

University of Missouri Extension

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Storing Food in the Refrigerator

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Food costs money, so keeping the quality of the food you buy just makes good sense. Knowing how to properly store food and how long to keep it brings many benefits.

Winning the proper food storage

You can win four ways with proper food storage because:

- The food will be safe to eat
- Desirable flavor and texture will be retained
- High levels of nutrients will be maintained
- Money will not be wasted on spoiled food.

Safety first

Bacterial infections account for 67 percent of all food poisoning in the United States. The three basic bacteria types responsible for most food-related illnesses are Staphylococcus, Clostridium perfringens and Salmonella. Staphylococcus is transferred to foods by humans during preparation. Clostridium perfringens and Salmonella can be on the food or transferred to the food during preparation. At low levels these bacteria do not cause trouble. Under favorable conditions, however, they can multiply to dangerous levels within a few hours.

Chief factors contributing to bacterial growth and possible food poisoning are temperature, time, food type and moisture. Bacteria need all these factors to grow. If any one is missing, bacteria will not increase as fast.

Temperatures between 40 degrees Fahrenheit and 140 degrees Fahrenheit permit fast bacterial growth. If food is kept for three or four hours in this temperature range, the number of bacteria present could cause illness. Food type will affect the rate of bacterial growth. Low-acid foods such as meat, cooked vegetables and egg dishes are particularly risky. Amount of moisture available will also affect microbial activity.

Refrigerator storage tips

- Use foil, plastic wrap, plastic bags or airtight containers for packaging foods for refrigerator storage. Moisture- and vapor-proof materials are best.
- Clean refrigerator regularly to reduce food odors. Remove spoiled foods immediately so decay cannot pass to other foods.
- Store food at cool temperatures. From 34 degrees Fahrenheit to 40 degrees Fahrenheit is best. Foods stored at temperatures above 40 degrees Fahrenheit spoil rapidly. Check temperature with a refrigerator thermometer or an outdoor thermometer.
- Use foods quickly. Don't depend on maximum storage time.

- When meat, poultry or fish is brought in plastic wrapping from self-service counters, store in these packages. Meat packages in self-service counters have been handled by many shoppers. Opening these before storage risks contamination.

Preventing bacterial growth

To prevent the growth of bacteria:

- Don't handle food carelessly
- Keep hands, utensils and cutting boards clean at all times. Cooked food can easily be recontaminated
- Cool or serve food as soon as possible after removing it from storage.
- Serve hot foods hot, serve cold foods cold
- Refrigerate food in covered storage containers immediately after meal is over. Don't worry about your refrigerator- today's appliances are made to handle immediate storage of hot food.
- Don't depend on appearance, taste or smell of food to indicate it's unsafe. Contaminated foods which can cause food poisoning may look fine and have no off-flavor or odor.

Foods that need special care

Bacteria grow best in low-acid foods such as meat, fish, poultry, milk, eggs and cooked vegetables. Acid foods such as fruits, tomatoes and pickles seldom cause food poisoning.

Foods handled a great deal during chopping, slicing or deboning are likely to become contaminated. The combination of low-acidity and much handling makes some foods more dangerous than others. Potato salad, chicken pies and stuffings are prime examples.

For safety sake

For the health of you and your family, remember to:

- Stuff poultry just before roasting or bake stuffing in separate pan
- Separate leftover meat, poultry, stuffing and gravy. Immediately refrigerate each in covered storage containers
- Use cracked eggs only in recipes requiring thorough cooking. Never use in meringue.
- Refrigerate perishable foods at 40 degrees Fahrenheit or below.

Related MU Extension publications

- MP556, Storing Food in the Freezer
<http://extension.missouri.edu/p/MP556>
- MP557, Storing Food in the Cupboard
<http://extension.missouri.edu/p/MP557>
- MP562, Home Storage of Fruits and Vegetables in Root Cellars
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