Lightning Safety at Work and Home Meeting Kit



INTRODUCTION

Lightning is a serious hazard both on and off the job. There is an average of 25 million lightning strikes that occur in the United States each year alone. Individuals need to identify and plan for the potential of lightning before beginning a work activity or any leisure activity during storm season. Have a plan of when you will cease work and where you will go if lightning occurs during that day. The best practice to avoid getting struck by lightning is to take shelter indoors before a storm is in your immediate area.

RISKS OF LIGHTNING STRIKES

Although the odds of being struck by lightning in a given year are less than 1 in a million, some factors can put you at greater risk. Lightning most often strikes people who work outside or engage in outdoor recreational activities. Regional and seasonal differences can also affect your risk of being injured by lightning.

THE FOLLOWING OCCUPATIONS HAVE THE HIGHEST RISK TO LIGHTNING STRIKES

- Construction and building maintenance
- Farming and field labor
- Logging
- Explosives handling or storage
- Heavy equipment operation
- Pipefitting or plumbing
- Telecommunications field repair
- Power utility field repair

TAKE PRECAUTIONS WHEN YOU SEE LIGHTENING

- If the weather forecast calls for thunderstorms, postpone your trip or activity.
- Remember: When thunder roars, go indoors. Find a safe, enclosed shelter.
- Don’t forget the 30-30 rule. After you see lightning, start counting to 30. If you hear thunder before you reach 30, go indoors. Suspend activities for

at least 30 minutes after the last clap of thunder.
- If no shelter is available, crouch low, with as little of your body touching the ground as possible. Lightning causes electric currents along the top of the ground that can be deadly over 100 feet away.
- Stay away from concrete floors or walls. Lightning can travel through any metal wires or bars in concrete walls or flooring. Although you should move into a non-concrete structure if possible, being indoors does not automatically protect you from lightning. In fact, about one-third of lightning-strike injuries occur indoors.

OUTDOOR SAFETY TIPS

- **Be aware:** Check the weather forecast before participating in outdoor activities. If the forecast calls for thunderstorms, postpone your trip or activity, or make sure adequate safe shelter is readily available.
- **Go indoors:** Remember the phrase, “When thunder roars, go indoors.” Find a safe, enclosed shelter when you hear thunder. Safe shelters include homes, offices, shopping centers, and hard-top vehicles with the windows rolled up.
- **Seek shelter immediately even if caught out in the open:** If you are caught in an open area, act quickly to find adequate shelter. The most important action is to remove yourself from danger. Crouching or getting low to the ground can reduce your chances of being struck, but does not remove you from danger.

If you are caught outside with no safe shelter nearby, the following actions reduce your risk:

- Immediately get off elevated areas such as hills, mountain ridges, or peaks.
- Never lie flat on the ground. Crouch down in a ball-like position with your head tucked and hands over your ears so that you are down low with minimal contact with the ground.
- Never shelter under an isolated tree.
- Never use a cliff or rocky overhang for shelter.
- Immediately get out of and away from ponds, lakes, and other bodies of water.
- Stay away from objects that conduct electricity (barbed wire fences, power lines, windmills, etc.).
- **Separate** If you are in a group during a thunderstorm, separate from each other. This will reduce the number of injuries if lightning strikes the ground.

DO NOT

Don’t stay in open vehicles, structures, and spaces: During a thunderstorm, avoid open vehicles such as convertibles, motorcycles, and golf carts. Be sure to avoid open structures such as porches, gazebos, baseball dugouts, and sports arenas. And stay away from open spaces such as golf courses, parks, playgrounds, ponds, lakes, swimming pools, and beaches.

Don’t stay near tall structures: Do NOT lie on concrete floors during a thunderstorm. Also, avoid leaning on concrete walls. Lightning can travel through any metal wires or bars in concrete walls or flooring.

INDOOR SAFETY TIPS

Even though your home is a safe shelter during a lightning storm, you may still be at risk. About one-third of lightning-strike injuries occur indoors. Here are some tips to keep safe.

- **Avoid water:** Do NOT bathe, shower, wash dishes, or have any other contact with water during a thunderstorm because lightning can travel through a building’s plumbing.
- **Avoid electronic equipment:** Do NOT use your computers, laptops, game systems, washers, dryers, stoves, or anything connected to an electrical outlet. Lightning can travel through electrical systems, radio and television reception systems, and any metal wires or bars in concrete walls or flooring. Equip your home with whole-house surge protectors to protect your appliances.
- **Avoid corded phones:** Corded phones are NOT safe to use during a thunderstorm. Do NOT use them. However, it is safe to use cordless or cellular phones during a storm.
- **Avoid windows, doors, porches, and concrete:** Do NOT lie on concrete floors during a thunderstorm. Also, avoid leaning on concrete walls. Lightning can travel through any metal wires or bars in concrete walls or flooring.

FINAL WORD

Precautions should be taken to prevent worker exposure to lightning. Employers should recognize lightning as an occupational hazard. Supervisors and workers at outdoor worksites should take lightning safety seriously.