

## LIGHTNING AND BOATING

If you are in a small boat and close to shore when a thunderstorm approaches, get in and off the water immediately.

When lightning strikes, it will most often strike the highest object in the immediate area. On a body of water, that highest object is a boat. Once it strikes the boat, the electrical charge is going to take the most direct route to the water where the electrical charge will dissipate in all directions.

Do not become a lightning target. Preferably stay off the water whenever weather conditions are threatening. Check the weather conditions before you go out.



There is no such thing as lightning-proof boats, only lightning-protected boats. All-metal ships are rarely damaged, and injuries or deaths are uncommon. These ships are frequently struck, but the high conductivity of the large quantities of metal in direct contact with the water, causes rapid dissipation of the electrical charge. But small boats are seldom made of metal. Their fiberglass construction does not provide the automatic grounding protection offered by metal-hulled craft. Therefore, when lightning strikes a small boat, the electrical current is searching any route to ground and the human body is an excellent conductor of electricity!

In many cases, the small boat operator or casual weekend sailor is not aware of this vulnerability to the hazards of lightning. These boats can be protected from lightning strikes by properly designed and connected systems of lightning protection. However, the majority of these boats are not so equipped.



The vast majority of lightning injuries and deaths on boats occur on small boats with NO cabin. Boats with cabins are safer, particularly if they've been fitted with lightning protection, but one should avoid using the radio in a storm unless there's an emergency.

### FIRST AID

**First call 911** - It is a myth that lightning victims are electrified and should not be touched. First aid, such as CPR or mouth-to-mouth resuscitation, should be administered to strike victims as soon as possible. All deaths from lightning are from cardiac arrest and stopped breathing at the time of the strike.

If you are still in an active thunderstorm and at continuing risk to yourself, consider moving the victim and yourself to a safer location.



Hazard Management Cayman Islands  
*Preparing for All Hazards*

## Lightning



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## THE LIGHTNING THREAT

Lightning has been known to come into homes via the telephone line or the pipes in the plumbing. Deaths have occurred to persons on the phone or in the bathtub. It can strike persons lying on the beach, in the shower, in parking lots or in boats. When lightning is around, no place seems totally safe. According to the National Oceanic and Atmospheric Administration and the National Weather Service, over the past 30 years lightning has killed more people in the U.S. than tornados or hurricanes. But the real story of lightning isn't the deaths, it's the injuries. Only about 10% of those struck are killed; 90% survive. But of the survivors, many suffer life-long severe injury and disability. These injuries are primarily neurological, with a wide range of symptoms.



## THE SOLUTION

The vast majority of lightning casualties can be easily, quickly, and cheaply avoided. People need increased awareness of the lightning hazard and knowledge of lightning safety. Lightning safety involves several easy steps that anyone can do. While lightning safety can be inconvenient, consider how inconvenient the alternative of not following these simple rules could be!

## LIGHTNING SAFETY TIPS

The following lightning safety guidelines can greatly reduce the risk of injury or death. The individual is ultimately responsible for his/her personal safety and has the right to take appropriate action when threatened by lightning. Adults must take responsibility for the safety of children in their care during thunderstorm activity.

When you first see lightning or hear thunder, activate your emergency plan. Now is the time to go to a building or a vehicle. Lightning often precedes rain, so don't wait for the rain to begin before suspending activities. If outdoors avoid water. Avoid high ground. Avoid open spaces. Avoid all metal objects including electric wires, fences, machinery, motors, power tools, etc. Unsafe places include underneath canopies, small picnic or rain shelters, or near trees, flag poles, communication towers or light poles.

'The Lightning Crouch:' Use this only as a last, desperate measure!! If lightning is imminent, it will sometimes give a very few seconds of warning. Sometimes your hair will stand-up on end, or your skin will tingle, or light metal objects will vibrate. If this happens and you're in a group, spread out so there are several body lengths between each person. If one person is struck, the others may not be hit and can give first aid. Once you've spread out, use the lightning crouch; put your feet together, squat down, tuck your head, and cover your ears. When the immediate threat of lightning has passed, continue heading to the safest spot possible.

## SAFER LOCATIONS DURING THUNDERSTORMS

Where possible, find shelter in a substantial building or in a fully enclosed metal vehicle such as a car, truck or a van with the windows completely shut.

When inside a building **AVOID:**

Use of the telephone, taking a shower, washing your hands, doing dishes, or any contact with conductive surfaces with exposure to the outside such as metal door or window frames, electrical wiring, telephone wiring, cable TV wiring, plumbing, etc. Don't use a hair drier in a lightning storm – a power surge from the lightning could come through the cord and electrocute you.

After seeing lightning, if you can't count to 30 before hearing thunder then you should take cover. If you start to see a lot of lightning then run. Don't ride bikes home – you could get electrocuted from the metal. Don't go under a tree to keep dry in a thunderstorm!

## SWIMMING POOLS

The water in swimming pools does not actually attract lightning strikes, but it does conduct the electricity extremely well if the pool is hit. The electricity of lightning strikes can cause permanent injury and is potentially deadly. Swimming pools should be vacated whenever there is a threat of lightning.