



A city limits sign for Cleveland, Ill., is surrounded by flood waters and ice, Feb. 28. A seven-mile-long ice jam on the Rock River forced flood waters over its banks, flooding many areas around the town. Residents were advised to evacuate and some had to be rescued by boat and Coast Guard helicopter. (AP Photo/M. Spencer Green)

# Floods: Safety and Health Issues

By Dean Magee  
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**W**ith heavy winter precipitation and spring right around the corner, flood season is upon us. Flooding not only causes considerable damage, but also creates conditions leading to disease and injury. There are many safety and health hazards associated with flooding and flood clean up that are often underestimated and overlooked by those involved.

It's important for everyone to be aware of the physical safety hazards, biological health hazards, and basic Do's and Don'ts regarding flood conditions.

The Mississippi River may not flood significantly this year, but creeks, rivers, ponds, and lakes can easily flood, especially during the spring.

Whether you live near a river, lake or low-lying flatland with occasional water in the basement, here are some tips that may be helpful to you.

- **Do not walk through flowing water** - Drowning is the number one cause of flood deaths. Most drownings occur during flash floods; six inches of moving water can knock you off your feet. Use a pole or stick to make sure that the ground is still before you go through an area where the water is not flowing.
- **Do not drive through a flooded area** - More people drown in their cars than anywhere else. Don't drive around barriers; the road or bridge may be washed out.
- **Stay away from power lines and electrical wires** - Electrocutation is also a major killer in floods. Electric current can travel through water instantly. Report downed power lines to your utility company or 911.
- **Turn off your electricity when you return home** - Some appliances, such as televisions, can shock you even after they have been unplugged. Don't use appliances or motors that have gotten wet unless they have been taken apart, cleaned and dried.
- **Watch for animals, especially snakes** - Small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals.
- **Look before you step** - After a flood, the ground and floors are covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.
- **Be alert for gas leaks** - Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns or open flames unless you are sure that the gas has been turned off and the area has been aired out.
- **Carbon monoxide exhaust kills** - Use a generator or other petroleum-product powered machine (such as a gasoline-powered sump pump) outdoors. The same goes for camping stoves; fumes from charcoal are especially deadly (cook with charcoal outdoors only).
- **Clean everything that got wet** - Floodwaters have picked up sewage, bacteria and chemicals from roads, farms, factories, and storage buildings. Exposed food, flooded cosmetics and medicines are health hazards. When in doubt, throw them out.
- **Boil your drinking water** - Wells should be pumped out and the water tested for purity before drinking. If you're in doubt, call your local public health authority.
- **Pay special attention to lifting procedures and avoid back injuries** - Cleanup workers are at risk for developing serious musculoskeletal injuries to hands, back, knees, and shoulders. Furniture and other household contents can weigh five times their original weight when they're saturated with floodwater. Use teams of two or more to move bulky, heavy objects. 🏠



## 19th St., Rock Island, Ill., During High Water of 1888

By Ron Deiss, Programs and Project Management

In the spring of 1888, the only pictures photographed by Henry Peter Bosse, a Corps' photographer who took nearly 300 photographs of scenes along the Upper Mississippi River between 1883 and 1892, were eleven views documenting the floodwaters within Rock Island, Ill., and Davenport, Iowa, on the opposite bank in Iowa, thus beginning the Corps tradition of photographing Mississippi River floods.

Bosse recorded the floodwaters in Rock Island, Ill., looking south from the roof of the Rock Island District office on the corner of Second Ave. and 19th St. This District office opened in 1869 under Col. James Wilson on the second floor above a wine and tobacco shop. To the right of the image is the famous hotel called the Harper House,

while on the left is Spencer Square Park. The crates, boxes and barrels stacked on the sidewalk against the Harper House were probably moved from the basement to prevent water damage.

The Flood of 1888 was one of the worst on the Upper Mississippi, inundating riverfronts and nearly surrounding the Rock Island District Corps Headquarters. From Dubuque to Keokuk, Iowa, the Mississippi set record- or near-record flood levels. The Muscatine, Iowa, Daily News of May 14, 1888, reported a 17.41-foot flood stage, which will stand as the highest record for years, possibly for a century, as is the highest point ever reached here, of which there is any authenticated data. While this is barely an inch higher than the great rise of

1881, an inch added to that mad flood, with a surface of three to eight miles in width, means a vast volume of water.

South of the Rock Rapids at Rock Island, large tributaries such as the Rock, Iowa, Des Moines, and Illinois transform the Mississippi into a larger, broader river. The river meanders through wide, level expanses of floodplain often miles across, containing farmhouses, villages and cities. The surrounding bluffs are low relief with gentle slopes compared to those of the northern reach of the river. Drained and levied against high water, bottomland was prized for its fertility and market advantages, although floods were always a potential hazard, causing extensive damage to crops, buildings and commerce. 🏠