

TORNADOES:

WHAT IS A TORNADO?

- A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm (or sometimes as a result of a hurricane) and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly.

TORNADO FACTS:

- Tornado season is generally March through August, although tornadoes can occur at any time of the year.
- They may strike quickly, with little or no warning.
- Over 80% of all tornadoes strike between noon and midnight. They can last as little as one minute or over an hour.
- They may appear nearly transparent until dust and debris are picked up or a cloud forms in the funnel.
- Injuries or deaths most often occur as buildings collapse, when people are hit by debris, and as people try to escape the storm.
- According to the National Weather Service, about 42 people are killed because of tornadoes each year.
- When a tornado is over water, it is called a waterspout.
- Mobile homes are particularly vulnerable to damage during a tornado. A mobile home can overturn easily even if they are tied down. When a tornado watch is issued, take shelter in a building with a strong foundation.
- Tornadoes generally occur near the trailing edge of a thunderstorm. It is not uncommon to see clear, sunlit skies behind a tornado.

DANGER ZONES:

- Although all U.S. states are subject to tornadoes, Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Mississippi, Missouri, Nebraska, Oklahoma, South Dakota, and Texas are at the greatest risk.

KNOW YOUR TERMS:

- **TORNADO WATCH**- Issued when conditions are favorable for the formation of tornadoes.
- **TORNADO WARNING**- Issued when a tornado has been sighted or indicated by weather radar.

WARNING AND DANGER SIGNS:

- An approaching cloud of debris can mark the location of a tornado even if a funnel is not visible.
- Before a tornado hits, the wind may die down and the air may become very still.
- You may hear the sound of a loud roar, similar to a freight train, or see large hail.

ACTIONS TO CONSIDER BEFORE A TORNADO:

- Pick a place where family members could gather if a tornado is headed your way. It could be your basement or, if there is no basement, a center hallway, bathroom, or closet on the lowest floor.
- If you are in a high-rise building, you may not have enough time to go to the lowest floor. Find a place in a hallway near the center of the building.
- Above all, avoid exterior walls and windows.

ACTIONS TO CONSIDER DURING A TORNADO: IF AT HOME:

- Go at once to a windowless interior room, storm cellar, basement, or the lowest level of the building.
- Get under and hold on to a piece of sturdy furniture such as a workbench, heavy table, or desk.
- Use your arms to protect your head and neck.
- Get out and find shelter elsewhere if in a mobile home.

IF AT WORK:

- Go to the basement or to an inside hallway at the lowest level.
- Avoid places with wide-span roofs such as auditoriums, cafeterias, or large hallways.
- Get under a piece of sturdy furniture and use your arms to protect your head and neck.

IF OUTDOORS:

- Get inside a building or shelter if possible.
- If shelter is not available or there is no time to get indoors, lie in a ditch or low-lying area and use your arms to protect your head and neck.

IF IN A VEHICLE:

- Never try to out run a tornado in urban or congested areas, get out of the car immediately and take shelter in a nearby building.
- If there is no time to get indoors, get out of the car and lie in a ditch or low-lying area away from the vehicle. Be aware of the potential for flooding.

ACTIONS TO CONSIDER AFTER A TORNADO:

- Check for injuries and provide first aid and CPR if trained to do so.
- Watch out for broken glass, fallen power lines, and do not enter damaged areas until told it is safe to do so.
- Do not use candles or an open flame; combustibles may be present.
- Use caution when entering a damaged building.

THUNDERSTORMS AND LIGHTING:

WHAT IS A THUNDERSTORM?

- A thunderstorm is formed from a combination of moisture, rapidly rising warm air and a force capable of lifting air such as a warm or cold front, a sea breeze or a mountain.

THUNDERSTORM FACTS:

- Thunderstorms may occur singly, in clusters, or in lines.
- Thunderstorms are classified as severe if it produces hail at least $\frac{3}{4}$ of an inch in diameter, has winds of 58 miles per hour or higher, or produces a tornado.
- All thunderstorms contain lightning. The rapid heating and cooling of air near the lightning causes thunder.

WHAT IS LIGHTING?

- 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.

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.
- 75-100 Americans are hit and killed each year by lightning.

- Remember the 30/30 lightning safety rule: go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for at least 30 minutes after hearing the last clap of thunder.
- Rubber-soled shoes and rubber tires provide no protection from lightning. However, the steel frame of a hard-topped vehicle provides increased protection if you are not touching metal.

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.

KNOW THE TERMS:

- **SEVERE THUNDERSTORM WATCH** – Issued when conditions are favorable for the formation of severe thunderstorms.
- **SEVERE THUNDERSTORM WARNING** – Issued when a severe thunderstorm has been sighted or indicated by weather radar.

WARNING AND DANGER SIGNS:

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

ACTIONS TO CONSIDER BEFORE A THUNDERSTORM:

- Secure outdoor 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 or damage.

ACTIONS TO CONSIDER DURING A THUNDERSTORM: 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 air conditioner.
- Draw blinds and shades over windows.

IF OUTDOORS:

- If you are boating or swimming, get to land and find shelter immediately! Attempt to get into a building or car. If no structure is available, get to an open space and squat low to the ground as quickly as possible.
- If 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 you feel your hair stand on end (which may indicate that lightning is about to strike you), bend forward, putting your hands on your knees. A position with feet together and crouching while removing all metal objects is recommended. Do not lie flat on the ground.

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.

STRUCK BY LIGHTNING:

- People struck by lightning carry no electrical charge and can be handled safely. Have someone dial 9-1-1 or your local EMS number. If the victim is burned, provide first aid and call emergency medical assistance immediately. Look for burns where lightning entered and exited the body. If the strike caused the victim's heart and breathing to stop, provide CPR until medical professionals arrive and take over.

ACTIONS TO CONSIDER AFTER A THUNDERSTORM:

- Call 9-1-1 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.