SPORTS MEDICINE ARTICLE #2

Lightning Safety Precautions

- Source: Utah High School Activities Association

1. Days before the activity be aware of the possibility of storms that may form in the area and at the time of an activity. Listen to weather reports each day before practice or any event. Be wary of thunderstorms developing nearby. Thunderstorms can become threatening in as little as half an hour. Lightning and thunder activity in the local area are the "alarms" for personnel to begin monitoring thunderstorm activity, such as direction of movement and distance from the lightning flashes.

2. Know where the closest safe shelter is to the field or playing area, and know how long it takes to get to that safe shelter.

   Safe shelter is defined as:
   - Any sturdy building normally occupied or frequently used by people. In other words, a building with metal plumbing or wiring that acts to electrically ground the structure. A shack or metal shed is not considered a safe shelter.
   - In the absence of a sturdy, frequently inhabited building, any vehicle with a hard metal roof (not a convertible), with the windows rolled up can provide a measure of safety. Taking shelter in the proper vehicle is certainly better than remaining outdoors.

3. Personnel should be aware of how close lightning is occurring. One myth pertaining to lightning is that lightning sometimes occurs without thunder. What most people call "heat lightning" is actually lighting from a thunderstorm too distant for the thunder to be heard. Thunder always accompanies lightning, even though its audible range is less than the actual distance to the observer. Pay much more attention to the lightning threat than to the rain. Lightning can strike far from the rain shaft.

   The **"flash to bang"** method is the easiest way to estimate how far away lighting activity is occurring. Simply stated, count the seconds between seeing the lightning **("flash")** and hearing the clap of thunder (**"bang"**). Divide this number by five to obtain how far away (in miles) the lightning activity is occurring.

4. Stay away from the tallest tree or long objects (such as a light pole or flag pole), metal objects (such as metal fences or metal bleachers), individual trees, standing pools of water, and open fields. Avoid being the highest object in a field and do not take shelter under a single, tall tree.

   If a person feels his or her hair stand on end or their skin tingle, immediately:

Assume a crouched position on the ground, wrap your arms around your knees with only the balls of your feet touching the ground and lower your head. Minimize contact with the ground, because lightning current often enters a victim through the ground rather than a direct overhead strike. Minimize your body's surface area, and do not lie flat.

The UHSAA and the State Division of Risk Management recommend the following policy on lightning safety for all high school outdoor or swimming pool activities:

1. **If the "flash to bang" interval is decreasing rapidly and the storm is approaching your location all outdoor athletic activities should cease. All people should be asked to leave the athletic site and seek safe shelter. For other storms, if the "flash to bang" method approaches 30 seconds, consideration should be given to suspending the outdoor activity. This consideration should include the speed and direction of storms and weather patterns in the local area.**

2. **It is recommended that all personnel involved wait at least 30 minutes after all lightning and thunder activity has stopped before resuming activities.**

3. **Land line telephones should not be used, except in emergency situations.**

FLASH TO BANG METHOD:

Count the seconds between seeing the lightning **("flash")** and hearing the clap of thunder **("bang").** Divide this number by 5 to obtain how far away **(in miles)** the lightning activity is occurring.

Example: If the count between seeing the flash and hearing the bang is 30 seconds, then divide 30 by five. This means that the lightning is 6 miles away.