

*On average, lightning causes more casualties in the United States than any other storm-related phenomena, with the exception of floods. Lightning is the most frequent weather hazard impacting athletic or other outdoor events. Each person must take responsibility for his or her own personal safety during thunderstorms. People are often under the direction of others when participating in organized outdoor events; therefore, coaches, game officials and event organizers must understand the hazards of lightning and become familiar with proven safety strategies.*

### Lightning Safety Policy

A lightning safety policy should be in place at every facility where outdoor events are held. The policy should be known in advance to all persons involved. The following components are recommended:

- An established chain of command that identifies who is to make the call to discharge participants and spectators from the field or from an activity.
- Decision criteria for determining when to suspend/resume activities.
- A designated weather watcher.
- A means of monitoring local weather forecasts and warnings. An inexpensive portable weather radio is recommended for obtaining timely storm data; however, the sound of thunder should always be considered an immediate warning.
- A list of specific safe locations for each field or site, with sufficient people in charge to route visitors and spectators to these locations.
- Posted informational signs at event sites or in flyers outlining lightning policy.
- Periodic review of the policy by all personnel.
- Drills should be conducted.

### Safe Shelter

The primary choice for a safe shelter from lightning is a fully enclosed building that has plumbing and electrical service. Do not take shelter



under or near trees, bleachers, dugouts or picnic shelters. When inside a building, avoid using the telephone, taking a shower, washing hands or making any contact with conductive surfaces with exposure to the outside, such as metal door or window frames, electrical wiring, telephone wiring and plumbing fixtures.

The secondary choice for a safe location is a fully enclosed vehicle with a metal roof and closed windows. Convertibles and golf carts are not safe. School buses are an excellent lightning shelter, if strategically placed where people can quickly access them.

*Continued*

### When to Seek Shelter

Apply the 30/30 Rule: When you see lightning, count the time until you hear thunder. If it is 30 seconds or less, suspend outdoor activities and seek proper shelter. Once activities have been suspended, wait 30 minutes or more after hearing the last thunder before resuming an activity or returning outdoors.

An emergency announcement should be read over the public address system directing people to shelter. Lightning safety tips and/or the emergency action plan should be placed in game programs or flyers, alerting those in attendance about what to do and where to go to find a safe location during a thunderstorm. Lightning warning signs posted at event sites are an effective way to communicate lightning threats and action plans to the general public.

Large athletic events can be particularly challenging when planning for lightning safety. A comprehensive approach may be the most effective method to lessen lightning danger, such as integrating weather forecasts and real-time thunderstorm data, engaging a weather watcher, making use of lightning detection equipment, and emphasizing the 30-30 rule.

### For Additional Information

#### National Lightning Safety Institute:

[www.lightningsafety.com](http://www.lightningsafety.com)

#### National Weather Service: [www.noaa.gov](http://www.noaa.gov)

- Lightning Safety Resources

#### EMC Tech Sheets:

[www.emcins.com](http://www.emcins.com)

- Lightning Protection
- Lightning Safety For Outdoor Workers