

LIGHTNING...The Underrated Killer!

A SAFETY GUIDE

**U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION, NATIONAL WEATHER SERVICE**

This safety guide has been prepared to help coaches and sports officials recognize the dangers of lightning and take appropriate safety precautions.

LIGHTNING KILLS...Play It Safe!

Each year in the United States, more than four hundred people are struck by lightning. On average, about 70 people are killed and many others suffer permanent neurological disabilities. Most of these tragedies can be avoided if proper precautions are taken. When thunderstorms threaten, coaches and sports officials must not let the desire to start or complete an athletic activity hinder their judgment when the safety of participants and spectators is in jeopardy.

It is important for coaches and officials to know some basic facts about lightning and its dangers

- **All thunderstorms produce lightning and are dangerous.** In an average year, lightning kills more people in the U.S. than either tornadoes or hurricanes.
- **Lightning often strikes outside the area of heavy rain and may strike as far as 10 miles from any rainfall.** Many deaths from lightning occur ahead of storms because people wait too long before seeking shelter, or after storms because people return outside too soon.
- **If you hear thunder, you are in danger.** Anytime thunder is heard, the thunderstorm is close enough to pose an immediate lightning threat to your location.
- **Lightning leaves many victims with permanent disabilities.** While only a small percentage of lightning strike victims die, many survivors must learn to live with very serious, life-long disabilities.

To avoid exposing athletes and spectators to the risk of lightning take the following precautions

- **Postpone activities if thunderstorms are imminent.** Prior to an event, check the latest forecast and, when necessary, postpone activities early to avoid being caught in a dangerous situation. Stormy weather can endanger the lives of participants, staff, and spectators.

- **Plan ahead.** Have a lightning safety plan.
- Know where people will go for safety, and know how much time it will take for them to get there. Have specific guidelines for suspending the event or activity so that everyone has time to reach safety before the threat becomes significant. Follow the plan without exception.
- **Keep an eye on the sky.** Pay attention to weather clues that may warn of imminent danger. Look for darkening skies, flashes of lightning, or increasing wind, which may be signs of an approaching thunderstorm.
- **Listen for thunder.** If you hear thunder, immediately suspend your event and instruct everyone to get to a safe place. Substantial buildings provide the best protection. Once inside, stay off corded phones, and stay away from any wiring or plumbing. Avoid sheds, small or open shelters, dugouts, bleachers, or grandstands. If a sturdy building is not nearby, a hard topped metal vehicle with the windows closed will offer good protection, but avoid touching any metal.
- **Avoid open areas, Stay away from trees, towers, and utility poles. Lightning tends to strike the taller objects.**
- **Stay away from metal bleachers, backstops and fences. Lightning can travel long distances through metal.**
- **Do not resume activities until 30 minutes after the last thunder was heard.**
- **As a further safety measure, officials at outdoor events may want to have a tone alert NOAA Weather Radio.** The radio will allow you to monitor any short-term forecasts for changing weather conditions, and the tone-alert feature can automatically alert you in case a severe thunderstorm watch or warning is issued. To find your nearest NOAA weather radio transmitter, go to <http://www.nws.noaa.gov/nwr/> and click on “Station Listing and Coverage.”

If you feel your hair stand on end (indicating lightning is about to strike)

- **Crouch down on the balls of your feet, put your hands over your ears, and bend your head down.** Make yourself as small a target as possible and minimize your contact with the ground.
- **Do not lie flat on the ground.**

What to do if someone is struck by lightning

- **Lightning victims do not carry an electrical charge, are safe to handle, and need immediate medical attention.**

- **Call for help.** Have someone call 9-1-1 or your local ambulance service. Medical attention is needed as quickly as possible.
- **Give first aid.** Cardiac arrest is the immediate cause of death in lightning fatalities. However, some deaths can be prevented if the victim receives the proper first aid immediately. Check the victim to see that they are breathing and have a pulse and continue to monitor the victim until help arrives. Begin CPR if necessary.
- **If possible, move the victim to a safer place.** An active thunderstorm is still dangerous. Don't let the rescuers become victims. Lightning CAN strike the same place twice.

STAY INFORMED

Listen to NOAA Weather Radio for the latest forecast and for any severe thunderstorm WATCHES or WARNINGS. Severe thunderstorms produce winds of 58 mph or greater, or hail 3/4 of an inch or larger in diameter.

- **A severe thunderstorm WATCH is issued** when conditions are favorable for severe weather to develop.
- **A severe thunderstorm WARNING is issued** when severe weather is imminent. National Weather Service personnel use information from weather radar, satellite, lightning detection, spotters, and other sources to issue these warnings.

NOAA WEATHER RADIO IS THE BEST WAY TO RECEIVE FORECASTS AND WARNINGS FROM THE NATIONAL WEATHER SERVICE.

Remember that all thunderstorms produce lightning and all lightning can be deadly to those outside.

For additional information on lightning or lightning safety, visit

NOAA's lightning safety web site: <http://www.lightningsafety.noaa.gov>
or contact us at:

**National Weather Service
4899 South Complex Drive SE
Grand Rapids, MI 49512-4034**