

DISASTER RESPONSE: HEALTH & SAFETY INFORMATION GUIDE



In the wake of a disaster, many professionals are deployed, and others volunteer to assist those in need. However, anyone contributing to the recovery effort should also take precautions. This document lists some basic information that should be followed.

IMMUNIZATIONS/INFECTIOUS DISEASES

- Individuals should be up to date on immunizations, but the most crucial are tetanus, hepatitis A, and hepatitis B. A tetanus booster should be obtained if the last injection was more than 10 years ago.
- If a person is unsure of their hepatitis B status, they should talk to their primary care physician about starting the three-shot series and possibly receiving hepatitis B immunoglobulin treatment.
- Since sanitation is of great concern, hepatitis A prophylaxis is important. Hepatitis A immunoglobulin provides immediate protection and lasts up to 3–5 months. A hepatitis A immunization may be given at the same time as the immunoglobulin, but immunity can take two weeks to adequately develop.
- If housing includes living in small, cramped quarters with numerous other individuals, then one should consider a meningococcal vaccination. However, this decision should be discussed with your primary care physician.
- Floodwater can carry diseases such as typhoid and/or cholera. However, these infectious diseases are not endemic to the United States, so an outbreak is not likely.
- Wash your hands frequently with soap and water especially before eating and drinking.
- Have any open wounds or infections evaluated immediately.

CLIMATE

- Working in a hot and humid working environment can lead to an increased risk of dehydration, heat exhaustion, or even heat stroke, which can result in seizure or death.
- Wear loose-fitting but breathable clothing, drink plenty of fluids (water or sports drinks), and try not to over-exert your activities. Use sunscreen and wear a hat if available.

- Avoid alcohol or too many caffeine products, including energy drinks.
- Signs of heat exhaustion include weakness, headache, dizziness, muscle weakness/cramps, nausea and vomiting, dehydration, a fast heartbeat, or a worried feeling. If you have these symptoms, seek a cool, shady place to rest and drink fluids.
- Seek medical help if the above symptoms do not resolve within 15 to 30 minutes or if skin feels hot and dry (but not sweaty), confusion or loss of consciousness, frequent vomiting, or shortness of breath or trouble breathing.

ANIMALS/REPTILES/INSECTS

- One should be aware of the different types of animals and reptiles that may be seen while working. These include raccoons, squirrels, opossums, armadillos, rats, mice, moles, skunks, groundhogs, beavers, feral animals, bats, alligators, and snakes (both poisonous and non-poisonous).
- Poisonous snakes include rattlesnakes, water moccasins, copperheads, cottonmouth, and/or coral snakes.
 - Like other residents in the path of a major storm, snakes become displaced and left homeless. As a result, they may seek shelter and food inside houses, storage sheds, barns, and other buildings.
 - When working around snakes, wear heavy work gloves and boots and long pants when working in areas cluttered with debris. Avoid wearing shorts.
 - Watch where you place your hands and feet when removing or cleaning debris.
 - Look carefully before you place your fingers in and under piles of debris that have been undisturbed at for any length of time.
 - Never step over logs or other obstacles unless you can see the other side.
 - If you encounter a snake, step back and allow the animal to proceed on its way. Snakes will

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often move out of the way but watch where they go in case it's another debris pile or under a house, car, or other object.

- There are many different insects and spiders that one may encounter, so protective clothing should be worn when clearing debris.
- Another insect to be concerned with is the mosquito. There are documented cases of West Nile virus and Zika in the United States. One can protect themselves from mosquito bites by trying to avoid areas with stagnant water, wearing long-sleeved shirts or long pants, and using mosquito nets at night.
- DEET repellent sprays of strength no greater than 30% can be used on exposed skin and clothing to help prevent bites. More frequent reapplication of the DEET spray may be necessary if sweating profusely or frequently getting wet.

FOOD/WATER-BORNE ILLNESSES

- Avoid consuming the following: tap water, chipped ice, unpasteurized milk, salads, sauces or salsas, uncooked or undercooked meats or seafood, unpeeled fruits, and street vendor food.
- The following items are safe for consumption: carbonated soft drinks or water, boiled water, purified water, hot/thoroughly grilled/boiled foods, processed/package foods, cooked vegetables and peeled fruits, bottled water, or dry goods (nuts/dried fruits).

PROTECTIVE EQUIPMENT

- Despite the chaotic conditions, universal precautions should be used at all times.
- Gloves should be used in case of contact with blood, saliva, semen, or other bodily fluids. Goggles and face masks should be used if the potential exists for contact with fluids via the respiratory route. Finally, gowns should be considered if the potential exists for exposure to large amounts of bodily fluid.
- For some work in flooded areas, you will need the following personal protective equipment: helmets, goggles, heavy work gloves, and watertight boots with steel toe and insole (not just steel shank).
- Hearing protection may be necessary to combat

excessive noise from equipment such as chain saws, backhoes, tractors, pavement breakers, blowers, and dryers, which may cause damage to the ears.

PHYSICAL AND CHEMICAL HAZARDS

- Since there is a large amount of debris in the work area, there is great potential to sustain cuts, puncture wounds, or exposure of one's body to chemicals or gasoline.
- When clearing debris by hand, use proper lifting techniques and use a team or equipment to lift heavier items.
- If working near downed power lines, always consider electrical lines energized until deactivated and tested with appropriate device. Many fatalities have occurred due to inappropriate testing, inappropriate grounding, or because the lines were powered by a secondary source, usually a portable generator.
- Portable generators can produce dangerous levels of carbon monoxide. Always operate in a well-ventilated area outside.
- Following a disaster, the presence of structural instability, confined spaces, hazardous materials releases, and increased fire risk from inoperable fire control systems can create unpredictable and dangerous environments. Great care must be taken to operate in these dynamic environments.

MENTAL AND EMOTIONAL HEALTH

- Caring for others
 - Responders should be prepared to assist and manage victims with mental health illnesses.
 - It is likely that due to a lack of resources and or a loss of property that victims of natural disaster who have a mental illness may not have their medications. Responders should do their best to connect these patients with facilities that can provide appropriate care and assistance.
- Responders
 - Long workdays, hot and humid conditions, and the stench from sewage or decomposing bodies is not only physically exhausting, but mentally as well.

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- Psychological and emotional support is very important during these times.
- Seek support from your colleagues, friends, family, counselors, or any mental health professional as needed.
- The IAFF has established peer counseling groups that often operate in affected areas.
- All responders should continually monitor themselves and others for signs of stress and fatigue.
- Continued long hours of work, combined with emotional and physical exhaustion and losses from damaged homes, can create a highly stressful situation for flood cleanup responders.
- Responders exposed to these stressful conditions have an increased risk of injury and emotional crisis and are more vulnerable to stress-induced illnesses and disease.

MEDICAL KITS

Constructing a basic medical kit is a simple and easy process and can be useful since limited resources are available. Most of these items are available over the counter and do not require a prescription, except for the antibiotics.

A kit should include the following:

- Usual prescription medications (including additional doses)
- Aspirin, Tylenol, or other anti-inflammatory medications
- Throat lozenges
- Decongestants (use with caution in hot and humid environments)
- Antihistamines (use with caution in hot and humid environments)
- Cough suppressants
- Loperamide (Imodium or generic equivalent)
- Antibacterial wipes/towelettes
- Antibiotics for diarrhea
- Sunscreen
- Insect repellent
- Bandages, band-aids, and adhesives
- Tweezers and scissors
- Antacids
- Digital thermometer