

# Thunderstorms & Lightning

It doesn't have to be raining for lightning to strike. Almost all lightning will occur within 10 miles of its parent thunderstorm, but it CAN strike much farther than that. Lightning detection equipment has confirmed bolts striking almost 50 miles away, but these are very rare.

Thunderstorms can produce several types of hazardous weather including large hail, damaging winds, flash floods, and tornados. However, lightning is the number one cause of weather related fatalities in Florida, averaging 10 fatalities and 40 injuries a year.

Approximately half of the deaths and injuries occur during outdoor recreational activities, about 40% of those occur on the water.

## ***Where to Go***

The safest location during a thunderstorm is inside a large enclosed structure with plumbing and electrical wiring. These include shopping centers, schools, office buildings, and private residences. If lightning strikes the building, the plumbing and wiring will conduct the electricity more efficiently than a human body. If no buildings are available, then an enclosed metal vehicle such as an automobile, van, or school bus makes a decent alternative.

## ***Where NOT to Go***

Not all types of buildings or vehicles are safe during thunderstorms. Buildings are NOT SAFE (even if they are "grounded") if they have exposed openings. These include beach shacks, metal sheds, picnic shelters/pavilions, carports, and baseball dugouts. Porches are dangerous as well. Convertible vehicles offer no safety from lightning, even if the top is "up". Other vehicles which are NOT SAFE during lightning storms are those which have open cabs, such as golf carts, tractors, and construction equipment.

Remember, it is not the rubber tires of a vehicle that protect you from lightning. The metal shell of a vehicle gives the electricity from the lightning a path to flow around you.

### ***What to Do***

Once inside a sturdy building, stay away from electrical appliances and plumbing fixtures. You may want to unplug valuable electrical equipment so they will not be damaged. As an added safety measure, go to an interior room. If you are inside a vehicle, roll the windows up, and avoid contact with any conducting paths leading to the outside of the vehicle such as radios, CB's, and the ignition or you could be badly burned if lightning strikes.

### ***What NOT to Do***

Lightning can travel great distances through power lines, especially in rural areas. Do not use electrical appliances, including corded telephones and desktop computers unless it is an emergency. Cordless phones, cell phones, laptop and tablet computers are safe to use. Stay away from the windows and do not take a shower or use the bathtub.

### **What should I do if I am in a boat on the open water during a thunderstorm?**

Thunderstorms over the coastal waters in Florida are generally unpredictable. Even with the best weather reports, boaters can still be caught in open waters when a thunderstorm develops. With or without a lightning protection system, it is critical to take additional precautions to protect yourself.

- Stay in the center of the cabin, if so designed. If there is no cabin, stay low in the boat. Don't be a stand-up lightning rod!
- Keep arms and legs in the boat. Don't dangle them over the side.
- Stop fishing, water skiing, scuba diving, swimming or other water activities when there is lightning or even when weather conditions look threatening.
- Lightning can strike well ahead of a storm.
- Disconnect and do not use or touch the major electronic equipment, including the radio, throughout the duration of the storm.
- Lower, remove or tie down the radio antenna and other protruding lightning protection system.

- To the degree possible, avoid making contact with two components connected to the system at the same time. For example, the gear levers and the spotlight may both be connected to the system. If you have a hand on both when lightning strikes, the path of the electric current could be directly through your heart—a very deadly path!
- At least one person on board should be competent in CPR and First Aid. Many individuals struck by lightning can be saved with prompt First Aid.