



## Guidelines for Lightning Safety

Lightning is one of the most frequent causes of weather-related injuries in the United States. According to the National Severe Storms Laboratory, every year lightning causes hundreds of injuries requiring medical attention.

Lightning-related injuries are of particular concern during the late spring and summer months, with the vast majority occurring from May to September.

Although most injuries occur between 10 a.m. and 7 p.m., lightning-related injuries hit their highest point between 2 p.m. and 6 p.m., which is the time that outdoor scholastic activities often take place.

Lightning can strike many miles away from where rain is actually falling. Many people sometimes incorrectly assume that the rain is too far away for lightning to strike their area, but most people are struck by lightning before the rain arrives or after the rain has passed.

Lightning seeks the path of least resistance to the ground. Because the human body is 90 percent water, it's a good electrical conductor; therefore, humans are unfortunately, not an impracticable target.

Coaches, athletic trainers, athletes, and administrators should be educated in recognizing the signs of on-coming thunderstorm activity in order to prevent the possibility of lightning-related injury.

First, weather should be monitored using the following methods:

- **Monitor weather patterns** - Know when storms are approaching the area. Local radio, T.V., and the Internet are good sources for weather tracking.
- **National Weather Service** – Portable or car weather radios tuned to the National Weather Service are convenient for use during remote or outdoor activities.

Secondly, if lightning is in the area:

- If lightning is present or a thunderstorm is approaching, all personnel, athletes, and spectators should **evacuate** to safe places.
- Safe shelter should be sought inside buildings or automobiles, not under bleachers or sitting in a golf cart.
- **Use the "30-30 Rule"**
  - 30 seconds: Count the seconds between seeing lightning and hearing thunder. If the time is less than 30 seconds the lightning could be a potential threat.
  - 30 minutes: After the last lightning flash you see, wait 30 minutes before leaving the shelter and returning to the activity.

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- **“Flash-to-Bang” Method**

Use this method to roughly approximate how far away the lightning is striking. Count the number of seconds it takes to hear a clap of thunder after witnessing a flash. The number of seconds divided by 5 will give an approximate distance in miles. If flash-to-bang is 30 seconds or less, all participants and staff should be removed to safety.

Thirdly, **prevention** is the key to lightning safety. Take a proactive approach by:

- Planning in advance for events. Take into account oncoming weather.
- Educating staff about how to recognize signs of nearby lightning, and procedures they should follow during weather emergencies.
- Developing criteria for suspension and resumption of play in the event of lightning or other weather event.
- Having an emergency weather evacuation plan, including a list of shelters.
- Performing periodic reviews and practices of the lightning safety plan with facility staff and participants.



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