



Ensuring a Good Seal on Canned Goods

For a safe, high-quality home canned food a strong vacuum seal is essential. This can only be achieved by properly processing the food in a pressure, boiling water or atmospheric steam canner.

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What is a vacuum seal?

When you fill a jar with food and apply a lid at room temperature, the atmospheric pressure is the same inside the jar as it is outside the jar. When the jar is heated in boiling water, atmospheric steam, or under pressure, the air and food inside the jar expands forcing air out of the jar. As the jar cools and the contents shrink, a

partial vacuum forms. There is a state of negative pressure inside the jar. The sealing compound, found on the underside of the lid, prevents air from re-entering the jar so that no microorganisms can enter the jar to re-contaminate the food.

Achieving a Good Seal

- Use standard mason jars, lids, and screw bands.
- Use jars that are free of nicks, cracks or dips on the sealing surface.
- Use new lids.

- Inspect lids for dents scratches or a narrow or incomplete ring of sealant.
- Use correct headspace—usually ¼ inch for jams and jellies, ½ inch for tomatoes, fruit, pickles, 1 inch for vegetables and meat, and 1¼ inch for chicken.
- Use a dampened paper towel to remove food particles from the jar sealing surface.
- Turn screw bands firmly tight. This is sometimes described as fingertip tight. If bands are too tight, air cannot vent during processing and lids will buckle; if bands are too loose, vacuum will be low and seals may fail now or later.
- Use a jar lifter to insert and remove jars from canner. Position the jar lifter on the neck of the jar below the screw band. Use recommended processing methods and times.
- Wait 12 to 24 hours to test if jars are sealed.
- Reprocess jars that did not seal within 24 hours. Use new lids and reprocess for the original processing time. (Or freeze product or refrigerate and use after 3 days.)
- Remove screw bands when jars are cool. Wash jars, rinse and dry before storing.
- Store jars without replacing screw bands.
- Avoid extreme changes in storage temperatures. Store between 50°F and 70°F.

Testing the Seal

- Wait 24 hours or overnight for jars to cool.
- Press the center of the lid. If it is down and will not move, it is sealed.
- If the lid looks concave (curved down), it is sealed.
- Pick the jar up by the lid; the lid should not come off.
- Tap the lid with a spoon. A clear ringing sound indicates the jar is sealed.

However, if food has expanded in the jar and is touching the lid, the lid may still be sealed even with a dull sound.

What to Do If Jar is Not Sealed

If you choose to reprocess an unsealed jar, it must be done within 24 hours.

- Remove the band and lid.
- Check for food deposits on the rim of the jar or lid.
- Check jar rim for cracks or nicks. Put food in a new clean jar if necessary.
- Wipe rim, replace lid and band.
- Reprocess for designated time.

- Label food that has been re-canned and use these foods first. It will be softer in texture and lower in nutritional value than food processed only once.
- Instead of reprocessing the food, place unsealed jar in the refrigerator and use within 3 days or place food in a plastic storage container and freeze.