



Canning Safety Rules

General Rules for Safe Canning

1. Follow a scientifically tested recipe exactly as written (see exceptions on page 2).
2. Adjust for altitude when you can over 1000 feet. For boiling water canners you will need to add more time, for pressure canned foods you increase the pressure. Follow scientifically tested instructions.
3. Unless you are sure everything was perfect during the processing of pressure canned, low acid foods, boil the food for 11 minutes before eating them (add 1 minute for every 1000 feet above sea level).

Potentially Deadly Canning Practices

| What | Why it is Unsafe |
|---|---|
| Making up own canning recipe. | Without scientific testing, you will not know how long the product needs to be processed to be safe. |
| Adding extra starch, flour or other thickener to recipe. | This will change the rate of heat penetration into the product and can result in undercooking. |
| Adding extra onions, chili, bell peppers, or other vegetables to salsas. | The extra vegetables dilute the acidity and can result in botulism poisoning. |
| Using oven instead of water bath for processing. | The product will be under processed since air is not as good a conductor of heat as water or steam. The jars also may blow up. |
| Not making altitude adjustments. | Since boiling temperatures are lower at higher altitudes, the products will be undercooked. |
| Not venting pressure cooker first. | Lack of venting can result in air pockets which will not reach as high a temperature. |
| Not having gauge pressure canners tested annually. | If the gauge is inaccurate, the food may be under processed. |
| Failure to acidify canned tomatoes. | Not all tomatoes have an adequate acid level, especially if the vine is dead. This can result in botulism poisoning. |
| Cooling pressure canner under running water. | Calculations for processing time include the residual heat during the normal cool-down period as part of the heat process. Hurrying this process will result in under processed food. |
| Letting food cool before processing in the recipes that call for “hot pack.” | The heat curves are based on the food being hot at the beginning of the processing. Product could be under processed |

Note: Canned meat, vegetable or salsa which was under processed can cause botulism.

Expensive but not Deadly Canning Practices

| What | Why it is Unsafe |
|---|--|
| Use of mayonnaise jars. | The jar may blow-up, especially if used in a pressure canner, and it may be more difficult to obtain a good seal. |
| Use of paraffin on jams & preserves. | Small air holes in the paraffin may allow mold to grow. If too much paraffin is used, the weight of the paraffin can pull it away from the sides of the jar, allowing mold to grow. Also paraffin can catch on fire if overheated. If have mold growth, throw out the product. |
| Cooling jars too slowly after removing them from the canner. (Examples: stacked jars close together, covering jars with a cloth during cooling) | There a group of harmless organisms called thermophiles which can survive canning. If jars are held hot for long periods, they can produce acid. This results in the defect known as “flat-sour.” Harmless, but very undesirable flavor. |
| Storing food longer than recommended. | Lengthy or overly hot storage will decrease quality and some nutrients but the product will still be safe to eat. |

Exceptions to the rule of never change anything in a canning recipe.

Feel free to:

- Change salt level in anything except pickles.
- Change sugar level in syrup used for canned fruit.
- Add extra vinegar or lemon juice.
- Decrease any vegetable except tomatoes in salsas.
- Substitute bell peppers, long green peppers or jalapeno peppers for each other in salsa recipes as long as do not increase the total amount.

Adapted for Oklahoma from original source: C.P. Brennand, (2007) Major canning sins, Fact Sheet FN-250.7, Utah State Cooperative Extension Service.



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