



# THUNDERSTORMS AND LIGHTNING



## WHAT IS A THUNDERSTORM?

A thunderstorm is formed by a combination of moisture, rapidly rising warm air, and a force capable of lifting the warm air. Typically these forces are warm or cold fronts, sea breeze, or air forced over mountains.

## WHAT IS LIGHTNING?

Lightning is an electrical discharge that results from the buildup of positive and negative charges within a thunderstorm. When the buildup becomes strong enough, lightning appears as a bolt. If you can hear thunder, you are close enough to the storm to be struck by lightning.

### THUNDERSTORM AND LIGHTNING FACTS

#### Thunderstorm Facts

- Thunderstorms may occur singularly, in clusters, or in lines.
- Thunderstorms are classified severe if they produce hail at least 3/4 of an inch in diameter, have winds of at least 58 miles per hour or higher, or if they produce a tornado.
- All thunderstorms contain lightning. The rapid heating and cooling of air near the lightning causes thunder.

#### Lightning Facts

- A bolt of lightning reaches a temperature approaching 50,000 degrees Fahrenheit in a split second.
- It is a myth that lightning never strikes twice in the same place. In fact, lightning will strike several times in the same place in the course of one discharge.
- Lightning kills 75-100 Americans each year and thousands more world-wide.

## KNOW THE TERMS

**Severe Thunderstorm Watch** - Severe thunderstorms are possible in and near the watch area. Stay informed and be ready to act if a severe thunderstorm warning is issued.

**Severe Thunderstorm Warning** - Severe weather has been reported by spotters or indicated by radar. Warnings indicate imminent danger to life and property.

## DANGER ZONES

- While thunderstorms and lightning can be found throughout the U.S., they are most likely to occur in the central and southern states.
- The state with the highest number of thunderstorms is Florida.

## WARNING AND DANGER SIGNS

- Look for darkening skies, flashes of light, the sound of thunder, or increasing wind.



## ACTIONS TO CONSIDER

### BEFORE

- Secure objects such as lawn furniture and take light objects inside.
- Survey around your home and remove dead or rotting trees and branches that could fall and cause injury and damage.
- Bring small outdoor pets inside and ensure livestock have secure shelter.

### DURING

- If Indoors**
- Do not handle any electrical equipment or corded telephones because lightning could follow the wire. Television sets are particularly dangerous at this time.
  - Avoid bathtubs, water faucets, and sinks because metal pipes can transmit electricity.
  - Turn off your air conditioner.
  - Draw blinds and shades over windows.

- If Outdoors**
- Find shelter immediately. Attempt to get into a building or vehicle. If no structure is available, get to an open space and squat low to the ground as quickly as possible.
  - If you are in the woods, find an area protected by a low clump of trees – never stand underneath a single large tree in the open.
  - Avoid tall structures such as towers, fences, telephone lines, or power lines.
  - Stay away from natural lightning rods such as golf clubs, tractors, fishing rods, bicycles, etc.

- If in a Vehicle**
- Pull safely onto the shoulder of the road away from any trees that could possibly fall on your vehicle, turn on your emergency flashers and stay in your vehicle.

### AFTER

- Call 911 (or equivalent) to report life-threatening emergencies only, not damage or power outages.
- Help your neighbors who may require special assistance – infants, elderly, and people with disabilities.
- Drive only as necessary. Debris and washed-out roads may make driving dangerous.
- Report property damage to your insurance agent immediately.

## DID YOU KNOW...

*On average, the United States gets 100,000 thunderstorms per year. Lightning kills more people each year than tornadoes or hurricanes.*



### What to Do if Someone is Struck By Lightning

People struck by lightning carry no electrical charge and can be handled safely. Have someone dial 911 (or equivalent) or your local EMS number. Look for burns where lightning entered and exited the body and provide first aid. If the strike caused the victim's heart and breathing to stop, provide CPR until medical professionals arrive and take over.

Contact your Installation Office of Emergency Management for further information.

