



A weekly question/answer column

How Safe Are Home Canned Quick Breads?

Charlotte Brennand answers:*

Banana nut bread, zucchini bread or similar products should be either eaten fresh or frozen immediately. **DON'T CAN THEM AND DON'T EAT THEM IS SOMEONE GIVES YOU THESE HOME CANNED PRODUCTS!**

Bottled or canned quick breads are popular gifts and periodically instructions are printed on how to can breads. Here's why such products are unsafe:

- Products such as zucchini bread are baked in wide-rimmed canning jars and covered with lids and rings immediately after removal from the oven. As the mixture cools, a vacuum seal is formed. The product has the potential to cause botulism poisoning and kill or seriously impair the person eating the bread.
- Botulinum is found in soil throughout the world. The cleaning and processing of the ingredients that are used in bread would decrease its likelihood of being present, but by no means insure that it is not present. For example, it could be introduced into the batter in honey, on grated zucchini or dust in the mixing bowl. The organism *C. botulinum* itself is harmless; however, when conditions are right, it can form an extremely potent toxin.
- There are three factors that determine if *C. botulinum* will grow or not: a nonacid pH, moisture and an airless environment. Sealing the bread in a jar provides the necessary airless condition. A widely distributed recipe for canning zucchini bread has a 45 minute baking time at 325°F. The baking of the bread does not kill the *C. botulinum*. It is a spore forming organism and spores are resistant to destruction by heat or other environmental factors.
- Although no reported cases of botulism have been identified as being caused specifically by a home canned quick bread, the potential is there. The product meets all the necessary criteria for the organism to grow.

We have conducted research at Utah State University to see if it was possible to either raise or lower the acid level enough to control *C. botulinum* or add enough sugar to control water activity (the amount of moisture available to the microorganism) while still having a palatable zucchini bread. We were unable to formulate a safe product.

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