

Toolbox Talks

Lightning Safety Tips for Indoors and Out



Lightning kills more people than any other kind of weather event, including hurricanes and tornadoes. It's estimated that Earth experiences approximately 100 lightning strikes per second, or 8,640,000 times a day. In the United States, lightning kills approximately 100 people and injures about 1,000 people each year.

Protect Yourself Against Lightning

1. **Plan Ahead.** When planning outside activities and work schedules, listen for latest weather forecasts. (NOAA Weather Radio, local advisories, National Weather Services.).
2. **Watch for Severe Weather.** Keep an eye on the sky. Dark, heavy clouds in the afternoon of a warm spring or summer day can signal an approaching thunderstorm. Take precautions even if the thunderstorm is not directly overhead. Lightning may strike as much as 10 miles away from the rain area in a thunderstorm. If you see lightning or hear thunder you should take shelter immediately.
3. **Know the 30 / 30 Rule.** When you see lightning count the time until you hear thunder. For every five seconds you count, the lightning is one mile away. If it is 30 seconds or less, then seek shelter! The lightning is close. Wait 30 minutes or more after the last observed lightning flash before leaving shelter.
4. If caught in a field far from shelter and lightning is close. **Adopt Lightning Safety Position (LSP).**
 - Crouch down with feet together, head bowed between your knees, hands placed on your ears to reduce acoustic shock and bend forward. Never lie flat.
 - Take off all metal objects.
 - Stay away from others.
5. **Avoid Unsafe Buildings.** Partially open structures such as picnic shelters, dugouts offer little protection against lightning.

6. **Seek Shelter in a Safe Location.**

The best protection is a fully enclosed building that is substantially constructed (wired/plumbing). However, lightning can enter a building by a direct strike, through wires or pipes that extend outside the structure, or through the ground.

Stay away from:

- Telephones and computers.
- Electrical appliances, TVs, heavy equipment.
- Draw blinds and shades over windows. Never watch the lightning from the windows.
- Avoid contact with concrete walls in garages.
- Always stay away from any water sources. (ex. Water tanks, showers, sinks)

The second safest location is an enclosed metal vehicle, car, truck, etc., not a topless or soft-top vehicle.

- Ensure all doors are closed and windows are rolled up.
- Do not touch any metal surfaces.



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If You are Caught Outdoors and Shelter is Not Close:

- Keep a safe distance from tall objects, such as trees, telephone poles, bleachers, recreation area towers, isolated trees, and light poles.
- Avoid projecting above the surrounding landscape. Seek shelter in low-lying areas such as valleys, ditches, and depressions. Be aware of flooding.
- Stay away from objects that conduct electricity, such as tractors, golf carts, metal fences, and lawnmowers.
- If you are in a group in the open, spread out, keeping people yards apart.
- Avoid leaning against vehicles. Get off equipment such as mowers.

7. If You're Driving During a Lightning Storm

- Pull off the roadway. A lightning flash could startle you and cause temporary blindness, especially at night.
- Do not use electronic devices such as cell phones or radios. Lightning striking the vehicle, especially the antennae, could cause serious injury. Police officers, firefighters, security officers should use extreme caution.

8. In Case of an Accident

If someone is struck by lightning, call 911 or your local Emergency Medical Services (EMS) number at once.

- If you know first aid, help – every minute counts.
- If breathing has stopped, begin rescue breathing.
- If the heart has stopped beating, a trained person should give CPR.
- Check for burns – where the electricity entered and left their body.

Lightning Trivia

1. “Rubber tires keep you safe in a car because they do not conduct electricity.” NO! In strong electric fields, rubber tires actually become more conductive than insulating. The metal, being a good conductor, would direct the current around the surface of the vehicle and discharge it safely to the ground.
2. “The tallest objects in a storm are more likely to get struck by lightning.” True, taller objects are closer to the clouds, but lightning can strike the ground at a close distance to a tall object. Taller objects may have a higher possibility of a strike, but where lightning is concerned, the strike path is not predictable.
3. Surge protectors will save your electronics (tv, vcr, etc) if lightning strikes your power line. False! Surge protectors provide protection for power surges in the line from the power company, but not for lightning. To really guard against strike damage, you need a lightning arrester. The arrester uses a gas filled gap that acts as an open circuit to low potentials, but becomes ionized and conducts at very high potentials. If the lightning hits the line you are protecting, the gas gap will conduct the current safely to the ground.

