



Severe Weather and You

Tornadoes 101

A tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground. In an average year, 800 tornadoes are reported nationwide, resulting in 80 deaths and over 1500 injuries. Tornadoes can occur anywhere at any time of the year. *Know what to listen for...*

A **Tornado Watch** is issued when tornadoes are possible in your area. Remain alert for approaching storms.

A **Tornado Warning** is issued when a tornado has been sighted or indicated by weather radar. Move to your predesignated place of safety. Stay informed of weather conditions by tuning into local radio and television stations or by listening to NOAA Weather Radio for the latest tornado watches and warnings. Remember, tornadoes occasionally develop in areas in which a severe thunderstorm watch or warning is in effect, so listen for that information as well. Remain alert!

Know what to look for...

- Environmental Clues**
- ⚡ Dark, often greenish sky
 - ⚡ Wall cloud
 - ⚡ Large hail
 - ⚡ Loud roar, similar to a freight train

- ⚡ Some tornadoes appear as a visible funnel extending only partially to the ground.
- ⚡ Some tornadoes are clearly visible while other are obscured by rain or nearby low-hanging clouds.

Know what you can do...

Tornado Safety

Before the Storm

- ⚡ Develop a plan for you and your family for home, work, school, and when outdoors.
- ⚡ Have frequent drills.
- ⚡ Know the county in which you live, and keep a highway map nearby to follow storm movement from weather bulletins.
- ⚡ Listen to radio and television for information.
- ⚡ If planning a trip out doors, listen to the latest forecasts and take necessary action if threatening weather is possible.

Know who is most at risk:

- ⚡ People in automobiles
- ⚡ The elderly, very young and the physically or mentally impaired
- ⚡ People in manufactured (mobile) homes
- ⚡ People who may not understand the warning due to a language barrier

If a Warning is issued or if threatening weather approaches...

- ⚡ In a home or building, move to a pre-designated

shelter, such as a basement.

- ⚡ If an underground shelter is not available, move to an interior room or hall way on the lowest floor and get under a sturdy piece of furniture.
- ⚡ Stay away from windows.
- ⚡ Get out of automobiles.
- ⚡ Do not try to outrun a tornado in your car; instead, leave your car immediately.
- ⚡ If caught outside or in a vehicle, lie flat in a nearby ditch or depression.
- ⚡ Manufactured (mobile) homes, even if tied down, offer little protection from tornadoes and should be abandoned.

Each year, many people are killed or seriously injured by tornadoes despite advance warning. Some did not hear the warning while others received the warning but did not believe a tornado would actually affect them. After you have received the warning or observed threatening skies, **YOU** must make the decision to seek shelter before the storm arrives. ***It could be the most important decision you will ever make.***

**MARK TRAIL CHAMPIONS
NOAA WEATHER RADIO-**
THE VOICE OF THE NATIONAL WEATHER SERVICE

NOAA WEATHER RADIOS SHOULD BE AS COMMON IN HOMES AND PUBLIC PLACES AS SMOKE DETECTORS!

NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information, warnings, watches, forecasts and other hazard information 24 hours a day.

Flash Flood Safety Tips...

- NEVER drive into a flooded area.
- NEVER drive around road barricades.
- NEVER assume the water isn't deep. Looks can be deceiving. How many times have television crews captured dramatic footage of rescue workers plucking victims out of flooded water downstream from low water crossings. While the water may only look two feet deep, it might be closer to five or six feet deep.

Missouri Emergency Preparedness Association

Missouri Emergency Preparedness Association
PO Box 73
Camdenton, MO 65020
E-Mail: mepa@momepa.org

WE'RE ON THE WEB!
WWW.MOMEPA.ORG

The Missouri Emergency Preparedness Association is the Professional Association for Emergency Management in the State of Missouri. We are supported in our mission by agencies such as the Federal Emergency Management Agency (FEMA), the State Emergency Management Agency (SEMA) and Local Emergency Management Agencies. We are committed to making Missouri a safe place to live.



Some information provided in this handout courtesy of:

National Oceanic & Atmospheric Administration

American Red Cross

Federal Emergency Management Agency

State Emergency Management Agency

Learning From The Past, Planning For The Future

Lightening... Nature's Fireworks

Lightning occurs with all thunderstorms. It averages 93 deaths and 300 injuries each year. It also causes several hundred million dollars in damage to property and forests annually. You should be aware of the dangers of lightning and how to protect yourself and your family from becoming victims. Here are some helpful facts



Lightening is one of the prettier features of a storm, but also one of the most deadly. Stay inside when storms are in the area.

about nature's fireworks...

What is lightning?

Lightning occurs when the action of rising and descending air within a thunderstorm separates positive and negative charges. Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas.

The average flash of lightning could light a 100-watt light bulb for more than three months. Most lightning occurs within the cloud or between the cloud and ground.

The air near a lightning strike is heated to 50,000 degrees - *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**.

To estimate the distance in miles between you and the lightning flash, count the seconds between the lightning and the thunder and divide by five.

Most lightning deaths and injuries occur when people are caught outdoors. Most casualties occur in the summer months and during the afternoon and early evening.

Your chances of being struck by lightning are estimated to be 1 in 600,000.

In recent years, people have been killed by lightning while boating, swimming, golfing, bike riding, standing under a tree, riding on a lawnmower, talking on the telephone, loading a truck,

playing soccer, fishing in a boat, and mountain climbing.

Lightning Myths and Facts...

MYTH: If it is not raining, then there is no danger from lightning.

FACT: Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall.

MYTH: "Heat lightning" occurs after very hot summer days and poses no threat.

FACT: What is referred to as "heat lightning" is actually lightning from a thunderstorm too far away for thunder to be heard. However, the storm may be moving in your direction!