



Food Preservation: Setting the Record Straight on Canning Breads and Cakes

Breads and cakes canned in glass mason jars are not safe to eat. The risk for contracting a food-borne illness is high due to improper heating methods.

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Questions about canning breads and cakes in glass jars surfaced frequently this year at the Pennsylvania Farm Show in January, where Penn State Extension featured an education booth on home food preservation.

The actual process of baking bread or cake in a jar is not canning; the

product is baked in an open glass canning jar and then covered with a canning lid upon removing from the oven. There is no further canning process applied afterwards.

The bread and cake recipes may call for the addition of fruit, liquids or vegetables, which actually increases the moisture content, making a rich environment for microorganism survival. In addition, the practice does not remove all oxygen, leaving some oxygen available in the jar for microorganisms to thrive.

Using this technique to preserve breads and cakes is not recommended. Many cakes and quick bread recipes often have little or no acid resulting in a pH range above

4.6. A pH of this level will support the growth of pathogenic organisms that cause foodborne illnesses. There is a great concern about the hazardous bacterium called *Clostridium botulinum* (botulism) growing in these jars after the item has been baked. Botulism is often a fatal foodborne illness. There are reported cases each year of individuals who encountered botulism poisoning through improper canning practices.

Several studies over the years conducted by many universities have shown that some bacteria are heat-stable and can survive the baking process and then multiply in the breads during storage. Underbaked products were found to be another serious problem among available recipes for consumers to follow.

When breads and cakes in jars are made for sale commercially by companies, they use additives, preservatives, and processing controls to ensure the food safety of the finished product. Currently, there are no reliable or safe recipes for baking and sealing breads and cakes in canning jars, and storing them at room temperature for extended lengths of time.