



MAFES Dawg Tracks

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Thunderstorm and Lightning Safety



Thunderstorms and lightning have become more or less common place in our area for the past couple of years. We never want to see them, but obviously it's not our choice. With this in mind, we had better get prepared to meet the thunderstorms, lightning, straight line winds and floods because it is highly probable that we will have at least one of these and maybe more than one.

How far away is a thunderstorm?

- Count the number of seconds between a flash of lightning and the next clap of thunder.
- Divide this number by 5 to determine the distance to the lightning in miles.

How is lightning formed?

- Lightning is the result of a buildup and discharge of electrical energy between positively and negatively charged areas. Rising and descending air within a thunderstorm separates these positive and negative charges. Water and ice particles can also affect the charge distribution.
- A cloud to ground lightning strike begins as an invisible channel of electrically charged air moving from the cloud to the ground. When one channel nears an object on the ground, a powerful surge of electricity from the ground moves upward to the clouds and produces the visible lightning strike.

Interesting lightning Trivia Facts-

- Lightning causes an average of 80 fatalities and 300 injuries each year.
- Lightning occurs in all thunderstorms: each year lightning strikes the Earth 20 million times.
- The energy in one lightning flash can light a 100-watt light bulb for three months.
- Most lightning fatalities and injuries occur when folks are caught outside in the summer months in the afternoon and evening.
- Lightning can occur from cloud to cloud, cloud to air, and cloud to ground.
- Many fires in the western United States and Alaska are started by lightning.
- The air near a lightning strike is heated to 50,000 degrees F. (**hotter than the surface of the sun**). The rapid heating and cooling of the air near the lightning channel causes a shock wave that results in thunder.

- ✓ Develop a **family emergency plan** with the supplies needed - such as staple goods, snacks, water (1-gallon per day, per person), copies of pertinent papers, plans for a family meeting point after a weather incident, etc.

- ✓ **Watch for developing thunderstorms** – Keep your radios and televisions tuned to local stations or area stations to stay abreast of the developing weather trends.
- ✓ Lightning can strike from as far away as 10 miles from the area where it is raining. You can hear thunder from that distance. **Remember—if you can hear thunder, you are in striking distance—seek safe shelter immediately.** A safe shelter is any enclosed building with plumbing and electrical service that will direct the charge to the ground. An enclosed vehicle (windows closed and rubber tires) is also safe. Avoid open air structures and tall trees. Stay away from open water.
- ✓ **Use the 30-30 Rule** - When you see lightning, count the seconds until you hear thunder. If that time is **30 seconds or less**, the storm is within six miles and is dangerous. Seek shelter immediately! Wait at least 30 minutes after you hear the last clap of thunder before you leave the shelter. Don't be fooled by the sunshine or blue sky.
- ✓ **Outdoors** – When you hear the first roar of thunder, stop all outside activities, work or sports to give all the folks sufficient time to get inside of a large building or enclosed vehicle. **Follow the 30-30 Rule.**
- ✓ **Indoors** – Refrain from using cord phones, computers and other electrical equipment that puts you in direct contact with electricity. Unplug sensitive equipment and stay away from plumbing fixtures and running water. A good and inexpensive investment in advance of thunderstorm activity is to replace as many electrical outlets with Ground Fault Circuit Interrupters (GFCIs) as possible and especially in wet and moisture laden areas.
- ✓ **Helping Lightning Victims** – Call 9-1-1 and start CPR, if necessary! Cardiac arrest and heart irregularities, burns, and nerve damage are common injuries. With proper treatment for these injuries, the victim will normally survive. I heard of an “old wives tale” that helping a lightning victim might affect the helper. This isn't true; the charge won't affect the helper.

If you respect lightning and thunderstorms and practice the 30-30-rule, you can enhance the safety for yourself and others around you. As we mentioned above, when the weather favors thunderstorm conditions, stay tuned to your radio and/or TV station to stay abreast of coming possibilities of serious inclement conditions.

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Excerpts: www.ehs.ok.state.edu / American Red Cross / NOAA