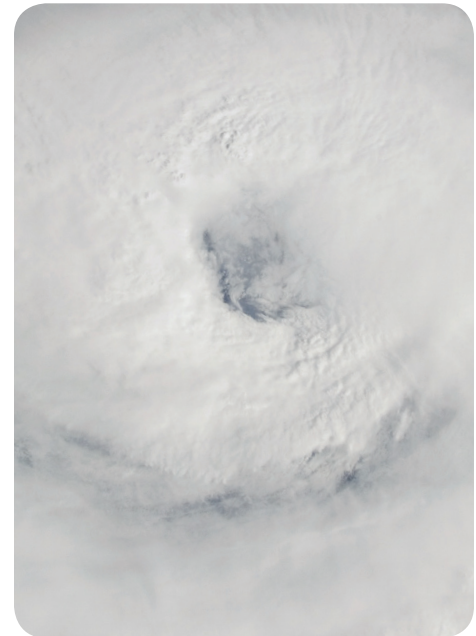


# Prepare for HURRICANES and FLOODS

## Advice From FDA



NASA

**H**ere are resources from the Food and Drug Administration (FDA) on how to keep food, medical products, and pets safe during an emergency.

### FOOD

Food that has been exposed to flood waters or that hasn't been properly refrigerated can cause illness.

- **When in doubt, throw it out.** Don't eat food that may have been exposed to flood water.
- **Use bottled water if it is available.** Don't drink water that may have been exposed to flood water. If you don't have bottled water, boil water at a rolling boil for one minute to make it safe.
  - **Follow these steps if you can't boil water.**
    - If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for disinfection.
    - Add 1/8 teaspoon (or 8 drops) of regular, unscented, liquid household bleach per each gallon of water. Stir it well and let it stand for at least 30 minutes before you use it.
    - Store disinfected water in clean containers with covers.
- **Keep refrigerator and freezer doors closed.** If the power goes out, keep refrigerator and freezer doors closed as much as possible. Your refrigerator will keep food cold for about 4 hours if it's

unopened. A full freezer will keep an adequate temperature for about 48 hours if the door remains closed.

- **Use appliance thermometers.** Thermometers should be in your refrigerator and freezer. When power is restored, check your freezer thermometer. If it reads 40°Fahrenheit, the food is safe and may be refrozen. Refrigerated food should be safe as long as the power was out no more than 4 hours and the door has remained closed.
- **Be prepared-have coolers and ice or frozen gel packs.** Coolers can help keep refrigerator food cold. If the power will be out for more than 4 hours, store foods that require refrigeration so they are in contact with ice or frozen gel packs. Purchase or make ice cubes and store in the freezer for use in the refrigerator or in a cooler. Freeze gel packs ahead of time for use in coolers.
- **Throw out spoiled food.** Discard any refrigerated perishable foods—such as meat, poultry, seafood, eggs, or leftovers—that have been above 40°Fahrenheit for 2 hours or more.

Returning Home After a Hurricane or Flood  
<http://www.cfsan.fda.gov/~dms/fsdisas5.html>

Food and Water Safety  
<http://www.cfsan.fda.gov/~dms/fsdisas.html>

### MEDICINE

If you are in an area that may flood ...

- **Keep your medication containers in zippered plastic bags.** Store them in your home in a place less likely to flood.
- **Keep a list of your medications.** Be sure to include:
  - the name of the medicine
  - the dose of the medicine
  - how frequently you take the medicine
  - your doctor's name and phone number
- **Take the bags and medications with you if you must evacuate.**

If a medication container falls into flood water ...

- **Replace the medication.** That's the safest approach.

But during an emergency, replacing

your medicines may not be easy.

- **If the container gets wet but it appears that flood water did not touch the medicine**, then use the medication, but only until a replacement can be obtained.
- **Do not use the medication if any pills were touched by flood water.**
- **Save the original containers.**
- **Contact your physician or local public health provider for guidance.**

Safe Drug Use After a Natural Disaster

<http://www.fda.gov/cder/emergency/water-refrig.htm>

## INSULIN

If a hurricane strikes, people with diabetes may not be able to refrigerate their insulin.

- **Replace the medication with a new supply.** Temperature sensitive drugs, like insulin, lose potency if not refrigerated, so they should be replaced with a new supply as soon as possible.
- **Insulin products may be left unrefrigerated (between 59 and 86°F) for up to 28 days** and still maintain potency.
- **Contact a hospital or other health care provider for guidance.**

Insulin Storage and Switching Between Products in an Emergency

<http://www.fda.gov/cder/emergency/insulin.htm>

## MEDICAL DEVICES

In an emergency, follow these tips for safe use of medical devices and equipment.

- **Keep your medical device and supplies clean and dry.**
- **Seek emergency services** immediately if you depend on your device to keep you alive.
- **Request evacuation.** If possible, notify your local public health

authority to request evacuation before bad weather occurs.

- **Use battery powered flashlights or lanterns** rather than gas lights or torches when oxygen is in use. This lowers the risk of fire.
- **Contact your distributor or device manufacturer** if your device appears to be damaged or you need a back-up device.
- **Check all power cords and batteries** to make sure they are not wet or damaged by water. If electrical circuits and electrical equipment have gotten wet, turn off the power at the main breaker.
- **Never run a generator inside your home or garage unless the equipment has been professionally installed and vented.**

Medical Devices and Hurricanes

<http://www.fda.gov/cdrh/emergency/hurricane.html>

Medical Devices Requiring Refrigeration

<http://www.fda.gov/cdrh/emergency/refrigeration.html>

## VACCINES AND OTHER BIOLOGICS

Most biological products, including bacterial and viral vaccines, allergenic extracts (e.g. for allergy shots and tests), and blood products, require specific storage conditions to maintain their safety, purity, and potency. This type of information is indicated in the product labeling.

These products may often be found in health clinics, physicians' offices and patients' homes where emergency back up power may not be available.

Here are some suggested actions to preserve cold or frozen storage conditions during a power outage:

### Vaccines and Non-Blood Biologics

- **Note the time of the power outage and do not open freezers and refrigerators** until power is restored. This will help conserve the cold mass of the products.
- **Do not open units to check temperatures during a power outage**, as many products will maintain their potency for a few days in a closed refrigerator.
- **For vaccines requiring freezer storage, you may consider removing them from the freezer after one day** (if the power outage continues) and packing them in dry ice. But if the vaccines are not cold to the touch upon removal from the freezer, you may wish to consider not using them.

### Blood Products and Plasma Derivatives

Blood banks and plasma centers typically have back up generators and emergency procedures in place for storing products in the event of a power outage. For those facilities and in-home users that may not have emergency back up power, the following may be helpful:

- **There is some evidence that lyophilized coagulation products such as Factor VIII and Factor IX may be stored at room temperature for a fairly long period of time** without loss of factor potency. If you are concerned about the exposure or efficacy of a particular product, please contact the supplier or the manufacturer.
- **Many immune globulin products are licensed for storage at 36 to 46 degrees Fahrenheit**, and some products may be stored at room temperature for all or part of the time before expiration. Because storage temperatures and times are specific to each product, you should follow the package insert recommendations for Immune Globulin Intravenous (IGIV), intramuscular IG (IG),

and subcutaneous IG (IGSC) products. Products requiring lower temperatures can be stored on wet ice. All of these products should not be frozen.

### TAKING CARE OF PETS

When a hurricane strikes, it's a dangerous situation for people AND pets.

- **Try to take your pets with you** if you leave home during an emergency.
- **Plan in advance.** Find out which motels or hotels accept pets in an emergency. Or, plan to go to the home of a friend or relative who will allow you to bring your pet.
- **Prepare a disaster kit that you can grab as you leave home.** The kit should include pet food, medicines, vaccination records, and pet insurance information.
- **Make arrangements for a neighbor or nearby friend to take care of your pets** in case you

get trapped away from home.

- **Make sure your pets have identification tags** (including rabies and license tags, if applicable.) This may help reunite you with your pets if you get separated. Identification tags should provide your name, home address, a phone number where you can be reached, and an out-of-state phone number of someone with whom you will be in contact during or soon after the disaster/evacuation.
- **Have a leash, collar or harness for your pets (cats and dogs) and pet carriers or transport kennels/cages** for each pet.

Taking Care of Pets

<http://www.fda.gov/cvm/disaster.htm>

This article appears on FDA's Consumer Health Information Web page ([www.fda.gov/consumer](http://www.fda.gov/consumer)), which

features the latest updates on FDA-regulated products. Sign up for free e-mail subscriptions at [www.fda.gov/consumer/consumerenews.html](http://www.fda.gov/consumer/consumerenews.html).

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### For More Information

Severe Weather Conditions and Biological Products  
<http://www.fda.gov/cber/weatherimpact.htm>

FDA's Web Page on Hurricanes:  
<http://www.fda.gov/oc/opacom/hottopics/hurricane.html>

Disasters and Emergencies:  
 Hurricanes (Department of Health and Human Services)  
[www.dhhs.gov/disasters/emergency/naturaldisasters/hurricanes/index.html](http://www.dhhs.gov/disasters/emergency/naturaldisasters/hurricanes/index.html)



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