

# Cooking Food Storage

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Some essentials are needed to cook with the main food staples in long term food storage. These mostly are used to make breads from stored grains. The cooking essentials include salt, baking powder, baking soda, and yeast.

### Quality & Purchase

Purchase plain iodized salt, canned baking powder, boxed baking soda, and yeast in foil-lined sachets. Baking powder should be the double-acting version. It will have two acid salts to cause dough to rise immediately, then again when heated.

### Packaging

Store baking powder in its original sealed can. Store salt, baking soda, and yeast packets in their original containers placed inside another stronger packaging. Mylar-type bags work well for this use. Seal food packages inside bags using oxygen absorbers. Salt can be poured into a canning jar and sealed with oxygen absorbers. Yeast sachets can also be placed into canning jars and sealed without oxygen absorbers. Most yeast is packaged in nitrogen flushed Mylar-type sachets that is free of oxygen and moisture.

### Storage Conditions

Moisture can rapidly deteriorate all of these cooking essentials. Salt will cake, baking powder and baking soda will react and chemically change with moisture and yeast will lose viability. Temperature extreme will have less of a negative impact compared to moisture. These food items can freeze without harm. Excessive heat may lead to deterioration.

## Nutrition & Allergies

These cooking essentials are primarily used as a flavoring or leavening agent. They contribute very few calories or nutritional content. Salt will obviously contribute sodium to the diet. There are no major allergies associated with these foods. Some people are concerned with the use of aluminum salts in baking powders. Many brands are now available that do not use aluminum salts.

### Shelf Life

Iodized salt and baking powder have an indefinite shelf life when kept free of moisture and contamination. Baking powder has a best-if-used-by date of 18-24 months. A 1BYU study examined the leavening power of baking powders stored for up to 29 years in their original cans. All samples successfully leavened biscuits and demonstrated carbon dioxide evolution in lab experiments. Yeast in nitrogen flushed foil packaging has a best-if-used-by date of approximately 1 year. However, the viability of the yeast will last much longer than that provided it remains sealed and is stored in a cool to cold place.

### Use from Storage

Once opened store all of these foods away from moisture. Salt and baking soda can absorb odors from the storage area, even through the packaging. They will still remain acceptable for use for several years. Once opened, baking powder will last for approximately 6 months. To test opened baking powder, mix 1 tsp. in 1/3 cup warm water. If bubbles form, there is activity left in the baking powder. To test dried yeast activity, add 1 teaspoon sugar to 1/4 cup warm water (~100°F). Stir in 1 envelope yeast (2 1/4 tsp.) and let stand 10 minutes. If the yeast foams to the 1/2 cup mark, it is active.

### References

Lloyd, Ogden, Pike, and Utley. 2004. Effect of long-term storage on baking powder functionality. Institute of Food Technologists Annual Meeting. Poster 99F-2.

### Related Research