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What Will You Do When A Disaster Strikes?

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WHAT WILL YOU DO WHEN A DISASTER STRIKES?

**A QUICK REFERENCE GUIDE TO HELP
KEEP YOU AND YOUR FOOD SAFE**



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Why You Should Read This Book

- Bacteria exist everywhere in nature, even in the food that you eat.
- Most bacteria do not make you sick, but some can cause foodborne illness.
- Most cases of foodborne illness can be prevented through proper cooking or processing of food, which kill the bacteria.
- When a disaster strikes, there is an increased risk of getting a foodborne illness. Power outages make it hard to keep food cold enough and make it difficult to properly heat. Flood waters or environmental substances may contaminate food in your home making it harmful to eat.



This booklet will explain how to prepare for a possible disaster, with a special emphasis on keeping your food safe during and after a disaster.

Cover photo courtesy of FEMA/David Fine

Hi! I'm C-LES. I'm here to help keep your food safe during a disaster. I hope you will read this booklet.



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DEVELOPING A COMMUNICATION PLAN

Be ready to take action!
Keep an **emergency plan** with your
emergency food kit! If disaster
strikes, you and your family will be
prepared.



Family Communication Plan - As a family, make a plan before a disaster strikes.

- **Know how** to contact each other if you are not together when a disaster strikes.
- **Designate** a safe meeting place where the family will gather if separated.
- **Be sure** everyone knows the location of the emergency food kit.
- **Keep-up-to-date** identification and medical information on all family members in your emergency food kit.

Hint: Complete the contact information sheet found at the end of this section. It is a good idea to post a copy of this sheet in a place where everyone can find it easily.

Shelter

- **Know** the locations of emergency shelters in your area.
- **Know** different routes to the shelter in case roads have been damaged or blocked off.
- **Identify** pet-friendly shelters where you can go if you have pets.

Work Together

- **Find out** what steps schools and your place of employment have taken to ensure everyone's safety during an emergency.
- **Work with** your neighbors to create a safe environment for everyone if disaster strikes.
- **Ask** community officials to hold an emergency drill in your area.



Follow All Instructions Provided on the TV and Radio
or in the Newspaper.

Remember, Your Safety is Top Priority
During Any Disaster.

Emergency Contact Information

Police _____

Fire Department _____

Hospital _____

Red Cross _____

FEMA _____

Health Department _____

Work _____

Relatives _____

Where we will meet _____

PREPARING AN EMERGENCY FOOD KIT

Every family should have an **emergency food kit**. An **emergency food kit** contains enough water and food for each household member for at least 3 days and is kept in a waterproof case or carrying bag. Store the kit in a cool, dry place that is easy to access or in your emergency shelter (if you have one).

What You Should Include

Water for Three Days

- At least one gallon of clean water per person per day for drinking and hygiene.

Hint: Clean and sterilize all containers before filling.

Food for Three Days

- **Dried Foods**
 - Fruit, Crackers, Ready-to-eat Cereals, Powdered Milk, Beef Jerky
- **Canned Foods**
 - Meats and Fish, such as Tuna and Chicken
 - Vienna Sausages, Beans, Fruit, Fruit Juices, Vegetables, Soups
- **High Energy Foods**
 - Peanut Butter, Jelly, Nuts, Trail Mix, Granola Bars, Protein Bars, Breakfast Bars, Cookies
 - Baby Formula and Baby Food, if needed



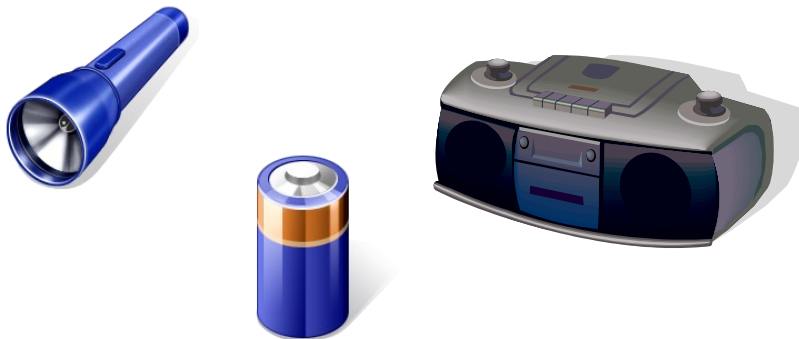
Hint: Even if you are breast feeding, stress may keep you from producing milk.

Other Items You May Want To Include In Your Emergency Food Kit

- Prescription Drugs
- Copies of Important Family Documents
- Medical Supplies, such as a First Aid Kit and Instruction Booklet

Hint: Put the items listed above in a waterproof bag

- Flashlight or Battery Operated Lamps
- Waterproof Matches
- Paper Plates and Plastic Utensils
- Moist Towelettes and Hand Sanitizer
- Portable Radio
- Manual or Battery Operated Can Opener
- Extra Batteries



REMEMBER!

- Check the expiration dates on food every 6 months.
- Replace foods that are old.
- Include some comfort items if you have room.

POWER OUTAGES

Electricity plays an extremely important role in keeping food safe. It powers the refrigerator, range, and lights. Taking the proper actions before, during, and after a power outage will help keep you and your food safe.

Preparing For A Possible Power Outage

- **Keep** an appliance thermometer in your refrigerator and freezer.
- **Freeze** water in thoroughly washed or new plastic containers. These can be used to keep food cold in the refrigerator, freezer, or cooler. As the water thaws, it can be used for drinking.
- **Purchase** a generator if possible.
- **Have a cooler** on hand. Put ice packs in the freezer.
- **Freeze** refrigerated items, such as meat, milk and leftovers, that are not going to be used immediately.



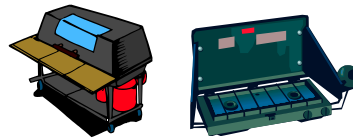
What To Do During A Power Outage

- **Keep** refrigerator and freezer doors closed as much as possible.
- **Place foods** in a cooler with frozen ice or gel packs if the freezer is already full.



Hint: Do not place food outside to keep it cold. Outside temperatures can vary, and animals or bugs might get to the food you are trying to keep safe.

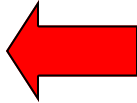
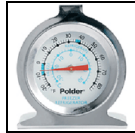
- **Fill empty containers** with water and place them outside to freeze if it is cold enough. Use the frozen containers in the refrigerator, freezer or cooler. Snow and ice can also be used but must be sealed in a separate container before putting in the refrigerator or freezer.
- **Keep foods** close together in the freezer, which helps the freezer keep its temperature longer.
- When preparing food, heat **outdoors** over camp stoves, grills, or contained fires. A fireplace can also be used if properly ventilated.



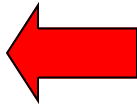
Hint: Always use camp stoves or grills outside. Both are a potential fire hazard and pose a risk of exposure to the toxic gases they release.

What About After A Power Outage?

- **Discard refrigerated perishable foods** such as milk, meat, and dairy products after 4 hours without power.
- **Check the temperature** of the food in the freezer. Food that is still below 40 degrees F (4.4 degrees C) should be safe to eat. Foods that have defrosted completely and are not below 40 degrees F should be thrown out.



Appliance thermometers should be placed in your refrigerator and freezer so you know the inside temperature during and after a power outage.



Cooking thermometers should be used to measure the temperature of foods that have defrosted, making sure they are still below 40 degrees F.

- **Check for ice crystals** on the food in the freezer. If there are ice crystals on the food in the freezer, it can be refrozen or cooked.
- **Throw out** any food that has an unusual texture, color, or odor.

Never taste food to see if it is safe. Throwing the food out may save you discomfort, doctor bills, or even a hospital stay later.



FLOODS

Flood waters are dangerous and may contain sewage or other harmful substances. It is important to take proper measures before and after a flood to ensure the safety of you and your food.

Preparing For A Flood

- **Move** canned goods and cooking equipment to a place out of the reach of flood waters.




What Needs To Be Thrown Out After A Flood

- All foods that have come in contact with flood waters if they are not in a waterproof containers

Hint: Food containers that are not waterproof include: containers with screw caps, snap lids, pop tops, crimped bottle caps, cardboard cartons, and boxes.

- Cutting boards, plastic utensils, baby bottle nipples, and pacifiers; there is no way to safely clean these items after they have come in contact with flood waters.
- Canned items that have damage or rust on the outside.
- Retort packages with damaged seams.
- **Refrigerators or freezers** that were under flood water. Be sure to remove the doors so children or animals cannot be trapped inside.


Hint: Damage to cans may be swelling, leakage, punctures, holes, fractures, extensive deep rusting, or crushing/denting which would not allow you to stack or open the cans with a manual can opener.



Fill me with all the food
damaged by flood water.

Cleaning Kitchen Items After A Flood

- **Clean** and **sanitize** all counter tops and surfaces in the kitchen with the bleach solution.
- **Wash and sanitize** any undamaged cans or retort packages before opening.
- **Wash** all metal pots, pans, ceramic dishes, and utensils in hot soapy water. **Rinse**, then **soak** for 15 minutes in a bleach solution.



Bleach Sanitizing Solution
Recipe:
Use 1 tablespoon of
household bleach per 1
gallon of clean water

DO NOT EAT OR DRINK ANYTHING THAT HAS
COME INTO CONTACT WITH FLOOD WATERS.
WHEN IN DOUBT, THROW IT OUT!!

PURIFYING WATER

What would you do if you ran out of safe drinking water in an emergency? Some water sources can be purified to kill bacteria that could cause illness, making water safe to drink.

If you need to find water outside your home to drink or use for cooking, you may be able to use rainwater or water from streams or rivers. Before performing any of these purification methods, let any particles settle to the bottom of the container and strain the water through a clean cloth or paper towels.

Disinfecting By Boiling

- Put water in a clean pot.
- Bring to a rolling boil and boil for at least 3 minutes.
- Cool the water before using unless it is being used for cooking.



Disinfecting With Bleach

- Place one gallon of water in a clean container.
- Add $\frac{1}{4}$ (one fourth) teaspoon of unscented household bleach (5.25% Sodium Hypochlorite).
- Stir.
- Wait 30 minutes.
- There should be a faint odor of bleach remaining. If there is not a faint odor of bleach, repeat the procedure.

QUICK NOTE

The amount of bleach used to purify water is different than the amount of bleach used to make a sanitizing solution. Refer back to page 13 for the sanitizing solution.

AIRBORNE TOXINS AND FIRES

You may not realize it, but when a natural disaster, such as an earthquake or tornado, strikes airborne toxins may be released. These may come from dangerous gases, ashes, broken glass, asbestos, and pesticides. Depending on the wind, the toxins can be carried for many miles and affect you and your food.



Food exposed to fires can be made unsafe to eat by excess heat, smoke, and toxic fumes released from burning materials, and chemicals used to fight fires.

What Should You Do With Food And Cookware That May Be Contaminated?

- **Discard all food items** that have been near a fire or exposed to airborne toxins. This includes:
 - Foods stored outside the refrigerator, such as bread, fruits, and vegetables.
 - Raw food or food in permeable packaging, for example cardboard, plastic wrap, etc.
 - All foods in cans, bottles, and jars. While they may appear to be okay, the heat from the fire can damage the containers and can activate food spoilage bacteria, and
 - Foods stored in refrigerators or freezers. Refrigerator seals are not airtight, and fumes can get inside.
- **Sanitize cookware** exposed to firefighting chemicals by washing in soap and hot water. Submerge for 15 minutes in the bleach sanitizing solution (solution recipe on page 13).

IMPORTANT!

Chemicals and toxic fumes cannot be washed off food.
The food must be thrown in the garbage.

TIPS FOR SAFE CLEANUP AFTER A DISASTER

- Get a tetanus shot before attempting any cleanup.
 - Tetanus shots are good for 10 years.
 - It might be a good idea to get a tetanus booster shot, even if you have had one within 10 years.
- Be sure to always wear gloves when cleaning after a disaster.
 - Rubber gloves for cleaning and sterilizing.
 - Heavy duty leather gloves for debris removal.
- Wear a mask to prevent you from inhaling anything harmful.
- When removing debris be sure to wear safety glasses, long pants, and shoes (preferably work boots).
- Make a new bleach solution after each use. The solution used to soak pots and pans should not be reused to clean counters.
- Be sure to wash your hands often with clean water and soap. If you do not have access to clean water you can use hand cleaners that contain alcohol.



Hint: Make sure you apply soap and rub your hands together for 20 seconds before rinsing.



- Watch out for animals, especially poisonous snakes, that may be hiding in the debris. A long stick can be used to check the debris.

Hint: If you need help with your clean up, there are different organizations and churches you can contact.

FOOD RECALLS AND FOOD TAMPERING

Food recalls are announced on TV and radio, in newspapers, and on the Internet at www.foodsafety.gov

If You Have A Food Product That Has Been Recalled:

- **Return the product** to the store or place of purchase, or
- **Throw the product away.** Do not eat the recalled product.

Signs Of Food Tampering

- **Broken seals** on or around the package.
- **Safety button** on the jar lid has been popped.
- **Unusual stains** on the product—discoloration, mold, or liquid on products are signs that the product is not safe.
- **Product has an unusual smell or odor.**
- **Damage to the package** - To see if there is damage, compare the container to other containers on the shelf.



If A Food Product Has Been Tampered With Contact:

- **Local Health Department:** contact information can be found in the phone book or on the Internet.
- **Food and Drug Administration Hotline at:**
1-301-443-1240 for Seafood, Fruit, Vegetables, Eggs, and other Non-meat Items.
- **US Department of Agriculture Hotline at:**
1-800-535-4555 for Meat and Poultry.

Signs of a Foodborne Illness include:

Stomach Cramps, Fever, Nausea, Vomiting, Chills, Diarrhea, and a Headache.

PREVENTING FOODBORNE ILLNESS AT HOME EVEN WHEN THERE IS NOT AN EMERGENCY



- **Wash** cutting boards, utensils, knives, and counter tops in hot soapy water **before**, **during**, and **after** each time you cook.
- **Wash hands** often during food preparation, especially before cooking and after handling raw meat, poultry, eggs, or seafood.
- **Wash** your fruits and vegetables before you eat or cook them.



- **Separate the ready-to-eat foods from the raw foods.** Store cooked foods and raw foods in different compartments in the refrigerator.
- **Use different cutting boards** (one for fruits and vegetables and one for raw meats, poultry, and seafood).
- **Put cooked foods on a clean plate.** Never use the same plate that held the raw food.



Cook.

- **Use a food thermometer** to measure the internal temperature of the food. This is the only way to make sure that your food is cooked to a safe temperature. Safe temperatures can be found at: http://www.fsis.usda.gov/Fact_Sheets/Use_a_Food_thermometer/index.asp#chart

Always Keep Hot Foods Hot And Cold Foods Cold!



Chill.

- **Refrigerate or Freeze** foods within one hour to keep any bacteria from growing.
- **Use an appliance thermometer** to make sure your refrigerator and freezer are at the proper temperatures.
 - Refrigerator - 40 degrees F (4.4 degrees C) or below
 - Freezer - 0 degrees F (-17.7 degrees C) or below
- **Correct ways to thaw foods**
 - **Overnight in the refrigerator** (until ready to cook).
 - **Under cold running water.**
 - **In microwave**, then cook immediately.

<http://www.fsis.org>

This booklet has been prepared by the staff of the School of Agriculture and Consumer Sciences at Tennessee State University, in collaboration with RTI International and Jackson State Community College. Funding was provided by the National Integrated Food Safety Initiative, National Institute of Food and Agriculture, US Department of Agriculture under project number TENX-2007-01846.

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**I hope you found this
information helpful!**



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