

# Planning for Food After a Disaster

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No refrigeration! No electricity!  
Limited water!

Regardless of the cause of these problems, they can radically affect what foods we eat. Planning ahead helps assure good, nutritious food is available for our families in times of disaster.

Planning ahead with regard to food involves establishing a food reserve to use when you cannot replenish regular food supplies. Experts generally predict that most services will be restored within three days after a disaster. However, you may want to plan on food for one to two weeks to assure you have enough to last until you can get more.

Establishing a food reserve may only involve making sure regular food supplies are large enough to supply needs during the disaster. You might

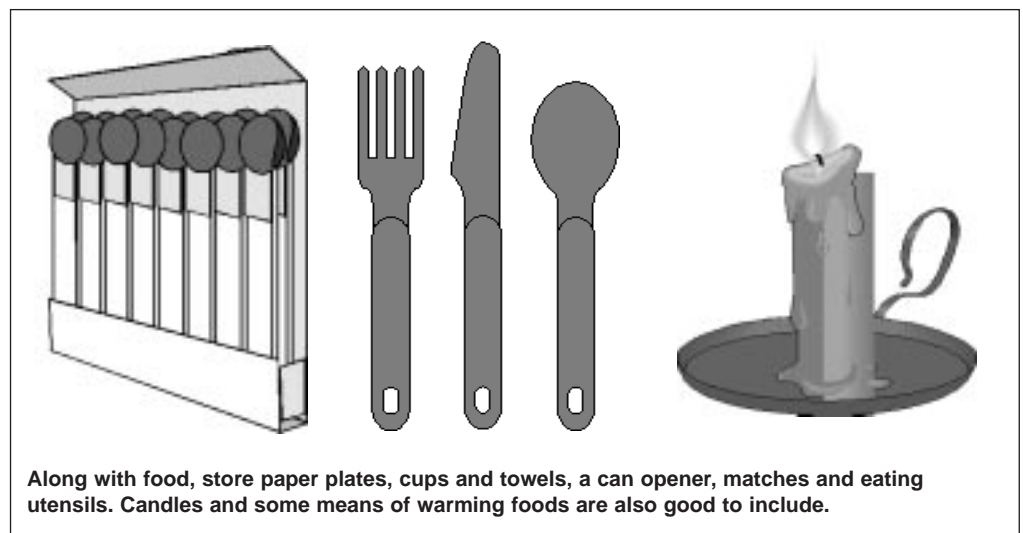
prefer to set up a separate emergency supply in a place specifically selected for easy access in times of emergency.

Select foods for this reserve that keep well without special handling, such as refrigeration, and that can be eaten with minimum preparation. When possible, choose can sizes that will supply one meal, since storage of leftovers may be difficult.

In setting up a reserve, include foods your family likes. During a disaster, family members have enough to cope with without having to accept unfamiliar foods. If canned and dried products are not part of your regular meals, you may want to introduce them into some meals. This will help family members accept them more readily when it is necessary to eat emergency supplies. Special treats, like candy and cookies, should also be included as morale boosters and for quick energy.

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If there is a baby or other family member who requires special food, be sure an adequate supply of foods for their needs is included in the reserve. Reconstituted dry milk or canned milk may be used for short-term feeding of infants. These products do not satisfy nutritional needs of the infants, so long-term feeding of only these products is not recommended.

If family members need special medication, include these products in the reserve. Be sure to check with your physician or pharmacist about how long these medications can be stored and still remain effective.

It is impossible to predict when an emergency will occur. Therefore, food reserves may need to be maintained for a long period of time. To assure the food in a reserve is of highest quality, stored food should be used regularly and replaced. Foods placed in the reserve should be dated. Place new foods in back of the older stores. For best quality, no food should be kept longer than a year.

Choose a storage place that is cool and dry. Temperature of the food should never be higher than 70 degrees or lower than 40 degrees. Food in boxes must be protected from insects and rodents. A good

way to do this is to put the food, box and all, in a closed metal container.

Canned food is a good choice for a reserve. It will usually remain safe to eat as long as it has a good seal. Do not use canned foods that bulge, leak, squirt liquid, contain mold or have an off-odor when opened. Any of these may indicate the presence of bacteria which could be harmful if eaten.

Along with food, store paper plates, cups and towels, a can opener, matches and eating utensils. Candles and some means of warming food are also good to include.

Storing water is also recommended since water supplies may be cut off or contaminated. Recommendations say to plan on one-half gallon per person per day for drinking and food preparation. If bathing, brushing teeth, washing dishes or other uses of water are determined to be necessary, additional water will be needed. The amount of water for consumption might be reduced somewhat, depending on the total juices, soups, other drinks and high moisture foods available. Other sources of water available in emergency situations are the water heater, water softener containers and the water storage area of the toilet.

<b>Guide for Reserve Food Supply*</b>		
<b>Kind of Food</b>	<b>Amount Per Person for 1 Day</b>	<b>Suggested Food</b>
Milk	Equivalent of 2 glasses (fluid)	Powdered nonfat dry milk Evaporated canned milk Each of the following is equivalent to 1 quart of fluid milk: Evaporated           3 (6 ounce) cans 1 (14 1/2 ounce) can Nonfat dry milk    3 to 3 1/2 ounces
Canned meat, poultry, fish, cooked dry beans and peas	2 servings	Canned meat, poultry, fish Canned meat mixtures Canned dry beans Canned spaghetti and rice products Condensed soups containing meat or dry beans Peanut butter
Fruits and vegetables	3 to 4 servings	All types of canned vegetables and fruit Dry fruit, canned fruit juice
Cereal and baked goods	3 to 4 servings	Ready-to-eat cereal (1 ounce serving) Instant hot cereals
Spreads for bread and crackers	According to family practices	
Fats and vegetable oil	1 ounce	
Sugars, sweets	1 ounce	
Miscellaneous	According to family practices and extent of cooking possible	Coffee, tea, cocoa, powdered or canned beverage products, soda, baking powder, flavorings, soft drinks

\*Adapted from *Safe Handling of Food During Emergencies*, Cooperative Extension Service, Purdue University, West Lafayette, Indiana.

## Containers for Water Storage

Many types of containers are available for water storage. The most commonly used containers are glass, plastic and metal.

**Glass:** Glass provides a fairly effective container for storage, but it is easily broken and is heavier than plastic. Glass is non-permeable to vapors and gases; however, water in glass containers should not be stored near gasoline, kerosene, pesticides or similar substances.

**Plastic:** Plastic jugs are frequently used for water storage. These containers are lightweight and fairly sturdy. There are many types of plastic containers manufactured. Generally, polyethylene-type plastics are safe for storing water. Some, however, are not recommended for food storage because harmful chemicals could leach into the food. Most plastics used in waterbeds are not approved food storage plastics. Plastic containers which have previously been used for food storage or which are being advertised as food storage products will be safe. Plastic jugs with secure lids, which have contained milk or other edible substances are safe for water storage; however, it is essential that the milk bottles be thoroughly washed to remove the fat traces. Some lightweight gallon containers might split at the seams and leak. Chlorine bleach bottles may be a food-approved plastic, but contain an anti-static agent which prevents accumulation of dust during storage and are thus not recommended. Since plastic is permeable to certain vapors, water stored in plastic should not be near gasoline, kerosene, pesticides or similar substances. It is advisable to store plastic water containers away from direct sunlight.

**Metal:** Some metals, such as stainless steel, can successfully be used for water storage. A metal water storage container should be resistant to rust. A metallic taste can be picked up by the stored water in some types of metal containers. Water stored in metal containers should not be treated prior to storage with chlorine, since the chlorine compound is corrosive to most metals.



Storing water is also recommended since water supplies may be cut off or contaminated.

## Treatment for Stored Water

Water to be stored for long periods should be sanitized or disinfected. Be sure to use the best quality water possible for storage. Water from a system with a state division of health "approved" rating is recommended. Likewise, the containers should be clean.

**Heat Treatment:** One effective way to store water is in clean canning jars. Fill clean fruit jars with water, leaving 1 inch of headspace at the top of the jars. Prepare lids as for canning. Place unused, clean lids and screw band on jars and process the water in a boiling water bath as fruit is processed. Quart jars should be processed 20 minutes, 2 quart jars for 25 minutes.

**Chlorine Treatment:** Liquid chlorine bleach can be used to disinfect water for long-term storage. One gallon can be treated by the addition of 1/4 teaspoon of liquid chlorine bleach containing 4 to 6 percent sodium hypochlorite. (Most bleaches contain 5.25 percent.) This is equivalent to 16 drops of liquid chlorine bleach.

Closure of water containers should be secure. Stored water should be checked occasionally. If any changes, such as cloudiness or an odor, are noted, replace the water and treat as before.

## Emergency Disinfection of Water

Some emergency situations could occur where the only water available is contaminated by disease-causing organisms. In this case, the same procedures can be used as for treatment of stored water.

**Heat Treatment:** Boiling is the most preferred method. This heat treatment requires water to be boiled in a vigorous, rolling boil for 5 minutes. Taste may be improved by pouring the boiled water back and forth from one clean container to another several times to incorporate air.

**Chemical Treatment:** Chemical treatment is less desirable than heat treatment because the effectiveness is dependent on several variables, such as (1) the amount of organic matter in the water, (2) water temperature and (3) the length of time after the chemical is added until it is used.

**Chlorine Treatment:** Clear water can be treated with 1/4 teaspoon (16 drops) of liquid chlorine bleach per gallon. Mix the water and allow it to stand for 30 minutes before using. If water appears cloudy, chemical treatment is not recommended. A slight chlorine odor should be detectable in the water. If not, repeat the treatment and let stand an additional 15 minutes before using. Use fresh bleach.

**Water Purification Tablets:** Different types of tablets are available for water purification purposes. Be sure to follow the manufacturer's directions for treatment, and allow sufficient time for the chemical to work before using. Check the label for expiration date, since the tablets can become ineffective with time. Most tablets have a storage life of approximately two to five years unopened.

## Contamination by Radioactivity and Chemicals

No effective way for decontamination of water which contains radioactive or chemical fallout is available for home use. This decontamination should be supervised by local or state health officers.

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