

Lightning safety for Northern SC:

Please distribute to coaches, referees, parents, and players, especially in lightning season. Below are some websites to provide information and to test your knowledge. The National Lightning Safety Institute suggests that “if you can see it, flee it; if you can hear it, clear it.” The NCAA Lightning Guidelines are attached at the end of this document. A couple of facts that coaches should be minimally aware of:

- (1) The canopies covering picnic areas are generally NOT considered safe areas to wait out storms; only enclosed vehicles or enclosed buildings with appropriate “grounding” are considered safe.
- (2) Minimally, Risk Management Guidelines suggest the 30/30 rule (but be aware that this does not consider how fast the storm may be moving, and leaving the fields at the first sign of lightning and thunder is the safest and best approach).
- (3) Coaches should minimally be aware of weather forecasts and not allow parents to leave the field area if the weather is threatening. Have a safe location and field evacuation plan.
- (4) If parents or players are not comfortable with the weather, cancel the practice and clear the fields. As a coach, do not push to get in a game or practice with threatening conditions.

http://www.lightningsafety.com/nlsi_pls/lst.html

This site, prepared by the National Lightning Safety Institute in Louisville, Colorado, offers personal lightning safety tips.

<http://www.redcross.org/services/youth/izone/quizzes.html>

Take this American Red Cross quiz to test your lightning safety smarts.

<http://home.fuse.net/engineering/Lightningmenu.htm>

Did you know that when you hear even faint thunder, you’re within reach of a lightning strike? Discover more lightning facts and lightning myths (it does strike twice!) at this comprehensive site.

<http://www.mos.org/sln/toe/safety.html>

Is it safe to use the telephone during a lightning storm? Learn the answer in this quick quiz from the Boston Museum of Science.

Personal Lightning Safety Tips

1. **PLAN** in advance your evacuation and safety measures. 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.

2. **IF OUTDOORS...** Avoid water. Avoid the 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. 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. If lightning is striking nearby when you are outside, you should:

A. **Crouch down.** Put feet together. Place hands over ears to minimize hearing damage from thunder.

B. **Avoid proximity** (minimum of 15 ft.) to other people.

3. **IF INDOORS...** *Avoid water. Stay away from doors and windows. Do not use the telephone. Take off head sets. Turn off, unplug, and stay away from appliances, computers, power tools, & TV sets. Lightning may strike exterior electric and phone lines, inducing shocks to inside equipment.*

4. **SUSPEND ACTIVITIES** *for 30 minutes after the last observed lightning or thunder.*

5. **INJURED PERSONS** *do NOT carry an electrical charge and can be handled safely. Apply First Aid procedures to a lightning victim if you are qualified to do so. Call 911 or send for help immediately.*

6. **KNOW YOUR EMERGENCY TELEPHONE NUMBERS.**

Teach this safety slogan:

"If you can see it, flee it; if you can hear it, clear it."

Please reprint & distribute.

Prepared by the National Lightning Safety Institute , Louisville, CO.



GUIDELINE 1d

Lightning Safety

July 1997 • Revised June 2003

The NCAA Committee on Competitive Safeguards and Medical Aspects of Sports acknowledges the significant input of Brian L. Bennett, ATC, College of William and Mary, and Ronald L. Holle and Raul Lopez of the National Severe Storms Laboratory, in the development of this guideline.

Lightning is the most consistent and significant weather hazard that may affect intercollegiate athletics. Within the United States, the National Severe Storms Laboratory (NSSL) estimates that 100 fatalities and 400-500 injuries requiring medical treatment occur from lightning strikes every year. While the probability of being struck by lightning is extremely low, the odds are significantly greater when a storm is in the area and the proper safety precautions are not followed.

Prevention and education are the keys to lightning safety. Education begins with background information on lightning. The references associated with this guideline are an appropriate resource. Prevention should begin long before any intercollegiate athletics event or practice. The following steps are recommended by the NCAA and NSSL to mitigate the lightning hazard:

1. Designate a chain of command as to whom monitors

threatening weather and who makes the decision to remove a team or individuals from an athletics site or event. An emergency plan should include planned instructions for participants as well as spectators.

2. Obtain a weather report each day before a practice or event. Be aware of potential thunderstorms that may form during scheduled intercollegiate athletics events or practices.

3. Be aware of National Weather Service-issued (NWS) thunderstorm "watches" and "warnings" as well as the signs of thunderstorms developing nearby. A "watch" means conditions are favorable for severe weather to develop in an area; a "warning" means that severe weather has been reported in an area and for everyone to take proper precautions.

4. Know where the closest "safe structure or location" is to the field or playing area, and know how long it takes to get to that safe structure or location.

Safe structure or location is defined as:

- a. Any building normally occupied or frequently used by people, i.e., a building with plumbing and/or electrical wiring that acts to electrically ground the

structure. Avoid using shower facilities for safe shelter and **do not use** the showers or plumbing facilities during a thunderstorm.

- b. In the absence of a sturdy, frequently inhabited building, any vehicle with a hard metal roof (not a convertible or golf cart) and rolled-up windows can provide a measure of safety. A vehicle is certainly better than remaining outdoors. It is not the rubber tires that make a vehicle a safe shelter, but the hard metal roof which dissipates the lightning strike around the vehicle. **DO NOT TOUCH THE SIDES OF THE VEHICLE!**

5. Be aware of how close lightning is occurring. The flash-to-bang method is the easiest and most convenient way to estimate how far away lightning is occurring. Thunder always accompanies lightning, even though its audible range can be diminished due to background noise in the immediate environment, and its distance from the observer. To use the flash-to-bang method, count the seconds from the time the lightning is sighted to when the clap of thunder is heard. Divide this number by five to obtain how far away (in miles) the lightning is occurring. For example, if an individual

counts 15 seconds between seeing the flash and hearing the bang, 15 divided by five equals three; therefore, the lightning flash is approximately three miles away.

Lightning awareness should be increased with the first flash of lightning or the first clap of thunder, no matter how far away. This activity must be treated as a wake-up call to intercollegiate athletics personnel. The most important aspect to monitor is how far away the lightning is occurring, and how fast the storm is approaching, relative to the distance of a safe shelter.

Specific lightning-safety guidelines have been developed with the assistance of the National Severe Storms Laboratory (NSSL).

1. As a minimum, NSSL staff strongly recommend that by the time the monitor obtains a flash-to-bang count of **30** seconds (equivalent to six miles), all individuals should have left the athletics site and reached a safe structure or location. Athletics events may need to be terminated.

2. The existence of blue sky and the absence of rain are not protection from lightning. Lightning can, and does, strike as far as 10 miles away from the rain shaft. It does not have to be raining for lightning to strike.

3. If no safe structure or location is within a reasonable distance, find a thick grove of small trees surrounded by taller trees or a dry ditch. Assume a crouched position on the ground with only the balls of the feet touching the ground, wrap your arms around your knees and lower your head. Minimize contact with the ground, because lightning current often enters a victim through the ground rather than by a direct overhead strike. **MINIMIZE YOUR BODY'S SURFACE AREA, AND MINIMIZE CONTACT WITH THE GROUND! DO NOT LIE FLAT!** If unable to reach safe shelter, stay away from the tallest trees or objects (such as light poles or flag poles), metal objects (such as fences or bleachers), individual trees, standing pools of water, and open fields. Avoid being the highest object in a field. Do not take shelter under a single, tall tree.

4. A person who feels his or her hair stand on end, or skin tingle, should immediately crouch, as described in item 3.

5. Avoid using the telephone, except in emergency situations. People have been struck by lightning while using a land-line telephone. A cellular phone or a portable remote phone is a safe alternative to land-line phones, if

the person and the antenna are located within a safe structure or location, and if all other precautions are followed.

6. When considering resumption of an athletics activity, NSSL staff recommends that everyone should ideally wait at least 30 minutes after the last flash of lightning or sound of thunder before returning to the field or activity.

7. People who have been struck by lightning **do not** carry an electrical charge. Therefore, cardiopulmonary resuscitation (CPR) is safe for the responder. If possible, an injured person should be moved to a safer location before starting CPR. Lightning-strike victims who show signs of cardiac or respiratory arrest need emergency help quickly. Prompt, aggressive CPR has been highly effective for the survival of victims of lightning strikes.

Note: Flash-to-bang count, weather watchers, real-time weather forecasts and commercial weather warning devices are all tools that can be used to aid in decision-making regarding stoppage of play, evacuation and return to play.



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