

# READY or not?

## Food and Water

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Survivors of great storms, floods or earth tremors may find themselves temporarily isolated in their homes—without electricity, heat, communication or transportation. Preparation and self-sufficiency are keys to survival. Safe food and water rank high on the priority list.

You don't need to spend a lot of money for ready made "survival packs" of dried foods which are supposed to keep indefinitely. Common canned foods, dry mixes and other staples on the cupboard shelves can be used for emergency food supplies. Familiar foods lift morale and give a feeling of security during a time of stress—so include them in your emergency supplies.

For people in good health, the most important emergency requirements are water and calories. The water must be safe to drink. The food, in addition to being kept without refrigeration and easily prepared, should satisfy hunger, supply energy, and as much as possible, contribute to good nutrition.

## WATER IS VITAL



You and your family can get along for quite awhile without food, but for only a short time without water. At least one-half gallon of water per person per day is needed for drinking in moderate weather. Another half-gallon per person is recommended for bathing, food preparation, and dishwashing.

Some of your needs for liquids can be met by storing quantities of fruit juice, soft drinks and canned foods, such as fruits and vegetables that are packed in liquid. If your stored foods are mostly dried ones, you will need extra amounts of water in order to prepare them. Canned foods do not require additional water and are preferred when preparing an emergency food supply.

Be sure the water you store for emergency use is clean. Any water that has been tested and approved by health authorities would be safe to store. If there is a question about the safety or cleanliness of the water you intend to store or of the stored water, purify it before storage or use. Stored water, like other foods stored for an emergency, should be rotated every six months.

**DANR Publication ANRPO14.** The Emergency Preparedness Newsletter series was developed as a resource for individuals and families. Each newsletter addresses a specific topic to help you prepare for the next "natural disaster". Topics include "Planning for an Emergency"; "Safety"; "Food and Water"; "Considerations for Children"; "Finance and Insurance"; and "Clean-up".



Emergency sources of water can be obtained from a variety of places—in the hot water heater tank, in plumbing, and in ice cubes. These water sources, generally, would not need to be purified.

To use the water in a hot-water heater tank, be sure the gas or electricity is turned off, and open the drain at the bottom of the tank. Start the water flowing by turning off the water intake valve and turning on a hot water faucet. Do not turn on the gas or electricity when the tank is empty. To use the water in your pipes, let air into the plumbing by turning on the highest faucet in your house and draining the water from the lowest one. Ice in the freezer will melt if your power is out so save it and use the water for drinking.

Backup water supplies can also be found in other places but water taken from these sources must be purified. For example, the water in the tank of your toilet is a potential source of water (not water from the toilet bowl). Outdoor hoses may have water in them too; this water should be carefully drained into a clean container and purified. Waterbeds, pools and spas may be sources of additional water but this water cannot be used for drinking due to the chemicals that are used. Check with the company that supplies the additives for these water sources as to the possible useages in an emergency.

## *To Purify Water*

The most effective way is to bring water to a boil. If you are unable to boil the water, most bacteria and viruses are also killed with the addition of chlorine bleach. Use only unscented, regular household bleach. Check the label to be sure that hypochlorite is the only active ingredient in the bleach.

Suspended particles should be allowed to settle to the bottom of the container. Add bleach, stir gently being careful not to disturb particles at the bottom. Wait for 30 minutes. Water should have a slight bleach odor. If not, repeat the process. Use the following amounts:



- one teaspoon of bleach per 5 gallons water
- one-quarter teaspoon of bleach per gallon of water
- four drops of bleach per quart of water

## *FOODS FOR SURVIVAL*



You may already have a one- or two-week supply of nonperishable food in your cupboards. Maintaining your food supply is a simple matter of use and replacement. In addition, you may choose to keep an emergency food supply in a separate location and replace it every six months.

To insure good nutrition, keep the Food Guide Pyramid in mind as you plan and assemble your disaster food and water kit. Include:

- Breads and Grains: ready-to-eat cereals, crackers, canned breads and canned steamed puddings, canned spaghetti, rice and macaroni products. Dried packages keep well but require extra water to prepare.

# SAFE FOOD TIPS

Bacteria are all around us—on our bodies, in food, and on cooking utensils. In small amounts, these bacteria are harmless. In large numbers, these bacteria cause foodborne illness. At temperatures below freezing, most bacteria that cause foodborne illness survive, but do not grow. Refrigeration slows the growth of bacteria. If the storage temperature of perishable food rises above 40°F (refrigerator temperature) for longer than a couple of hours, there is a strong chance that the number of bacteria has risen to a level that could cause food poisoning. The following tips should prevent the disaster from becoming even more of a crisis.

## 1). *Don't Eat Foods in Damaged Containers*

Check cans and glass jars for dents and cracks, or bulging lids or tops. Check paper packaging for leaks and stains. Make sure frozen foods are at least as cold as refrigerated food. If you are unsure about the temperature, *throw the food away!* Medical help may not be available.

## 2). *Keep Cold Foods Cold*

Keep perishable foods cold. Do not eat perishable foods that have been left at room temperature for more than two hours.

## 3). *Keep Foods Clean*

Keep bacteria out of food by washing hands, utensils, and work areas with hot soapy water when preparing food.

## 4). *Don't Spread Bacteria from Raw Meat and Poultry to Other Food*

Wash hands and work areas after contact with raw meat and poultry. Use clean utensils to cut meat and wash again before using on other food.

## 5). *Keep Hot Foods Hot*

Cook food thoroughly to an internal temperature of at least 160°F. Meat or poultry should not be eaten if the flesh is still pink inside.

## 6). *Don't Leave Food at Room Temperature for Longer Than Two Hours*

### **REMEMBER!**

If symptoms of foodborne illness—upset stomach, nausea, vomiting, diarrhea, fever, or aching body—develop,  
*drink plenty of fluids and rest.*

*If symptoms persist, see a Doctor!*

# READY or not?

## PERSONAL EMERGENCY FOOD KIT



Be prepared for the next disaster. Make a Personal Emergency Food Kit. You can fit enough food into an empty, clean half gallon milk carton to last 72 hours. Store your Personal Emergency Food Kit along with 6 quarts of water.

Make a Personal Emergency Food Kit for each member of the family to store in the car or at school or work. Remember to include 6 quarts of water for each person.

### *Suggested foods to include:*

- Choose small individual serving size cans with pull-top lids such as canned beans, pasta, soups, fruits, tuna.
- Choose dried foods that need no preparation such as dried fruit, granola bars, and nuts.
- Choose instant foods that mix with water such as soups, noodle mixes, cereals, coffee, tea and cocoa.
- Include some hard candy or gum.

Rotate the contents of the kit at least every 6 months

## HOW MUCH AND WHERE TO STORE FOOD AND WATER

To determine the amount of each type of food to store, calculate the number of servings, you would need to feed each family member per day and multiply by the number of days you plan your kit to provide. You may wish to include menus using the stored foods so that you know how to portion out foods on a daily basis. Remember to include special foods as needed by family members, such as soy milk or baby formula. Don't forget the family pets. Pack a supply of food and water for them as well. Finally, keep a supply of necessary medications in your emergency supply kit.

Emergency water and food supplies should be stored in a dry place where the temperature is fairly cool, not above 70°F and not below freezing. To protect boxed foods from pests and extend their shelf life, store the boxes in tightly closed metal or plastic containers. Some people use clean garbage containers with wheels to store emergency supplies. If your home is damaged, the emergency supplies stored in a moveable container can be easily moved to a safe site.



- Fruits and Vegetables: canned and dried fruit and vegetables. Remember fresh fruit and vegetables stored in the refrigerator should be used first. Garden grown produce should not be overlooked as a food source. However, produce contaminated by flood waters, chemical wastes, oil or raw sewage is unsafe and should not be eaten.

- Protein Foods: canned meat, poultry, fish, beans, lentils, peanut butter, nuts and other main dishes such as pasta meals, beef stew and chili beans.
- Milk: nonfat dry milk, dry pudding mixes, cocoa mix, canned or sterile milk in cartons, sterile pudding cups - *refrigeration not required*, and processed cheese sold in non-refrigerated cartons.
- Fats and Sweets: jam, jelly, honey, syrup, hard candy, and vegetable oil.
- Miscellaneous: instant coffee, tea, salt, pepper, catsup, mustard, pickles, relishes and other seasonings.
- Non Food Items: don't forget to include items such as a manual can opener, paper plates and cups, eating utensils, containers to mix foods and drinks, mixing spoon, sharp knife, cooking pans, napkins, towels, detergent, flashlight, matches and candles. Store these items in plastic dishpans. Wet wipes or towelettes (in sealed packages) are another helpful item to include in case water for sanitation is limited. Change these occasionally, as they will eventually dry out even if sealed.



- Cooking Equipment: such as a camping stove with fuel or barbecue and charcoal should also be stored in an easily accessible spot. Sterno™ canned fuel and burners are available at camping supply stores as well as most grocery and hardware stores. Canned fuel can be used to heat small amounts of food and water. One or two cooking pans should also be stored with your emergency gear.

## REFRIGERATED AND FROZEN FOODS

Should you lose power following an emergency, foods stored in the refrigerator and freezer should be eaten first. Foods that feel as cold as refrigerated food, 40°F or less, will be safe to eat. Milk, meat and other protein foods are perishable and should not be kept at room temperature longer than 2 hours. If there is any doubt about the safety of the food, throw it out!



Foods in a well-filled, well-insulated freezer probably will not begin to spoil until 24 to 48 hours after the power goes off. However, a lot depends on the room temperature, the type and size of the freezer and how often you open the door. Foods in a full freezer will stay cold longer. It's best not to open the freezer except for very short periods to remove foods for the meal. The same is true of the refrigerator.

# ROTATION INSURES GOOD QUALITY FOOD SUPPLY WHEN DISASTER STRIKES



Rotate your home food supply with foods stored in your disaster food and water kit. Check dates on food packages and rotate the food to be eaten before the dates expire. Replace the food taken from emergency storage with newly purchased food. Mark the date you stored the food on the individual items with a marker pen. Place new items at the back of the storage area and older ones in the front. When you change your clock for Daylight Savings Time in the Spring and again when you change it back in the Fall (or every six months), why not rotate the emergency food into your main supply and re-supply your emergency supply? Remember to check the "pull dates" on the food you pack for emergencies. If the dates are in less than 6 months, you will want to rotate them into your regular food supply to eat before the date expires.

## WANT MORE INFORMATION?

**Emergency Food and Water Supplies A Family Protection Brochure**, Federal Emergency Management Agency Publication #215, March 1992. Write to Federal Emergency Management Agency, P.O. Box 70274, Washington, D.C. 20024.

**A Food Plan for Emergencies**, by Marie Feree, Linda Garcia, and Evelyn Wunderlich, University of California, Division of Agriculture and Natural Resources, Leaflet 21247, 1981.

**Keeping Food Safe During Emergencies Leaflet # HE-119** by Jo Carol Chzem, R.D., Wilella Daniels, and April C. Mason, Department of Foods and Nutrition, School of Consumer and Family Sciences, Purdue University Cooperative Extension Service, West Lafayette, Indiana 47907, 1993.

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