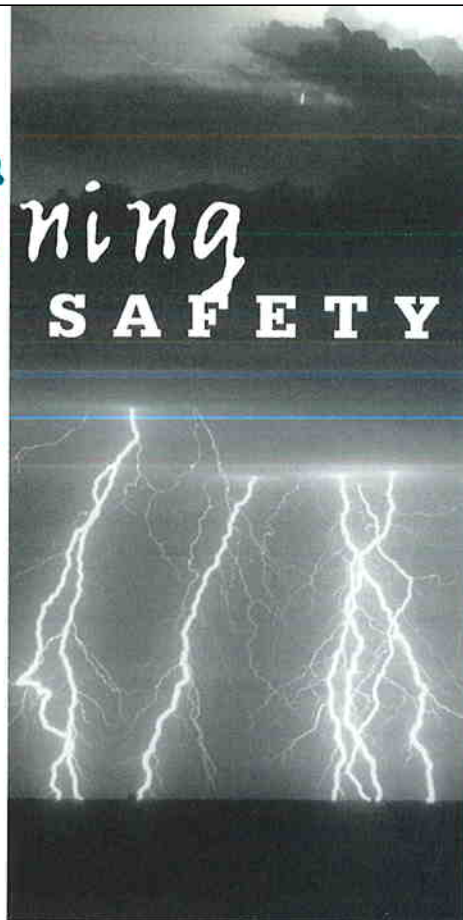




Lightning SAFETY



By USOC Sports Medicine Staff

With spring and summer just around the corner, the danger of lightning is of concern to coaches, athletes, athletic trainers and administrators whose sports are played outdoors. A set of guidelines, developed by Brian Bennett, ATC, with assistance from the National Severe Storms Laboratory (NSSL) were developed to assist athletes, coaches and other sport officials in safeguarding individuals involved in outdoor sports.

FLASH-TO-BANG

How far away is lightning occurring? The flash-to-bang method of estimating is the easiest and most convenient to use. 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 the distance (in miles) from you that the lightning is occurring. For example, if you count 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.

GUIDELINES

1. As a minimum, the NSSL staff recommends that by the time an individual obtains a flash-to-bang count of 30 seconds, all individuals should have left the sport site and reached a safe structure. Athletic events may need to be terminated and rescheduled at another date or time.
2. The existence of blue sky and the absence of rain are not protection from lightning, as it can and does strike as far as 10 miles from the rain shaft.
3. If there is not a safe structure or location 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; do not lie flat!

If you are unable to reach safe shelter, stay away from the tallest trees or objects such as light poles, flagpoles, etc., metal objects like fences or bleachers, trees standing alone, 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. If you feel your hair standing on end or skin tingling, immediately crouch as described in guideline number three.
5. Avoid using the telephone except in emergency situations; individuals have been struck by lightning while using a landline telephone. A cell phone or a portable remote phone is a safe alternative to landline phones, if the individual and the antenna are located within a safe structure or location and all other precautions are followed.
6. Individuals struck by lightning do not carry an electrical charge; therefore, it is safe for a responder to treat them with cardiopulmonary resuscitation (CPR). If possible, move the victim 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.
7. The NSSL recommends that there should ideally be a wait of at least 30 minutes after the last lightning flash or clap of thunder before returning to the field for athletic activity.