Severe Weather and Evacuation Tips for Office and Home

Tornadoes are the most erratic, most unpredictable and most violent of storms. They can happen anytime...anywhere, but are most common in Wyoming from May through September.

The tornado funnel may range from a few yards to nearly a mile in width. It may travel slowly or as fast as 60 mph. It may skip along or even make a U-turn. It may move along the ground a few hundred feet or several hundred miles.

Tornado Watch: indicates that conditions are right for a tornado to develop and that the sky should be watched. Be alert to changing weather conditions.

Tornado Warning: indicates a tornado has been sighted or that radar indicates one has developed or could develop within minutes. Warnings will give the location of the tornado and the area immediately affected by the warning. When a warning is issued, move quickly to shelter.

Immediate Dangers: The immediate threat from tornadoes is danger to life and property from violently whirling winds and debris hurled through the air by the winds. Wind speeds in tornadoes can exceed 250 mph.

Long-Term Dangers: Long-term risks include the possibility of building collapse, fallen trees and power lines, broken gas lines, broken sewer and water mains, and the outbreak of fires. Agricultural crops and industries may be damaged or destroyed.

Thunder Storm Facts: Thunderstorms affect relatively small areas when compared with hurricanes and winter storms. The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. Nearly 1,800 thunderstorms are occurring at any moment around the world. That's 16 million a year!

Despite their small size, all thunderstorms are dangerous. Every thunderstorm produces lightning, which kills more people each year than tornadoes. Heavy rain from thunderstorms can lead to flash flooding. Strong winds, hail, and tornadoes are also dangers associated with some thunderstorms.

Of the estimated 100,000 thunderstorms that occur each year in the United States, only about 10 percent are classified as severe.

Your National Weather Service considers a thunderstorm severe if it produces hail at least 3/4-inch in diameter, wind 58 mph or higher, or tornadoes

Take the time NOW to understand these dangers and learn basic safety rules!
Lightning:
- Occurs with ALL thunderstorms.
- Averages 93 deaths and 300 injuries each year.
- Causes several hundred million dollars in damage to property and forests annually.

What is Lightning?
- The action of rising and descending air within a thunderstorm separates positive and negative charges. Water and ice particles also affect the distribution of electrical charge.
- Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas.
- The average flash could light a 100-watt light bulb for more than 3 months.
- Most lightning occurs within the cloud or between the cloud and ground.
- Your chances of being struck by lightning are estimated to be 1 in 600,000 but could be reduced by following safety rules.
- Most lightning deaths and injuries occur when people are caught outdoors.
- Most lightning casualties occur in the summer months and during the afternoon and early evening.
- The air near a lightning strike is heated to 50,000øF hotter than the surface of the sun! The rapid heating and cooling of air near the lightning channel causes a shock wave that results in thunder.
- Many fires in the western United States and Alaska are started by lightning. In the past decade, over 15,000 lightning-induced fires nationwide have resulted in several hundred million dollars a year in damage and the loss of 2 million acres of forest.

Every Thunderstorm Needs:
- Moisture - to form clouds and rain.
- Unstable Air - relatively warm air that can rise rapidly.
- Lift - fronts, sea breezes, and mountains are capable of

Develop a Plan:
- Pick two places to meet: A spot outside your home for an emergency and a place away from your neighborhood in case you can't return home.
- Choose an out-of-state friend as your "family check-in contact" for everyone to call if the family gets separated. Discuss what you would do if advised to evacuate.
- Discuss the types of disasters that are most likely to happen. Explain what to do in each case.
- Plan on how to take care of your pets and livestock
- Stock emergency supplies and assemble a Disaster Supplies Kit.
- Determine the best escape routes from your home. Find two ways out of each room.
- Working with neighbors can save lives and property. Meet with your neighbors to plan how the neighborhood could work together before, during and after a disaster until help arrives.

Straight-line Winds:
- Responsible for most thunderstorm wind damage. Winds can exceed 100mph!
- One type of straight-line wind, the down-burst, can cause damage equivalent to a strong tornado and can be extremely dangerous to aviation.
- During the summer in the western states, thunderstorms often produce little rain but very strong wind gusts and dust storms.
- lifting air to help form thunderstorms.