

## Freeze It Safely

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Freezing is one of the easiest, most convenient, and fastest methods of preserving foods. The extreme cold temperatures retard the growth of microorganisms and slow down chemical changes that affect quality or cause food to spoil.

The development of enzymes in fruits and vegetables is slowed during freezing but not destroyed. Enzymes must be inactivated or they can cause loss of color, vitamins, and flavor. To inactivate enzymes in vegetables, a process called blanching is done. This is essential to top quality frozen products. Blanching is the exposure of vegetables to boiling water or steam for a brief period of time. The vegetables are then cooled quickly so they do not overcook. Color changes in fruits can be controlled by using chemical compounds such as ascorbic acid (vitamin C). Citric acid, lemon juice or sugar syrup can be used, but these do not prevent browning as effectively as ascorbic acid.



As stated before, microorganisms during freezer storage are slowed down but are not killed. Sufficient numbers are still present to multiply and cause spoilage when the product thaws. Therefore, it is imperative that food is thawed in the refrigerator, microwave oven or under running water. **Never** leave food out on the counter to thaw. *Clostridium botulinum*, the microorganism that causes a dangerous problem in low acid, canned products, does not grow at 0° F. Therefore, freezing provides a safe alternative to pressure canning.

Foods can lose moisture during freezing. This is called freezer burn and the food surface has a grainy, brownish area which becomes tough and dry. Packaging in heavy-weight, moisture-resistant wrap or containers will prevent freezer burn.

### **Foods That Do Not Freeze Well:**

Cabbage, Celery, Cucumbers

Cheese

Cream or custard fillings

Egg whites (cooked)

Gelatin

Fruit jelly

Fried foods

Icings made from egg whites

Sour cream

Macaroni, spaghetti, rice (cooked)

Mayonnaise

Meringue

Milk sauces

Please note that some of these foods may be frozen and consumed but the quality will not be the same when thawed.



A few tips to remember:

- Select products of best quality to freeze.
- Always work under sanitary conditions.
- If fruits and vegetables cannot be frozen immediately, refrigerate them.
- Maintain the temperature of the freezer at 0° F. or lower.
- Label all products and arrange so older products are used first.
- Consult food storage tables for storage times. Times vary widely but twelve months is the maximum time for any product.

In order to ensure proper methods of freezing, be sure to follow USDA guidelines and procedures. Contact your local County Extension Office or USDA at [www.usda.gov](http://www.usda.gov).