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FDA Offers Tips about Medical Devices and Hurricane Disasters



In the aftermath of Hurricane Katrina, and in preparation for other disaster situations, FDA is offering tips to help people who use medical devices.

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General Safety

- Keep your device and supplies clean and dry.
- If you depend on your device to keep you alive, seek emergency services immediately. If possible, notify your local Public Health Authority to request evacuation prior to adverse weather events.
- Always use battery powered flashlights or lanterns rather than gas lights or torches when oxygen is in use (to minimize the risk of fire).
- If your device appears to be damaged, or if you need a back-up device, contact your distributor or device manufacturer.
- 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.
- Maintain your device only in a well lit area so you can assess your device's performance (e.g., refilling your insulin pump, checking your glucose meter).
- Keep your device in as clean and secure location as possible: off the ground, away from animals or crowded areas.
- Always check your device for pests before you use it (e.g., syringes, mechanical devices).

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Power Outage

- Notify your electric company and fire department to let them know you have a medical device that needs power (e.g., ventilator, apnea monitor).
- Read your user instructions or call your distributor or device manufacturer to find out if your device can be used with batteries or a generator.
- Locate a generator if possible.

- Make sure you check for water before plugging in your device. Do not plug in a power cord if the cord or the device is wet.
- When the power is restored, check to make sure the settings on your medical device have not changed (often medical devices reset to a default mode when power is interrupted).



Warning about Potential Carbon Monoxide Problems when Using Generators

Since many medical devices used in the home require a source of electrical power, generators are often used to supply electricity during a general power outage. The following points should be followed to prevent carbon monoxide poisoning.

- Never run a generator, pressure washer, or any gasoline-powered engine inside a basement, garage, or other enclosed structure, even if the doors or windows are open, unless the equipment is professionally installed and vented.
- Never run a motor vehicle, generator, pressure washer, or any gasoline-powered engine outside an open window or door where exhaust can vent into an enclosed area.



Water Contamination

Some medical devices and equipment, such as dialyzers or IV pumps, require safe water in their use, cleaning, and maintenance.

Hurricanes, especially if accompanied by a tidal surge or flooding, can contaminate the public water supply. In the area hit by a hurricane, water treatment plants may not be operating; even if they are, storm damage and flooding can contaminate water lines.

Listen for public announcements about the safety of the municipal water supply.

In an emergency situation, follow these steps to ensure that your water is safe for use with your medical device:

- Use only bottled, boiled, or treated water until your supply is tested and found safe.
- If you use bottled water, be sure it came from a safe source. If you do not know that the water came from a safe source, you should boil or treat it before you use it.
- Boiling water, when practical, is the preferred way to kill harmful bacteria and parasites. Bringing water to a rolling boil for 1 minute will kill most organisms.
- When boiling water is not practical, you can treat water with chlorine tablets, iodine tablets, or unscented household chlorine bleach (5.25% sodium hypochlorite).
- If you use household chlorine bleach, add 1/8 teaspoon (~0.75 mL) of bleach per gallon of water if the water is clear. For cloudy water, add 1/4 teaspoon (~1.50 mL) of bleach per gallon. Mix the solution thoroughly and let it stand for about 30 minutes before using it.

Note: Treating water with chlorine tablets, iodine tablets, or liquid bleach will not kill parasitic organisms.

Use a bleach solution to rinse water containers before reusing them. Use water storage tanks and other types of containers with caution. For example, fire truck storage tanks and previously used cans or bottles may be contaminated with microbes or chemicals.



Sterility

- When performing medical procedures, maintain a clean environment by using bleach, alcohol, or a disinfectant in the area you are working (e.g., catheter changes, dressing changes, suctioning).
- Check sterile packaging to make sure it is dry and intact (e.g., sterile gauze).
- When you purchase supplies, always check the packaging to make sure it hasn't been damaged.



Re-use of Medical Devices

Do not reuse a medical device intended for single use.

If you have supplies that are intended for multiple use with your medical device, follow all the procedures for cleaning and disinfecting. If you find that you need additional single use products, contact a healthcare provider or emergency response personnel.

If your device or its components can be cleaned with sterile water, follow the above procedures for ensuring that your water is safe. For some medical devices, other cleaning agents may be specified by the manufacturer.



Dealing with Heat and Humidity

Heat and humidity can have an effect on home diagnostic test kits (including blood glucose tests used by people with diabetes). Test results may not be accurate. Read your owner's manual to make sure your test kit is performing properly.

Special Information about Using Blood Glucose Meters

Heat and humidity can damage blood glucose meters and test strips.

If you use a blood glucose meter, check the meter and test strip package insert for information on use during unusual heat and humidity. Store and handle the meter and test strips according to the instructions. Perform quality-control checks to make sure that your home glucose testing is

accurate and reliable.



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To protect your device from heat and humidity, follow the steps below:

- Use a dry cloth to wipe off your device regularly (e.g., mechanical infusion pumps).
- Keep your device out of direct sunlight.
- Enclose your medical products in plastic containers to keep them dry (e.g., wound care supplies).
- Do not use ice if there is a danger of water contamination; use dry ice or instant cold packs to keep your device cool (e.g., prefilled syringes).
- Do not use disposable devices that are wet (e.g., wound dressings, disposable thermometers, tubing).



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Treating Snakebites

- If medical care is rapidly available, then initial treatment should include immobilizing the affected limb and minimizing physical activity as much as possible (ideally entirely immobilizing the patient) during transport to a medical facility.
- If care is delayed, a loose-fitting pressure bandage that does not restrict arterial and venous flow (but does limit lymphatic flow) is recommended as a first-aid measure while the victim is moved as quickly as possible to a medical facility. Tourniquets that impair blood flow to the affected limb are generally contraindicated.
- Specific therapy for snakebites varies with the type of snake. Procedures such as making cuts over the bite marks and attempting to suck out the venom **should not** be done. Ice **should not** be placed on the bite. Immediate transport to a medical facility and treatment with snake antivenin is the treatment of choice.

The Food and Drug Administration regulates antivenins as part of its oversight of biological products. The agency requires certain criteria to be met before these materials are sold, including standards for purification, packaging and potency. The FDA also regulates antivenin labeling, ensuring that data on potential side effects and other pertinent information are available.



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