

Flooding

Flooding is the nation's most common natural disaster. Flooding can happen in every U.S. state and territory. However, all floods are not alike. Some can develop slowly during an extended period of rain, or in a warming trend following a heavy snow. Others, such as flash floods, can occur quickly, even without any visible signs of rain. It's important to be prepared for flooding no matter where you live, but particularly if you are in a low-lying area, near water or downstream from a dam. Even a very small stream or dry creek bed can overflow and create flooding.

Step 1: Get a Kit

Get an [Emergency Supply Kit](#), which includes items like non-perishable food, water, a battery-powered or hand-crank radio, extra flashlights and batteries. You may want to prepare a portable kit and keep it in your car. This kit should include:

- Copies of prescription medications and medical supplies;
- Bedding and clothing, including sleeping bags and pillows;
- Bottled water, a battery-operated radio and extra batteries, a first aid kit, a flashlight;
- Copies of important documents: driver's license, Social Security card, proof of residence, insurance policies, wills, deeds, birth and marriage certificates, tax records, etc.

Step 2: Make a Plan

Prepare your family

- Make a [Family Emergency Plan](#). Your family may not be together when disaster strikes, so it is important to know how you will contact one another, how you will get back together and what you will do in case of an emergency.
- Plan places where your family will meet, both within and outside of your immediate neighborhood.
- It may be easier to make a long-distance phone call than to call across town, so an out-of-town contact may be in a better position to communicate among separated family members.
- You may also want to inquire about emergency plans at places where your family spends time: work, daycare and school. If no plans exist, consider volunteering to help create one.
- Be sure to consider the specific needs of your family members
 - Notify caregivers and babysitters about your plan.
 - Make plans for your pets
- Take a Community Emergency Response Team (CERT) class from your local [Citizen Corps chapter](#). Keep your training current.

Step 3: Be Informed

Familiarize yourself with these terms to help identify a flood hazard

- **Flood Watch:** Flooding is possible. Tune in to NOAA Weather Radio, commercial radio, or television for information
- **Flash Flood Watch:** Flash flooding is possible. Be prepared to move to higher ground; listen to NOAA Weather Radio, commercial radio, or television for information.
- **Flood Warning:** Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.
- **Flash Flood Warning:** A flash flood is occurring; seek higher ground on foot immediately.

Understand Some of the Most Frequent Causes of Flooding:

Tropical Storms and Hurricanes: Hurricanes pack a triple punch: high winds, soaking rain, and flying debris. They can cause storm surges to coastal areas, as well as create heavy rainfall which in turn causes flooding hundreds of miles inland. While all coastal areas are at risk, certain cities are particularly vulnerable and could have losses similar to or even greater than those caused by the 2005 hurricane, Katrina, in New Orleans and Mississippi.

When hurricanes weaken into tropical storms, they generate rainfall and flooding that can be especially damaging since the rain collects in one place. In 2001, Tropical Storm Allison produced more than 30 inches of rainfall in Houston in just a few days, flooding over 70,000 houses and destroying 2,744 homes.

Spring Thaw: During the spring, frozen land prevents melting snow or rainfall from seeping into the ground. Each cubic foot of compacted snow contains gallons of water and once the snow melts, it can result in the overflow of streams, rivers, and lakes. Add spring storms to that and the result is often serious spring flooding.

Heavy Rains: Several areas of the country are at heightened risk for flooding due to heavy rains. The Northwest is at high risk due to La Niña conditions, which include: snow melts, heavy rains, and recent wildfires. And the Northeast is at high risk due to heavy rains produced from Nor'easters.

This excessive amount of rainfall can happen throughout the year, putting your property at risk.

West Coast Threats: The West Coast rainy season usually lasts from November to April, bringing heavy flooding and increased flood risks with it; however, flooding can happen at anytime.

A string of large wildfires have dramatically changed the landscape and ground conditions, causing fire-scorched land to become mudflows under heavy rain. Experts say that it might take years for vegetation to return, which will help stabilize these areas.

The West Coast also has thousands of miles of levees, which are meant to help protect homes and their land in case of a flood. However, levees can erode, weaken, or overtop when waters rise, often causing catastrophic results.

Levees & Dams: Levees are designed to protect against a certain level of flooding. However, levees can and do decay over time, making maintenance a serious challenge. Levees can also be overtopped, or even fail during large floods, creating more damage than if the levee wasn't even there. Because of the escalating flood risks in areas with levees, especially in the mid-west, FEMA strongly recommends flood insurance for all homeowners in these areas.

Flash Floods: Flash floods are the #1 weather-related killer in the U.S. since they can roll boulders, tear out trees, and destroy buildings and bridges. A flash flood is a rapid flooding of low-lying areas in less than six hours, which is caused by intense rainfall from a thunderstorm or several thunderstorms. Flash floods can also occur from the collapse of a man-made structure or ice dam.

New Development: Construction and development can change the natural drainage and create brand new flood risks. That's because new buildings, parking lots, and roads mean less land to absorb excess precipitation from heavy rains, hurricanes, and tropical storms.

Know Your Risks, Know Your Safety

- Find out if your home is at risk for flood and educate yourself on the impact a flood could have on you and your family. FEMA's Flood Insurance Study compiled statistical data on river flows, storm tides, hydrologic/hydraulic analyses, and rainfall and topographic surveys to create [flood hazard maps](#) that outline your community's different flood risk areas.
- Most homeowners insurance does not cover flood damage. Talk to your insurance provider about your policy and consider if you need additional coverage.
- The National Flood Insurance Program (NFIP) can help provide a means for property owners to financially protect themselves if additional coverage is required. The NFIP offers flood insurance to homeowners, renters, and business owners if their community participates in the NFIP. To find out more about the NFIP visit www.FloodSmart.gov.

Prepare Your Home

- Elevate the furnace, water heater and electric panel in your home if you live in an area that has a high flood risk.
- Consider installing "check valves" to prevent flood water from backing up into the drains of your home.
- If feasible, construct barriers to stop floodwater from entering the building and seal walls in basements with waterproofing compounds.
- Find out how to keep food safe during and after an emergency by visiting: <http://www.foodsafety.gov/keep/emergency/index.html>

Prepare Your Business

[Plan to stay in business](#), talk to your employees, and protect your investment.

- Carefully assess **how your company functions**, both internally and externally, to determine which staff, materials, procedures and equipment are absolutely necessary to keep the business operating.
- Identify **operations critical to survival** and recovery.
- Plan what you will do if your **building, plant or store is not accessible**.
 - Consider if you can run the business from a different location or from your home.
 - Develop relationships with other companies to use their facilities in case a disaster makes your location unusable.
- Learn about programs, services, and resources at [U.S. Small Business Administration](#).

Listen to Local Officials

Learn about the emergency plans that have been established in your area by your [state and local government](#). In any emergency, always listen to the instructions given by local emergency management officials.

Federal and National Resources

Find additional information on how to plan and prepare for floods, what to do during and after a flood and learn about available resources by visiting the following:

- [Federal Emergency Management Agency](#)
- [NOAA Watch](#)
- [American Red Cross](#)
- [U.S. Environmental Protection Agency](#)
- [U.S. Department of Health and Human Services, Center for Disease Control](#)
- [USA Freedom Corps Website](#)
- www.FloodSmart.gov