

Safety in Lightning Storms

On average, more people are killed by lightning than any other weather event. Many people incur injuries or are killed due to misinformation and unsafe behavior during thunderstorms.



Generally speaking, if an individual can see lightning and/or hear thunder he/she is already at risk. Lightning can travel from cloud to earth at a speed of 90,000 miles per second and create temperatures that exceed 50,000 degrees Fahrenheit - three times hotter than the sun's surface. There are some 20,000 thunderstorms globally at any one time producing around 100 lightning strikes to earth per second. There are from 15 to 20 million strikes per year in the US alone. Florida has the most strikes, but Michigan ranks among the top ten states in number of lightning casualties. Although, nine out of ten people struck by lightning survive the incident, nearly 25 percent of survivors suffer long term psychological or physiological trauma.

High winds, rainfall, and cloud cover often act as precursors to actual cloud-to-ground strikes notifying individuals to take action. Many casualties occur as a storm approaches, when people ignore these precursors. Just as many occur after the perceived threat has passed. That's because threat of lightning can persist more than 30 minutes following a storm. Although lightning is always generated and connected to a thundercloud, it may strike many miles from the edge of the thunderstorm cell.

No place is absolutely safe from lightning threat given the seemingly random nature of thunderstorms. However, some places are safer than others. The following are lightning safety tips to use as guidelines:

Large, enclosed, substantially constructed buildings tend to be safer than smaller or open structures. The risk for lightning injury depends on whether the structure incorporates lightning protection, the type of construction materials used and the size of the structure. Small open shelters common on golf courses, athletic fields, parks and picnic areas are generally built to protect against rain and sun, but do not have lightning protection systems.

During a lightning storm, avoid using the phone and remove headsets. Don't take a bath or shower. Avoid washing dishes or hands. Turnoff, unplug and stay away from appliances, computers, power tools and TV sets. Stay away from the fireplace or any large metal objects. Avoid contact with conductive surfaces with exposure to the outside such as metal doors or window frames, electrical wiring, telephone wiring, cable TV wiring, plumbing, etc.

In general, fully enclosed metal vehicles such as cars, trucks, buses, vans, fully enclosed farm vehicles, etc. with the windows rolled up, provide good shelter from lightning. It's not the tires that protect you, but the car's metal frame, which conducts the lightning's electricity to the ground. Avoid touching any metal components inside the vehicle. If you must get out, jump out without touching the vehicle and the ground at the same time. Take short hops away from the vehicle with both feet together.

If you are away from a building or vehicle, you can take steps to reduce the likelihood of you becoming a target for a lightning strike. Get rid of objects that conduct electricity, including metal tools, jewelry, metal-framed glasses and hearing aids.

If caught on a golf course, leave your clubs and quickly take off your golf shoes, which have steel that may attract lightning. If you are with others spread out and remain several yards apart to avoid electricity transfers.

Avoid being in or near high places and open fields, isolated trees, unprotected gazebos, umbrellas, canopies, rain or picnic shelters, baseball dugouts, communication towers, flagpoles, wood or metal bleachers, metal fences, convertibles, golf carts and water (ocean, lakes, swimming pools, rivers, etc.).

Avoid going underneath trees. Avoid metal fences, gates and tall light poles and power poles.

Swimmers and fishermen should get out and away from water as soon as possible. Drop fishing poles and tackle boxes and head for the lowest place in the area.

Avoid open spaces. Seek clumps of shrubs or trees of uniform height. Seek a ditch or other low place. Crouch down and put your feet together or lie down in a curled up position. Place your hands over your ears to minimize hearing damage.

A person struck by lightning carries no electrical charge and can be touched safely. First call 911, then administer CPR if there is no breathing or pulse reading. Often, quick CPR can mean the difference between life and death.