



Flood Water After a Disaster or Emergency

When returning to your home after a hurricane or flood, be aware that flood water may contain sewage. Protect yourself and your family by following these steps:

Inside the Home

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Remove and discard items that cannot be washed and disinfected (such as, mattresses, carpeting, carpet padding, rugs, upholstered furniture, cosmetics, stuffed animals, baby toys, pillows, foam-rubber items, books, wall coverings, and most paper products).
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks, and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process by using fans, air conditioning units, and dehumidifiers.
- After completing the cleanup, wash your hands with soap and warm water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands).
 - Or you may use water that has been disinfected for personal hygiene use (solution of 1/8 teaspoon [~0.75 milliliters] of household bleach per 1 gallon of water). Let it stand for 30 minutes. If the water is cloudy, use a solution of 1/4 teaspoon (~1.5 milliliters) of household bleach per 1 gallon of water.
- Wash all clothes worn during the cleanup in hot water and detergent. These clothes should be washed separately from uncontaminated clothes and linens.
- Wash clothes contaminated with flood or sewage water in hot water and detergent. It is recommended that a laundromat be used for washing large quantities of clothes and linens until your onsite waste-water system has been professionally inspected and serviced.
- Seek immediate medical attention if you become injured or ill.

See also [Reentering Your Flooded Home \(http://emergency.cdc.gov/disasters/mold/reenter.asp\)](http://emergency.cdc.gov/disasters/mold/reenter.asp), [Mold After a Disaster \(http://emergency.cdc.gov/disasters/mold/\)](http://emergency.cdc.gov/disasters/mold/), and [Cleaning and Sanitizing With Bleach after an Emergency \(http://emergency.cdc.gov/disasters/bleach.asp\)](http://emergency.cdc.gov/disasters/bleach.asp).

Outside the Home

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Have your onsite waste-water system professionally inspected and serviced if you suspect damage.
- Wash all clothes worn during the cleanup in hot water and detergent. These clothes should be washed separately from uncontaminated clothes and linens.
- After completing the cleanup, wash your hands with soap and warm water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands).
 - Or you may use water that has been disinfected for personal hygiene use (solution of 1/8 teaspoon [~0.75 milliliters] of household bleach per 1 gallon of water). Let it stand for 30 minutes. If the water is cloudy, use solution of 1/4 teaspoon (~1.5 milliliters) of household bleach per 1 gallon of water.

- Seek immediate medical attention if you become injured or ill.

Health Risks

Flood waters and standing waters pose various risks, including infectious diseases, chemical hazards, and injuries.

Infectious Diseases

Diarrheal Diseases

Eating or drinking anything contaminated by flood water can cause diarrheal disease. To protect yourself and your family:

- Practice good hygiene ([handwashing](http://www.cdc.gov/healthywater/emergency/hygiene/index.html#handwashing) (<http://www.cdc.gov/healthywater/emergency/hygiene/index.html#handwashing>)) after contact with flood waters.
- Do not allow children to play in flood water areas.
- Wash children's hands frequently (always before meals).
- Do not allow children to play with toys that have been contaminated by flood water and have not been disinfected.
For information on disinfecting certain nonporous toys, visit CDC Healthy Water's [Cleaning and Sanitizing with Bleach](http://www.cdc.gov/healthywater/emergency/cleaning/index.html#bleach) (<http://www.cdc.gov/healthywater/emergency/cleaning/index.html#bleach>) section.

Wound Infections

Open wounds and rashes exposed to flood waters can become infected. To protect yourself and your family:

- Avoid exposure to flood waters if you have an open wound.
- Cover open wounds with a waterproof bandage.
- Keep open wounds as clean as possible by washing well with soap and clean water.
- If a wound develops redness, swelling, or drainage, seek immediate medical attention.

For more information, visit CDC's [Emergency Wound Care After a Natural Disaster](http://emergency.cdc.gov/disasters/woundcare.asp) (<http://emergency.cdc.gov/disasters/woundcare.asp>).

Chemical Hazards

Be aware of potential chemical hazards during floods. Flood waters may have moved hazardous chemical containers of solvents or other industrial chemicals from their normal storage places.

- [Protect Yourself From Chemicals Released During a Natural Disaster](http://emergency.cdc.gov/disasters/chemicals.asp) (<http://emergency.cdc.gov/disasters/chemicals.asp>)
- [Chemical Emergencies](http://emergency.cdc.gov/chemical/) (<http://emergency.cdc.gov/chemical/>)

Injuries

Drowning

Flood water poses drowning risks for everyone, regardless of their ability to swim. Swiftly moving shallow water can be deadly, and even shallow standing water can be dangerous for small children.

Vehicles do not provide adequate protection from flood waters. They can be swept away or may stall in moving water.

Animal and Insect Bites

Flood waters can displace animals, insects, and reptiles. To protect yourself and your family, be alert and avoid contact.

- [Protect Yourself from Animal- and Insect-Related Hazards After a Disaster](http://emergency.cdc.gov/disasters/animalhazards/) (<http://emergency.cdc.gov/disasters/animalhazards/>)
- [Wildlife in Disasters \[FEMA\]](http://www.mmrs.fema.gov/rebuild/recover/wildlife.shtm) (<http://www.mmrs.fema.gov/rebuild/recover/wildlife.shtm>)  (<http://www.cdc.gov/Other/disclaimer.html>)

Electrical Hazards

Avoid downed power lines.

- [Protect Yourself and Others From Electrical Hazards After a Disaster](http://emergency.cdc.gov/disasters/electrical.asp) (<http://emergency.cdc.gov/disasters/electrical.asp>)

Wounds

Flood waters may contain sharp objects, such as glass or metal fragments, that can cause injury and lead to infection.

- [Emergency Wound Care After a Natural Disaster](http://emergency.cdc.gov/disasters/woundcare.asp) (<http://emergency.cdc.gov/disasters/woundcare.asp>)

Resources and Guidance

- [After a Flood \(/disasters/floods/after.asp\)](/disasters/floods/after.asp)
- [Floods \[FEMA\]](http://www.ready.gov/floods) (<http://www.ready.gov/floods>)  (<http://www.cdc.gov/Other/disclaimer.html>)
- [Prevent Illness and Injuries After a Hurricane or Flood \(/disasters/hurricanes/illnessinjury.asp\)](/disasters/hurricanes/illnessinjury.asp)

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Content Source: [National Center for Environmental Health \(NCEH\)](#); [Agency for Toxic Substances and Disease Registry \(ATSDR\)](#); [National Center for Injury and Violence Prevention and Control \(NCIPC\)](#)

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