

## INFECTION PREVENTION TIPS FOR FLOOD AND HURRICANE SEASON

APIC offers advice to help protect consumers and reduce the risk of infection during flood and hurricane season.

**Nothing beats hand hygiene** – It's critical to remember to practice basic hand hygiene during the emergency period. Always wash your hands with soap and warm water. If your local health authority has indicated the water is unsafe, use soap and bottled water or water that has been boiled or disinfected. Wash hands before preparing food or eating, after toilet use, after participating in clean-up activities, and after handling articles contaminated with floodwater or sewage. Use an alcohol-based hand sanitizer if you have a limited supply of clean water.

**Prevent mold growth** – Clean up and dry out your home quickly (within 24-48 hours) to prevent mold growth. If you choose to hire a professional to do the clean-up, make sure the contractor has experience with mold. Use fans and dehumidifiers to remove excess moisture from your home. To avoid spreading mold, place fans at windows or doors and blow air outward rather than inward. Throw away porous items (for example carpet and upholstered furniture) that cannot be dried quickly. Have your heating, ventilating and air-conditioning (HVAC) system checked by a service professional who is experienced in mold clean-up **before turning it on** to avoid spreading mold throughout the house.

**Wear protective gear** – According to a survey by the Iowa Department of Public Health, 80 percent of injuries sustained so far have happened during clean-up activities. However, fewer than half of the respondents remember how to prevent injuries. To avoid injury, wear sturdy shoes, gloves, and other protective gear. Also keep your feet protected from prolonged moisture and dry your feet regularly. Wear ear plugs if you are working around excessive noise. Prevent mosquito bites by wearing long pants, socks and long-sleeved shirts and by using insect repellent containing DEET or Picaridin.

**Dust mask do's and don'ts** – According to the Iowa Department of Public Health survey, about three-fourths of respondents thought they should always wear a mask during flood clean-up. In some cases, wearing a mask the entire time can actually present a health risk as it can cause stress on the lungs and heart, and contribute to heat exhaustion. Wear a mask only during activities that may stir up mold spores or excessive dust. Otherwise, ensure good air circulation by opening windows and doors.

**Cleaning advice** -- To remove mold or other contaminants, wear rubber gloves, open doors and windows, and clean with a solution of 1 cup of bleach per gallon of water. Do not mix bleach with ammonia or any other cleaner. Discard wooden cutting boards, cracked or chipped dishes, plastic utensils, baby bottle nipples and pacifiers that have been contaminated with floodwater. Thoroughly clean and sanitize all food preparation surfaces. Wash all metal pans, ceramic dishes and utensils with hot soapy, non-contaminated water, rinse in clean, hot water, and sanitize by immersing them for 15 minutes in a solution of 1 teaspoon of bleach per quart of warm (not hot) water. Let dishes air dry on a sanitized dish rack.

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**Protecting the kids** -- For infants, use only canned baby formula. Use a solution of 1 cup bleach in 5 gallons of water to disinfect toys that have come in contact with floodwater. Let toys air dry after cleaning. Some toys, such as stuffed animals and baby toys, cannot be disinfected; they should be discarded. Do not allow children to play in floodwater. Wash children's hands frequently.

**Wound care** – During flood clean-up the risk of wounds may increase. If you are unsure or have not received a tetanus booster in the last five years, see your medical provider. Immediately clean all open wounds with soap and clean water. Seek immediate medical attention if a wound gets red, swells or drains.

**Carbon monoxide poisoning** – During flood and hurricane clean-up, there is often a rise in carbon monoxide poisoning cases. To ensure the safety of you and your family, never use a gas-powered generator in an enclosed area, such as a garage or basement. The exhaust from a portable generator contains carbon monoxide that can cause sudden illness and death if inhaled.

**Water safety** – Water may not be safe to drink, clean with, or bathe in after a flood. Follow local instructions to use bottled water or disinfect water for cooking, cleaning or bathing. Boiling water is the preferred way to kill harmful organisms. Bring water to a rolling boil for one minute to kill bacteria. If you can't boil water, you can treat water with chlorine tablets, iodine tablets or add 1/8 teaspoon of newly purchased, unscented liquid household bleach per gallon of water. If using bleach, stir the water well, and let it stand for 30 minutes before you use it.

**Food safety: when in doubt, throw it out** – Throw away all perishable foods and any food that may have come in contact with floodwater including canned foods (store-bought and home-canned) and any opened or unopened jars with waxed cardboard seals such as mayonnaise and salad dressing. Throw out preserves sealed with paraffin. Discard all foods in cardboard boxes, paper, foil or cellophane. Toss all spices, seasonings, extracts, flour, sugar, grain, coffee and other staples in containers.

*APIC's mission is to improve health and patient safety by reducing risks of infection and other adverse outcomes. The association's 12,000 members have primary responsibility for infection prevention, control and hospital epidemiology in healthcare settings around the globe. APIC advances its mission through education, research, collaboration, practice guidance, public policy, and credentialing. Visit APIC online at [www.apic.org](http://www.apic.org)*

**Resources:**

Iowa Department of Public Health

[http://www.idph.state.ia.us/common/press\\_releases/2008/080711\\_flood\\_cleanup.asp](http://www.idph.state.ia.us/common/press_releases/2008/080711_flood_cleanup.asp)

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[http://www.apic.org/AM/Template.cfm?Section=Flood\\_Disaster&Template=/CM/ContentDisplay.cfm&ContentID=11229](http://www.apic.org/AM/Template.cfm?Section=Flood_Disaster&Template=/CM/ContentDisplay.cfm&ContentID=11229)

Centers for Disease Control and Prevention

<http://www.bt.cdc.gov/disasters/floods/>

US Environmental Protection Agency

<http://www.epa.gov>

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