



## FOOD AND WATER

When an earthquake, severe winter storm or other disaster strikes your community, there is a possibility that you may not have access to food, water and electricity for days, or even weeks. By dedicating some time to collect and store emergency food and water supplies, you can provide for your entire family.

### Food

#### 1. Short -Term Food Supplies

Even though it is unlikely that an emergency would cut off your food supply for two weeks, you should prepare a supply that will last that long. The easiest way to develop a two week stockpile is to increase the amount of basic foods you normally keep on your shelves.

#### 2. Nutrition Tips

During and after a major disaster, it will be critically important that you maintain your strength. So remember:

- Eat at least one well-balanced meal each day.
- Drink enough liquid to enable your body to function properly (at least two quarts per day).
- Take in enough calories to enable you to do any necessary work.
- Include vitamin, mineral and protein supplements in your stockpile to assure adequate nutrition.

#### 3. Suggested Food Supplies

Preparing your emergency food stores can be expensive. A cost efficient way to build up your emergency food supplies is to add items every few weeks. Start by collecting a three day supply of nonperishable food.

Start out by selecting foods that require no refrigeration, preparation or cooking are best. Water is a valuable commodity in an emergency so choose food items that required little to no added water. Select food items that are compact and lightweight. Avoid salty foods if possible as they increase thirst. Include a selection of the following foods in your emergency supply kit:

- Ready-to-eat canned meats, fruits, and vegetables
- Canned juices, milk, soup (if powdered, store extra water)
- Staples such as sugar, salt, pepper, flour, oil, etc.
- High-energy foods such as peanut butter, jelly, crackers, granola bars, trail mix, etc.
- Foods for infants, elderly persons, nursing mothers, or persons on special diets
- Comfort and stress foods such as cookies, hard candy, sweetened cereals, lollipops, instant coffee, tea bags, etc

#### 4. Special Considerations

As you stock food, take into account your family's unique needs and tastes. Try to include foods that they will enjoy and that are also high in calories and nutrition. Include comfort foods for your family members. Individuals with special diets and allergies will need particular attention, as will babies, toddlers and elderly people. Nursing mothers may need liquid formula, in case they are unable to nurse. Canned dietetic foods, juices and soups may be helpful for ill or elderly

people. Make sure you have a manual can opener as well as disposable plates, cups and utensils. And don't forget nonperishable foods and a few treats for your pets.

Keep an eye on your inventory of supplies; you want to be self-sustaining as long as possible. If your supplies begin to run low, consider the following options:

- If activity is reduced, healthy people can survive on half their usual food intake for an extended period and without any food for many days. Food, unlike water, may be rationed safely for adults. Avoid rationing food to children, nursing mothers and pregnant women.
- If your water supply is limited, try to avoid foods that are high in fat and protein, and don't stock salty foods, since they will make you thirsty. Try to eat salt-free crackers, whole grain cereals and canned foods with high liquid content.
- You don't need to go out and buy unfamiliar foods to prepare an emergency food supply. You can use the canned foods, dry mixes and other staples on your cupboard shelves. In fact, familiar foods are important. They can lift morale and give a feeling of security in time of stress. Also, canned foods won't require cooking, water or special preparation.

## **5. Storage Tips**

Check food and water stores biannually and keep track of the expiration dates. Some recommendations to assist you:

- Evaluate the hazards in your home and select a storage space that will be the safest possible location for your emergency food supplies.
- Store the supplies in a store in a cool, dark place away from direct sunlight.
- Keep food covered at all times.
- Open food boxes or cans carefully so that you can close them tightly after each use.
- Wrap cookies and crackers in plastic bags, and keep them in tight containers.
- Empty opened packages of sugar, dried fruits and nuts into screw-top jars or air-tight cans to protect them from pests.
- Inspect all food for signs of spoilage before use.
- Use foods before they go bad, and replace them with fresh supplies, dated with ink or marker. Rotate the inventory by placing the newest item in the back and the oldest items in the front.

## **6. How to Cook**

For emergency cooking you have several options. Hopefully you have some pots or pans from your kitchen available. If your home has a fireplace, you use the fireplace to cook. If you have a charcoal grill, a camp stove or propane BBQ you can cook outdoors. Only use these resources in an open and well-ventilated area. You can also heat food with candle warmers, chafing dishes and fondue pots. You can include a can of Sterno® in your emergency kit. Canned food can be eaten right out of the can. You can heat these food items in the can, however be sure to open the can and remove the label first.

## **7. Priority of Use**

If there has been a major disaster and you are unsure when assistance will reach you, consider the following priorities for using your food stores.

- First, use perishable food and foods from the refrigerator.
- Second, use the foods from the freezer. To minimize the number of times you open the freezer door, post a list of freezer contents on it. In a well-filled, well-insulated freezer, foods will usually still have ice crystals in their centers (meaning foods are safe to eat) for at least three days.
- Third and finally, begin to use your emergency food stores of non-perishable foods and staples.

## **8. Additional Information**

Here are some general guidelines for rotating common emergency foods:

**Use within six months:**

- Powdered milk (*boxed*)
- Dried fruit (*in metal container*)
- Dry, crisp crackers (*in metal container*)
- Potatoes

**Use within one year:**

- Canned condensed meat and vegetable soups
- Canned fruits, fruit juices and vegetables
- Ready-to-eat cereals and uncooked instant cereals (*in metal containers*)
- Peanut butter
- Jelly
- Hard candy and canned nuts
- Vitamin C

**May be stored indefinitely (*in proper containers and conditions*):**

- Wheat
- Vegetable oils
- Dried corn
- Baking powder
- Soybeans
- Instant coffee, tea and cocoa
- Salt
- Noncarbonated soft drinks
- White rice
- Bouillon products
- Dry pasta
- Powdered milk (*in nitrogen-packed cans*)

## **Water**

Having an available supply of clean water is a top priority in an emergency. A normally active person must drink at least two quarts of water each day. Physical conditions such as high temperatures can double that amount. Children, nursing mothers and people who are ill will need even more water on a daily basis. You will also need water for food preparation and hygiene. Store a total of at least one gallon per person, per day. You should store at least a two week supply of water for each member of your family. If supplies run low, never ration drinking water. Ration the water used for hygiene and food preparation instead. Drink the amount you need today, and try to find more for tomorrow. You can minimize the amount of water your body needs by reducing activity and staying cool.

### **1. How to Store Water**

Store your water in thoroughly washed plastic, fiberglass or enamel-lined metal containers. Look for the triangular recycling symbol with a number 1 on the bottom of the bottle as those are best for water storage. Plastic containers, such as soft drink bottles, are best.

This recycling symbol is on the bottom of the bottles...



Wash the bottle with soap and warm water; fill with water from your tap. You can also purchase food-grade plastic buckets or drums. Seal water containers tightly, label them with the date and store in a cool, dark place away from direct sunlight. Replace your emergency water every 6 months by repeating the process, like food and batteries, water does expire! Avoid using containers that will decompose or break, such as plastic milk jugs or glass bottles. Never use a container that has held toxic substances.

## 2. Emergency Water Sources

There are alternative water sources in your home. If a disaster catches you without a stored supply of clean water, you can use the water in your hot-water tank, pipes and even melted ice cubes. As a last resort, you can use water in the reservoir tank of your toilet (not the bowl). Do you know the location of your incoming water valve? You'll need to shut it off to stop contaminated water from entering your home if you hear reports of broken water or sewage lines.

To use the water in your pipes, let air into the plumbing by turning on the faucet in your house at the highest level. A small amount of water will trickle out. Then obtain water from the lowest faucet in the house. To use the water in your hot-water tank, be sure the electricity or gas is 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.

If you need to find water outside your home, you can use these sources. Rainwater or saltwater can be used only after distilling the water. You should not drink flood water.

## 3. Three Ways to Purify Water

In addition to having a bad odor and taste, contaminated water can contain microorganisms which cause diseases such as dysentery, typhoid and hepatitis. If you have questions about the quality of the water you are using for drinking, food preparation or hygiene, purify it before drinking. There are many ways to purify water. None is perfect. Often the best solution is a combination of methods. Two easy purification methods are outlined below. These measures will kill most microbes but will not remove other contaminants such as heavy metals, salts and most other chemicals. Before purifying, let any suspended particles settle to the bottom, or strain them through layers of paper towel or clean cloth.

- **BOIL**

Boiling is the safest method of purifying water. Bring water to a rolling boil for 3-5 minutes, keeping in mind that some water will evaporate. Let the water cool before drinking. Boiled water will taste better if you put oxygen back into it by pouring the water back and forth between two clean containers. This will also improve the taste of stored water.

- **DISINFECT**

You can use household liquid bleach to kill microorganisms. Use only regular household liquid bleach that contains **5.25 percent sodium hypochlorite**. Do not use scented bleaches, color safe bleaches or bleaches with added cleaners.

To purify water, use the table below as a guide:



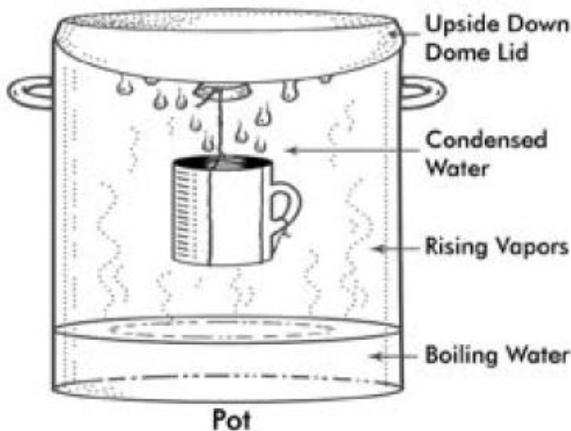
<u>Amount of Water</u>	<u>Amount of Bleach</u>
1 Quart	2 Drops
1 Gallon	8 Drops
5 Gallons	1/2 Teaspoon

**Note:** Use an eye dropper when adding bleach to the water. If water is cloudy, double the recommended dosage of bleach.

After adding bleach, shake or stir the water container and let it stand 30 minutes before drinking. If the water does not have a slight bleach odor, repeat the dosage and let stand another 15 minutes. The only agent used to purify water should be household liquid bleach. Other chemicals, such as iodine or water treatment products sold in camping or surplus stores that do not contain 5.25 percent sodium hypochlorite as the only active ingredient, are not recommended and should not be used.

- **DISTILLATION.**

While the two methods described above will kill most microbes in water, distillation will remove microbes that resist these methods, and heavy metals, salts and most other chemicals.



Distillation involves boiling water and then collecting the vapor that condenses back to water. The condensed vapor will not include salt and other impurities. To distill, fill a pot halfway with water. Tie a cup to the handle on the pot's lid so that the cup will hang right-side-up when the lid is upside-down (make sure the cup is not dangling into the water) and boil the water for 20 minutes. The water that drips from the lid into the cup is distilled.

For additional information on emergency preparedness, please visit any of the following on-line resources:

**City of Long Beach:**

Fire Department

[http://www.longbeach.gov/fire/emergency\\_prep/default.asp](http://www.longbeach.gov/fire/emergency_prep/default.asp)

Police Department

<http://www.longbeach.gov/police/default.asp>

Health and Human Services

<http://www.longbeach.gov/civica/filebank/blobdload.asp?BlobID=9067>

**County Agency:**

Los Angeles County Office of Emergency Management

<http://www.lacoa.org/>

**State Agency:**

The Governor's Office of Emergency Services

<http://www.oes.ca.gov/>

**Federal Agency:**

Federal Emergency Management Agency

<http://www.fema.gov/>

Department of Homeland Security

<http://www.dhs.gov/index.shtm>

U.S. Geological Survey – Specific earthquake information and maps.

<http://www.usgs.gov/>

Center for Disease Control and Prevention

<http://www.cdc.gov/> or <http://www.bt.cdc.gov/planning/index.asp>

**City of Long Beach Emergency Phone Numbers:****Emergencies Dial 911**

- **Gas Department:** 562.570.2140
- **Water and Sewer:** 562.570.2390
- **Public Works:** 562.570.2700
- **Police Non-Emergency** 562.435.5711
- **Fire Non-Emergency** 562.570.9400

**Social Media:**

You can also sign up for any of the City of Long Beach social media accounts and receive updates on the City's disaster responses, as well as information to assist you.

[www.facebook.com/CityofLongBeachCA](http://www.facebook.com/CityofLongBeachCA)

<https://twitter.com/LongBeachCity>

[www.youtube.com/user/LongBeachCityCA](http://www.youtube.com/user/LongBeachCityCA)

