

# **Climate Action Toolkits**

## **Emergency Preparedness**



# **Flooding**



# Floods

Flooding is a consequence of a variety of factors. Floods can come from hurricanes, rainstorms, melting snow, coastal storms, storm surges or dam overflows. As climate change continues, they will continue to occur in frequency and severity. Floods are also the

Depending on the cause of the flooding, you may have other factors to deal with beyond its immediate effects. There are 5 types of floods:

## Coastal Floods

Coastal floods come from the ocean. As climate change continues, and temperatures rise, coastal floods will be part of sea level rise, threatening communities that live near the ocean. Coastal Flooding comes from storm surges, waves, excessive rainfall, hurricanes, and tsunamis.



## River Floods

River floods happen when water arises above riverbanks. River floods happen when there are heavy storms, or when snow pack melts quickly and the ground surrounding the river can not absorb the river flood quickly enough. River floods are extremely common and can vary in severity. As climate change continues, severe flooding will become more common.



# Floods

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There are 5 types of floods:

## Flash Flooding

Flash flooding happens within 6 hours of a heavy rainfall. It is the consequence of heavy rainstorms, thunderstorms, tropical storms, and hurricanes. Flash floods are quick and powerful, they can cause mudslides, damage infrastructure like bridges and roads, and be strong enough to move heavy objects like cars or boulders.



## Sewage Floods

Sewage floods happen when lots of water overwhelms sewage systems and causes sewage systems to leak and overflow. Overflow can happen into the streets, or into people's homes with excess sewage water being pushed into pipes that then cause sewage to come out through toilets, sinks and tubs.

## Groundwater Floods

Sewage floods happen when lots of water overwhelms sewage systems and causes sewage systems to leak and overflow. Overflow can happen into the streets, or into people's homes with excess sewage water being pushed into pipes that then cause sewage to come out through toilets, sinks and tubs.





# Compounding Issues

When floods arrive there are other issues folks need to be aware of as well.

## Mudslides

Excessive water sitting on top of the ground can trigger mudslides. Mudslides are when the ground has absorbed excess water and the rocks, debris, soil and dirt are loosened and begin moving with the water.



## Contaminated Water

Floods drag EVERYTHING with them. You should avoid entering flood water unless you absolutely have to. It is not uncommon for sewage to mix with flood water, which can cause a host of health issues that stay after the initial flood.



## Infrastructure Damage

Buildings and bridges can collapse especially if they have not been properly maintained over time. Avoid driving over bridges that have been flooded. Cars, trucks and SUVs can be swept away.



## Electrocution

If power was not turned off quickly enough water can be electrified!



# Quick Flood Facts

- Floods are the most common natural disaster in the world. This is because other natural disasters can cause flooding: Hurricanes, Earthquakes, Tropical rainstorms, and thunderstorms.
- SUVs and pickup trucks can be carried away by just 2 feet of flood water
- Nearly half of all flood related fatalities happen in cars. When floods happen it can be difficult to know just how deep the water is, and it is very common to misjudge how deep and fast water is moving.
- An adult can be knocked over by 6 inches/15 centimeters of fast moving flood water
- Flooding can bring water that is 20 feet/6 meters or higher.
- Excessive land development creates ideal conditions for floods. When the ground can't absorb the water flooding is more likely to happen and be more intense.



# Dangers of Flood Water

## Diseases

Flooding can expose you to diseases through exposure to contaminated water. It is common for people to experience respiratory diseases, and cutaneous infections (infections that come from being cut from sharp and dirty debris in flooding water.) Floods often have sewage or other chemicals in the water. Do not under any circumstances drink flood water.

## Physical Injury

If you are caught in a flood you can be seriously injured by debris such as large tree branches, outdoor furniture, cars, boulders or any large objects that are caught up in fast moving waters.

Being electrocuted is a risk both during and after a flood. Turn off the electricity in your home if a flood warning has been issued in your area.

## Being Trapped

People who do not leave their homes in a timely manner during floods get trapped in their homes. It is NOT safe to drive when floods have arrived.

Because floods can happen so quickly, not everyone always has the warning time or means necessary to leave.

## Driving

Driving through flood waters is one of the most dangerous things you can do. One foot of flood waters is enough to sweep away a small car and two feet of flood waters is enough to sweep away a SUV or Pick Up truck. Once a car is swept away it can not be controlled.

Driving through a flooded bridge should be avoided at all costs as you can quickly be pulled into much deeper water.

# How to Prepare For Flooding Ahead of Time

Download the Red Cross Emergency App to your phone so that you can be alerted if a flood is coming your way.



**Apple**

**Available in English and Spanish**



**Android**



Flood insurance is its own separate type of insurance. Home insurance does NOT automatically protect your home from floods.

Make sure that you take photographs of everything in your home and email them to yourself so that you can claim them for insurance later.

Look into flood barriers for your home. This may be floor barriers that slide under your doors. It may be an inflatable barrier that surrounds your home and prevents flood water from getting near your home. Sandbags can also help prevent water from coming into your home.



# Floods and Evacuation

- It is important to come up with evacuation plans ahead of time that allow you not drive on bridges, if you must drive on a bridge to evacuate during a flood, prepare to leave earlier.
- If you are unable to evacuate, get to the highest floor in your home. Avoid the attic as you can get trapped in it with no way out. Only get on your roof as a final resort.
- Never walk, swim or drive in flooding waters. Fast flood water is strong and can easily and quickly sweep you away.



- Always aim to go to higher elevation when evacuating.
- Be alert to the possibility of mudslides.
- Turn off the electricity in your home before you leave!