

Standing or Flood Waters

Health Risks

After a flooding emergency, finding clean running water can be difficult. Flood waters may contain potentially dangerous materials, such as fecal material from overflowing sewage systems, agricultural runoff, and chemicals from industrial areas. Wading in flood waters can also be a cause of infection or result in a variety of injuries.

Infectious Diseases

Diarrheal Diseases

There is a risk of spreading disease by eating or drinking anything contaminated by flood water. Practice good hygiene ([handwashing](#)) after contact with flood waters. Do not allow children to play in flood water areas, wash children's hands frequently (always before meals), and do not allow children to play with flood-water contaminated toys that have not been disinfected. For information on disinfecting certain non-porous toys visit CDC Healthy Water's [Cleaning and Sanitizing with Bleach](#) section.

Wound Infections

Contact of intact skin with flood water does not, by itself, usually pose a serious health risk. However, wading in contaminated flood waters with open wounds can result in serious wound infections. If possible, do not wade in flood waters if you have an open wound. If you have any open wounds keep them as clean as possible by washing well with soap and clean water to control infection. If you cannot avoid exposing open wounds to flood water try and cover with a waterproof bandage before entering the water. If a wound develops redness, swelling, or drainage, seek immediate medical attention.

Chemical Hazards

After a flood, use extreme caution when returning to your area. Be aware of potential chemical hazards during flood recovery. Flood waters may have buried or moved hazardous chemical containers of solvents or other industrial chemicals from their normal storage places.

Injuries

1. Drowning

If you enter fast-moving water, you risk drowning -- regardless of your ability to swim. Fast-moving, shallow water can be deadly. Even shallow standing water can be dangerous for small children. Cars or other vehicles do not provide

adequate protection from flood waters. Cars can be swept away or may break down in moving water.

2. Animal and Insect Bites

Wading in flood waters can bring you into contact with a variety of animals, insects, and reptiles (especially snakes). Be alert and avoid contact. Use a stick to poke through debris.

3. Electrical Hazards

Avoid any downed power lines, particularly those in water.

4. Wounds

Avoid wading in standing water, which may contain sharp objects such as glass or metal fragments that can cause injury and possibly lead to infection.

Cleaning Recommendations

The amount of bleach to mix with water depends on what you are cleaning or sanitizing. The following chart describes some items or surfaces that should and can be cleaned, the amount of bleach to mix with water, and cleaning steps for specific purposes.

Recommendations for Cleaning and Sanitizing Various Surfaces with Bleach and Water

Area or Item to be Cleaned	Amount of Bleach and Water to Mix		Cleaning Steps
	Bleach Amount	Water Amount	
Clean and Sanitize Food Cans and Surfaces			
Food-contact surfaces that may have touched floodwater [Examples: countertops, plates] Note: Throw away wooden cutting boards, baby bottle nipples, and pacifiers	1 teaspoon (4.9 mL)	1 gallon	<ol style="list-style-type: none"> 1. Wash with soap and warm, clean water. 2. Rinse with clean water. 3. Sanitize using a mixture of 1 teaspoon (4.9 mL) of bleach per gallon of clean water. 4. Allow to air dry.
Food cans that are not bulging, open, or damaged	1 cup (240 mL)	5 gallons	<ol style="list-style-type: none"> 1. Remove can labels. 2. Wash cans with soap and clean water. 3. Dip cans in mixture of 1 cup (240 mL) of bleach per 5 gallons of water.

4. Relabel cans with a marker.

Clean and Sanitize Other Household Surfaces and Items

Surfaces that do not soak up water and that may have touched floodwater [Examples: floors, stoves, sinks, certain toys, countertops, flatware, plates, and tools]	1 cup (240 mL)	5 gallons	<ol style="list-style-type: none">1. Clean surface with soap and clean water.2. Disinfect with a mixture of 1 cup (240 mL) of bleach to 5 gallons of water.3. Allow to air dry.
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For more information see:
[After a Flood: Cleanup](#)

Clean Mold Growth Off Hard Surfaces

Mold growth on hard surfaces [Examples: floors, stoves, sinks, certain toys, countertops, flatware, plates, and tools]	1 cup (240 mL)	1 gallon	<ol style="list-style-type: none">1. Mix 1 cup (240 mL) of bleach in 1 gallon of water.2. Wash the item with the bleach mixture.3. If the surface of the item is rough, scrub the surface with a stiff brush.4. Rinse the item with clean water.5. Dry the item or leave it out to dry.
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For more information see:
[Protect Yourself from Mold](#)