low-acid foods to contain botulism toxin without showing signs of spoilage. **Therefore, unless you are sure of your canning methods and pressure gauge, boil home-canned, low-acid foods before tasting. Boiling will destroy botulism toxin.** Heat vegetables and stewed tomatoes containing celery, onion, or green pepper to boiling; cover and boil 10 minutes, stirring occasionally. Boil spinach and corn 20 minutes.

Black deposits on the underside of a lid are **not** a sign of spoilage. The underside of canning lids is coated with enamel. If there are imperfections (for example, tiny scratches or pinholes) in the enamel, natural com-

⁵ Although cloudy liquid may be a sign of spoilage, it could instead be due to minerals in hard water or starch from overripe vegetables. If liquid is cloudy, check for other evidence of spoilage. If there are no other signs of spoilage, boil the food. Do not use any food that foams or has a disagreeable odor during heating.

