

LIGHTNING SAFETY ISSUES IN RECREATION
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Worldwide right now there are about 2,000 thunderstorms producing some 100 lightning strikes to earth per second.

Lightning is a part of the global climatic circuit which brings life-nourishing water, nitrogen and electrical continuity to help maintain a balanced environment. Lightning's behavior, however, is not fully understood by science. Lightning is a capricious, random, and unpredictable event. It is impossible to prevent lightning. Maybe, in an absolute sense, complete lightning protection is unobtainable.

In military terms, we might characterize the battle scenario as:

1. We do not understand our adversary or his tactics.
2. We do not know when, where, how, or if he will strike.
3. We know he will strike sometime, and when he does he will cause us damage, deaths, and/or injuries.

For the recreation business in general, let me share some observations about lightning safety:

1. Lightning has visited almost all outdoor sports in most states – golf, football, baseball, tennis, soccer, swimming, lacrosse, track and field, (even skiing) and so on – doing damage and causing personal injuries and deaths.
2. Of lightning strike victims, the survival rate is high...about 80%. But of the survivors, some 25% suffer long term physiological or psychological after effects. Cataracts, hearing loss, photophobia, dizziness, impotence, muscle spasms, un-controlled projectile vomiting...these are but a few of the after-effects or symptoms from lightning experienced by survivors.
3. Lightning lawsuits have confused the recreation industry about a clear and decisive course of action regarding lightning safety. “Do Something?” or “Do Nothing?” – What should we do? What can we do? What shouldn't we do? The questions remain unanswered.
4. A generalized lightning safety environment requires cooperation and education of all people – players, spectators, employees, and owners and managers. Consider that even the Weatherman – with all the tools available to him – never gets the weather right 100% of the time. It is not realistic, I propose, to expect non-professional weather observers to make correct calls every time.

5. Dealing with lightning safety is a risk management problem, with vital tools being:
- a. Learning about the lightning threat in advance. Weather information tools such as Weather Channel TV, or a NOAA-NWS weather radio, or a contract weather service or a dedicated lightning detector might be useful. Remember, however, that no weather warning devices will detect all of the lightning all of the time...the technology just isn't here yet to be that precise. So, our instincts and our common sense will continue to play a large part in decision-making about adverse weather.
 - b. It is essential to inform all people – players, employees, guests – about fundamental lightning safety Do's and Don'ts. This education program means safety publicity in the form of posters on indoor and outdoor bulletin boards, stickers on cash registers and all maintenance equipment and at other creative locations. **PRINT THE MESSAGE AND DISTRIBUTE IT.** The United States Golf Association has had lightning safety information available in poster and sticker form for many years, by example. The basic personal lightning safety message is:

If close-in lightning threatens you:

- *Avoid tall trees, avoid water, avoid the high ground, avoid metal objects.*
- *Rain shelters or picnic pavilions are not safe places from lightning. So-called "lightning-proof" shelters are an oxymoron – they are not safe. Metal-roofed shelters must be grounded correctly.*
- *Stay off the open fairways where buried metallic irrigation wires present a large antenna for lightning.*
- *Golf cars and other rubber tired equipment are not safe places.*
- *Seek safe shelter in a substantial and enclosed building or a fully enclosed metal vehicle.*
- *Wait 30 minutes after the last observed lightning or thunder before resuming activities.*

- c. Schools and colleges, golf course owners, Park and Rec officials and association Boards of Directors should adopt a clear policy statement about lightning safety, and post it for all to read and see. If there is no policy and players are entirely on their own, then that too should be published in clear form. Need a justification for doing this? The NCAA Sports Medicine Handbook requires lightning safety measures to be in place at 12,000 colleges and universities in the USA.

- d. Players, employees and spectators on the playing field should cease activities and evacuate to safety at the first signs of either thunder or lightning. There is no predicting what the next strike will target after you observe a faraway strike. The average distance between successive lightning strikes is about 5-7 miles. The threat from lightning is greatest at the beginning and the end of a thunderstorm. Don't wait for the rain to come in before suspending play: lightning usually appears before the rain.
- e. The forum for lightning safety in recreation should be expanded. The sports media should carry regular mention of lightning's threat. Local, state, and national tournament play should display lightning safety information in a prominent manner. Sports exhibitions, professional conferences, and equipment manufacturers should take part in promulgating the safety message. Changing people's attitudes from ignoring the hazard to dealing with it in a rational way will require a generation of attention to the subject. Are you prepared to be a part of the solution?

Conclusion:

**“IF YOU CAN HEAR IT, CLEAR IT.
IF YOU CAN SEE IT, FLEE IT”.**