



FLOODING

During recent years, floods and flash floods have caused billions of dollars in damage each year. They are among the most common and widespread of all natural hazards. Even more importantly, they're the number one weather-related killer. A flood can happen anywhere along the Mississippi, in New England, even in the desert. Some fascinating facts about floods and flash floods:

A **FLOOD** (commonly called river flood) is a high flow or overflow of water from a river or similar body of water, occurring over a period of time too long to be considered a flash flood.

Flooding is caused in a variety of ways. Winter or spring rains, coupled with melting snows, can fill river basins too quickly. Torrential rains from decaying hurricanes or other tropical systems can also produce river flooding. The Mississippi River Flood of 1993 was caused by repeated heavy rain from thunderstorms over a period of weeks.

FLASH FLOODS are quick-rising floods usually occurring as the result of heavy rains over a short period of time, often only several hours or even less.

They can also be caused by ice jams on rivers in conjunction with a winter or spring thaw, or occasionally even a dam break. The constant influx of water finally causes a treacherous overflow to begin, powerful enough to sweep vehicles away, roll boulders into roadways, uproot trees, level buildings and drag bridges off their piers. Most frightening is the rapidity with which the water rises.

COASTAL FLOODING occurs when strong onshore winds push water from an ocean, bay or inlet onto land. This can take the form of storm surges associated with tropical storms and hurricanes, or can be associated with non-tropical storms such as "nor'easters."

FACTS ABOUT FLOODING

Flooding poses tremendous danger to both people and property. Since 1900, floods have taken more than 10,000 lives in the United States alone.

The Big Thompson Canyon (Colorado) Flood, which killed 140 people in 1967, proved a tragic illustration of a sobering statistic: 95% of those killed in a flash flood try to outrun the waters along their path rather than climbing rocks or going uphill to higher grounds.

Most people are unaware that:

66% of flood deaths occur in vehicles and most happen when drivers make a single, fatal mistake trying to navigate through flood waters.

Just 6 inches of rapidly moving flood water can knock a person down.

A mere 2 feet of water can float a large vehicle, even a bus.

One-third of flooded roads and bridges are so damaged by water that any vehicle trying to cross stands only a 50% chance of making it to the other side.

Beyond the risk of fatalities, floods devastate homes, towns and even entire regions. The great Mississippi River Flood of 1993 covered an area 500 miles long and 200 miles wide. More than 50,000 homes were damaged and 12,000 miles of farmland were washed out.





How will you be warned?

Four key alerts relate specifically to flood conditions:

FLOOD WATCH - High flow or overflow of water from a river is **possible** in the given time period. It can also apply to heavy runoff or drainage of water into low-lying areas. These watches are generally issued for flooding that is expected to occur at least 6 hours after heavy rains have ended.

FLOOD WARNING - Flooding conditions are **actually occurring or are imminent** in the warning area.

FLASH FLOOD WATCH - Flash flooding is **possible** in or close to the watch area. Flash Flood Watches are generally issued for flooding that is expected to occur within 6 hours after heavy rains have ended.

FLASH FLOOD WARNING - Flash flooding is **actually occurring or imminent** in the warning area. It can be issued as a result of torrential rain, a dam failure or ice jam.

The decisions you make now are critical!

SURVIVING A FLASH FLOOD

There may be not time for a warning to be issued. You may have only seconds to escape. It could be a life-and-death decision for you and your family.

If you suspect a flash flood is about to happen **immediately climb to higher ground.**

Remember, it does not have to be raining for a flash flood to occur. Some of the most dangerous floods originate many miles away.

SURVIVING A FLOOD

If on foot, do not attempt to walk through flood waters. Instead, turn around and go directly to higher ground. Make sure to keep children and pets away from flood waters, storm drains and sewers.

If you are in a car, drive away from flooded areas, never try to take a shortcut through them. If your car stalls, immediately abandon it and climb to higher ground.

If No Evacuation Has Been Ordered:

Collect your family emergency supplies kit plus extra blankets and sleeping bags and keep them with you.

Call your emergency contact person to report your plans.

Keep children and pets indoors.

Make sure you have cash and your car has a full tank of gas in case you must evacuate.

Make sure battery-powered radio is nearby.

If Evacuation is Advised:

Turn off all utilities (water & electricity).

Pack your family emergency supplies kit plus extra blankets and sleeping bags.

Lock the windows and doors of your home before leaving.

Tune your car radio to a news station to hear updates on evacuation routes.

Be sure to follow the recommended evacuation routes. Your favorite shortcuts may already be blocked by flood waters.

To create a Family Preparedness Plan, go to www.weather.com/ready/familyplan.html.

Source: www.weather.com

Be Red Cross Ready

Flood Safety Checklist

Floods are among the most frequent and costly natural disasters. Conditions that cause floods include heavy or steady rain for several hours or days that saturates the ground. Flash floods occur suddenly due to rapidly rising water along a stream or low-lying area.

Know the Difference

Flood/Flash Flood Watch—Flooding or flash flooding is possible in your area.

Flood/Flash Flood Warning—Flooding or flash flooding is already occurring or will occur soon in your area.

What should I do?



- Listen to area radio and television stations and a NOAA Weather Radio for possible flood warnings and reports of flooding in progress or other critical information from the National Weather Service (NWS).
- Be prepared to evacuate at a moment's notice.
- When a flood or flash flood warning is issued for your area, head for higher ground and stay there.
- Stay away from floodwaters. If you come upon a flowing stream where water is above your ankles, stop, turn around and go another way. Six inches of swiftly moving water can sweep you off of your feet.
- If you come upon a flooded road while driving, turn around and go another way. If you are caught on a flooded road and waters are rising rapidly around you, get out of the car quickly and move to higher ground. Most cars can be swept away by less than two feet of moving water.
- Keep children out of the water. They are curious and often lack judgment about running water or contaminated water.
- Be especially cautious at night when it is harder to recognize flood danger.
- Because standard homeowners insurance doesn't cover flooding, it's important to have protection from the floods associated with hurricanes, tropical storms, heavy rains and other conditions that impact the U.S. For more information on flood insurance, please visit the National Flood Insurance Program Web site at www.FloodSmart.gov.

What supplies do I need?



- Water—at least a 3-day supply; one gallon per person per day
- Food—at least a 3-day supply of non-perishable, easy-to-prepare food
- Flashlight
- Battery-powered or hand-crank radio (NOAA Weather Radio, if possible)
- Extra batteries
- First aid kit
- Medications (7-day supply) and medical items (hearing aids with extra batteries, glasses, contact lenses, syringes, cane)
- Multi-purpose tool
- Sanitation and personal hygiene items
- Copies of personal documents (medication list and pertinent medical information, deed/lease to home, birth certificates, insurance policies)
- Cell phone with chargers
- Family and emergency contact information
- Extra cash
- Emergency blanket
- Map(s) of the area
- Baby supplies (bottles, formula, baby food, diapers)
- Pet supplies (collar, leash, ID, food, carrier, bowl)
- Tools/supplies for securing your home
- Extra set of car keys and house keys
- Extra clothing, hat and sturdy shoes
- Rain gear
- Insect repellent and sunscreen
- Camera for photos of damage

What do I do after a flood?



- Return home only when officials have declared the area safe.
- Before entering your home, look outside for loose power lines, damaged gas lines, foundation cracks or other damage.
- Parts of your home may be collapsed or damaged. Approach entrances carefully. See if porch roofs and overhangs have all their supports.
- Watch out for wild animals, especially poisonous snakes that may have come into your home with the floodwater.
- If you smell natural or propane gas or hear a hissing noise, leave immediately and call the fire department.
- If power lines are down outside your home, do not step in puddles or standing water.
- Keep children and pets away from hazardous sites and floodwater.
- Materials such as cleaning products, paint, batteries, contaminated fuel and damaged fuel containers are hazardous. Check with local authorities for assistance with disposal to avoid risk.
- During cleanup, wear protective clothing, including rubber gloves and rubber boots.
- Make sure your food and water are safe. Discard items that have come in contact with floodwater, including canned goods, water bottles, plastic utensils and baby bottle nipples. When in doubt, throw it out!
- Do not use water that could be contaminated to wash dishes, brush teeth, prepare food, wash hands, make ice or make baby formula.
- Contact your local or state public health department for specific recommendations for boiling or treating water in your area after a disaster as water may be contaminated.

Let Your Family Know You're Safe

If your community experiences a flood, or any disaster, register on the American Red Cross Safe and Well Web site available through RedCross.org/SafeandWell to let your family and friends know about your welfare. If you don't have Internet access, call **1-866-GET-INFO** to register yourself and your family.



For more information on disaster and emergency preparedness, visit RedCross.org.