



Severe Weather and Lightning Safety

Updated 2018

Introduction:

Lightning is the most consistent and significant weather hazard that may affect intercollegiate athletics. Just as in any other emergency situation it is vital that a plan is in place to ensure the safety of all who are participating and watching athletic activities. It is also important, even though rare in this area, that there is a plan in place in the event that there is a tornado spotted or local warning issued.

Alert Systems:

The University of North Carolina subscribes to the Weather Data, Inc. service. Each Staff Athletic Trainer of an outdoor sport (Baseball, Cross Country, Field Hockey, Golf, Football, Lacrosse, Rowing, Soccer, Softball, Tennis and Track) is issued an Alphanumeric Pager with a lead number that Weather Data will use to issue warnings. Each member of the Sports medicine Staff (Physicians, Athletic Trainers, GA Athletic Trainers, UG Athletic Training students) are required to register their work and personal cell phone numbers with Alert Carolina, and WxSentry,

The Warnings and alerts issued by Alert Carolina for Tornadoes will supersede the warnings from Weather Data/ Weather Sentry. Warning Sirens will be activated if a tornado threat is imminent for any part of Campus. In case of a Tornado warning, all staff and athletes **MUST** proceed to a safe area (stairwells, areas of buildings away from windows and doors) and will remain there until an **ALL CLEAR** signal is given. Safe areas for lightning and tornadoes differ; structural stability is the main requirement of a tornado safe structure rather than with lightning, being indoors away from electric and water lines.

Weather Data:

The longitude and latitude of Kenan Stadium is the target point to establish the various perimeter alerts or warnings used in the communications from Weather Data. When there is a storm containing lightning in the vicinity of the UNC campus, the weather service pages the Sports Medicine alphanumeric pagers with specific information. Weather Data, will text the pager with a Lightning Alert when a storm or lightning strike occur within a **15 mile radius of Kenan Stadium**. If the storm continues to approach the campus, subsequent warnings will be issued when the storm is inside a **10 mile perimeter**. When this warning is received, coaches and staff should be alerted to move toward a safe structure. An additional warning will be issued when there is a lightning strike inside a **8 mile perimeter**. Everyone should be inside a safe structure when this warning is received. Weather Data will issue a cancel warning when the threat of the storm has passed. Practice or play can resume safely at this point

After 5 PM and on weekends during the academic year, upon receiving a weather alert from Weather Data, the UNC Sport Clubs Athletic Training Staff will activate the RAVE – UNC Sport Club Weather Alert system to send a text message to the phones of the Team Officials, Sports Medicine Staff and

Students warning them of approaching storms and they will follow the same protocol for moving players and staff to safe structures. When a weather warning is received, the Athletic Trainer covering Intramurals is responsible for making radio contact with the IM Game Officials to alert them to the conditions and give them instruction for moving their participants to a safe area.

Games or practices may resume when the storm has moved through and the closest lightning is beyond the **10-mile radius**.

WxSentry: All staff athletic trainers have a log into the university contracted system. All were instructed to set radius' that will alert the AT based on the desired mileage (8miles, 15miles) from location or preset area when lightning strikes on their cell phone app. Any questions can be directed to the chat function of the app.

Flash -to -Bang

In the event that weather pager is not available coaches and Athletic Trainers should also be familiar with the flash-to-bang method of estimating 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 is approximately three miles away.

As a minimum, the National Severe Storms Laboratory (NSSL) strongly recommends that by the time the monitor obtains a flash-to-bang count of 30 seconds, all individuals should have left the athletic site and reached a safe structure or location.

The 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. Weather Data will issue a cancel warning message when the storm moves a safe distance beyond the campus.

The decision to remove people from an outdoor facility due to threatening weather will be made as follows:

Football Game Day Protocol

The weather monitoring and communication of weather information during football games will be the responsibility of the Games Operations Staff and the Kenan Football Stadium Command.

If a weather alert is received prior to the game, the Games Operation Staff has the responsibility to delay and restart the preparation for the games.

If a weather alert is received during the contest, Games Operation Staff will inform the game official and coaches of the situation and will follow the ACC Guidelines on informing the fans, stopping and restarting the game.

The guidelines call for the Public Address System to alert the fans when a storm is within a 15 mile radius and to stop the contest and evacuate the field when the storm is within a 6 mile radius. The game may be restarted when the storm has moved beyond a 10 mile radius

Football Game decisions are covered under a separate policy.

Outdoor Sports-All other sports except football

1. Prior to game – the athletic trainer will advise the games operations staff about weather related issues. The games operations staff has the responsibility to cancel delay or allow play.
2. During game – the athletic trainer will advise game officials about weather related issues. The game officials have the responsibility to stop and restart or cancel the game.
3. Practice – prior to and during practice, the athletic trainer will advise the coach about weather related issues. The coach has the responsibility to cancel, delay, stop and restart the practice. The athletic training staff will follow the above protocol and will not remain on the field if the coach ignores the weather warning. The athletic training staff can get real time information from the Weather Data Service so the practice opportunity can be maximized.
4. The Staff Athletic Trainer for each Outdoor Sport will be in communication with their coach to discuss any weather forecast that might present problems for the practice or game as scheduled and provide the weather information needed to help with practice or event planning. The Staff Athletic Trainer for each sport can initiate calls to Weather Data for forecasting. Weather Data's predictions are excellent for imminent weather events but long-range forecast are equivalent to the National Weather Service or the local TV meteorologist. If the forecast calls for thunderstorms, call the Stallings Evans Sports Medicine Center (919-962-2067) for an update before going out to practice, the athletic training staff member covering the practice should check to make sure their pager is operational and once at the practice site make sure communication devices are operational before beginning practice.

If the team is removed from the field, everyone should go to the closest safe structure and remain there until given an all-clear by game official, coach or athletic trainer. The following safe structures have been identified for each facility:

Site	Safe Structures
1. <u>Fetzer Field/Hooker</u>	<u>Lightning Safe</u> – inside the Eddie Smith Indoor Track Facility, McCaskill Soccer Center, Carmichael Auditorium, Woollen Gym <u>Tornado Safe</u> – Stairwell of Eddie Smith Indoor Track, Locker Rooms of McCaskill Soccer Center, Locker Rooms or Bath Rooms of Carmichael Auditorium or Woollen Gym
2. <u>Navy Field</u>	<u>Lightning & Tornado Safe</u> -Henry Stadium Locker Rooms or Bath Rooms, Boshamer Stadium offices/locker rooms
3. <u>Boshamer Stadium</u>	<u>Lightning & Tornado Safe</u> - Locker Rooms
4. <u>Kenan Stadium</u>	<u>Lightning & Tornado Safe</u> - Locker Rooms

5. **Finley Fields** Lightning Safe - Vehicles

Tornado Safe – Get in vehicle buckle seat belt and drive to the closest tornado safe structure Golf Course Club House, Ronald McDonald House, Athletic Department Buildings - 220

6. **Finley Softball Field** Lightning Safe - Vehicles

Tornado Safe – Get in vehicle buckle seat belt and drive to the closest tornado safe structure - Golf Course Club House, Ronald McDonald House, Athletic Department Buildings - 220

7. **Tennis Center** Lightning Safe - Indoor Facility

Tornado Safe – Lower level Locker Room or Bath Rooms

8. **University Lake** Lightning Safe – Boathouse (This structure has a sliding door that is usually open, while not ideal, being inside away from the door and walls is probably OK), Vehicles

Tornado Safe -- Get in vehicle buckle seat belt and drive to the closest tornado safe structure (Food lion, store,etc)

9. **Anderson Softball Complex** Lightning Safe – Team Room, Locker Rooms

Tornado Safe– Interior Hallway, Bath Room, Athletic Training Room

10. **Finley Golf Course** Lightning Safe - Locker Rooms or Club House

Tornado Safe – Locker Room, Interior Hallway, Bath Room, Kitchen Area

According to the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports, if individuals are unable to reach a safe structure, try to move away from tall structures, to lower lying areas. 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! Stay away from the tallest trees or objects (such as light poles or flag poles), 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.

According to the Red Cross, if an individual sees a funnel cloud approaching and there is no structure available, they should immediately get in a car, buckle their seatbelt and drive away from the cloud to a safe location. If flying debris occurs while you are driving, stay belted in the car with you head below the window, covering your head with hands or blanket. If a car is not available, find a low lying area such as a ditch and lay close to the ground.

Management of individuals after lightning strike

Management of lightning victims includes establishing and maintaining normal cardiorespiratory status. Rescuers should move the victim to a lightning safe location before beginning attempts at resuscitation as rescuers may be vulnerable to a lightning strike. The patient's airway, breathing, circulation, and heart rhythm (using AED) should be assessed.

Patients may present in asystole (defibrillation not indicated) which requires continued CPR until advanced life support (911) is available.

Return to Play

Lightning Strike victims are OK for return to play after being cleared by their Team Physician. Each case is very individual and the patient may need consistent multidisciplinary medical and psychological follow-up.

Approved by: _____ Date: _____
Mario Ciocca, MD