Weather Related Protocols

Inclement weather is always a distinct possibility when competing in outdoor activities in the spring and fall in the Midwest. Knox College staff will utilize an online weather monitoring system, WeatherSentry Online®, to make decisions regarding safety of weather conditions. Below are the guidelines to be followed when dealing with the following conditions:

**Lightning/Stormy Weather Plan:**
The following protocol will be followed for lightning detection for all athletic activities:

1. A lightning strike within the 30 mile radius of the designated campus will trigger a text or email message alert **Advisory** to the designated individual. Within 20 miles will trigger a text alert **Caution**. This is to alert administrators, athletic trainers, and coaches that severe weather is moving into the area.

2. A lightning strike within the 8 mile radius will trigger an additional text or email message alert **Warning** to the designated individuals. Upon receiving this text or email, all individuals will be removed from the field of play, and should be moved to a livable structure.

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---A livable structure is defined as an indoor area that people normally frequent and that is supplied with plumbing and electricity that ground the building. This structure should be pre-arranged and be as close to the competition site as possible. An automobile or bus would be a satisfactory substitute.

3. No event may resume or start until the all clear text or email message is received by the designated individuals. This text message indicates 30 minutes have passed since the last lightning strike within the warning areas (8 mile radius).

In the event of a situation requiring clearance of the practice/competition field:

- **Go to the closest livable structure** (i.e. dorm, gymnasium, academic building)
  - Knosher Bowl – Memorial Gymnasium basement
  - Jorge Pratts Soccer Field – Quad dormitory or Memorial Gymnasium (Not soccer shed)
  - Turner Track at Trevor Field – Memorial Gymnasium basement
  - Blodgett Baseball Field – Memorial Gymnasium basement
  - Knox Softball Field – SMAC
  - Meridian Tennis Courts – Memorial Gymnasium or Quad dormitory
  - Cross Country/Golf - Nearest livable structure

Fans will be encouraged to return to their vehicles or the lobby of Memorial Gym for every location except Softball. An announcement will be made via the Public Address Announcer indicating the weather delay and the need to evacuate the playing venue as directed by the Sports Information Director or their designee. The SID or their designee will take responsibility to alert the spectators with the resumption of play.

- Stay clear of all metal structures (i.e. fences, dugouts), tall structures, and water
❖ Try to remove all metal objects from your person (i.e. metal spikes, javelins, jewelry, etc.)
❖ Do not return to the outdoors until all clear has been received from the online weather monitoring system (or after 20 minutes clear of lightning and/or severe weather activity)
❖ EVERYONE is required to clear the field including visiting team, fans, officials, administrators, athletic trainers, students, and other staff.

In the event that Weather Sentry® is not available, the flash-to-bang method will be used:

- **Clear the field when the flash to bang ratio is 30 or less**
  - Count the time from the flash of lightning to the bang of the thunder (5s = 1mi)

Lightning will be of the greatest concern to the health and well-being of our student athletes but tornadoes as well as severe rain storms that can also produce similar situations should also be dealt with in the same manner w/ the exception that athletes and personnel should be moved to the interior portion of the basements of the facilities that they have been sent. It is the responsibility of the team head coach to insure the safety and well being of their respective teams and support staff. All questions, concerns, and decisions may be forwarded to the certified athletic trainer on staff.

**Be sure to follow and adhere to the MWC Lightening Procedures for all competitions.**

**Tornado Warnings**
Inclement weather can be in the form of Tornadoes and straight line winds. In the event that a tornado warning and/or straight line wind warning occurs during indoor or outdoor activities, all athletes, personnel, and spectators should proceed to the basement of Memorial Gym. Best locations to shelter would be the showers in the locker room areas. The hallways could serve as wind tunnels in the event of a direct hit by a tornado. All individuals need to move from the hallways and into the locker rooms closing the doors behind.

**Heat Protocol**
Athletes must have adequate time to rehydrate and cool down in hot, humid weather. Heat related illness can be prevented with additional breaks during the competition. These guidelines are in accordance with the NCAA Sports Medicine Handbook (2c) and the National Athletic Trainers’ Association position statement on prevention of heat illness. The following guidelines will be followed in the event

<table>
<thead>
<tr>
<th>Feels Like Temperature (°F)</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;90 (“Caution”)</td>
<td>All competitions and regular practices with full practice gear can be conducted. Be cautious of those un-acclimatized to the conditions.</td>
</tr>
<tr>
<td>90-104 (“Extreme Caution”)</td>
<td>Additional water breaks should be given where athletes are given the opportunity to remove any protective equipment to allow the release of body heat. Practice plan should be modified according to the athlete’s level of acclimation. Reduced protective equipment may be considered.</td>
</tr>
<tr>
<td>105-119 (“Danger”)</td>
<td>Increase water breaks, reduced practice intensity, and reduced protective gear should be considered. Consider moving this practice to a more optimal time for temp. and humidity.</td>
</tr>
<tr>
<td>120 (“Extreme Danger”)</td>
<td>Under these conditions all practice and competitions should be suspended, moved to a time when conditions are safer.</td>
</tr>
</tbody>
</table>

**Be sure to follow and adhere to the MWC Temperature Guidelines for all competitions.**
It needs to be kept in mind that acclimatization is the key along with proper nutrition and fluid rehydration to the prevention of a heat related illness. Prevention is the best treatment for heat emergencies. Recognition is important in-order to begin treatment ASAP to prevent these illnesses from escalating into medical emergencies. The three types of heat related illnesses are heat cramps, heat exhaustion, and heat stroke. All are caused by the body becoming overheated, dehydrated, and depletion of the electrolyte levels to some degree. Heat cramps are the lowest in severity and are characterized by tonic contractures of the muscles, usually the calves, quads, or hams. Treatment consist of fluid replacement and stretching of the muscle group. Heat exhaustion is next on the scale and is characterized by profuse sweating, weakness, lethargy, headache, and possibly cold chills. Treatment is rehydration and cooling through moist towels and elimination of activity. Heat stroke is a medical emergency and is the body's cooling mechanism failing or shutting down. Heat stroke is characterized by the athlete red and burning up with the absence of sweating, lethargy to becoming unconscious, and usually difficulty breathing. Treatment for this involves quickly cooling through ice immersion and transportation to the hospital usually by ambulance. If any of these disorders are identified they should be referred immediately to the athletic training staff. Prevention and early identification remain our best defense against heat illness.

The Heat Index is the temperature the body feels when heat and humidity are combined; “feels like”. The chart below shows the Heat Index that corresponds to the actual air temperature and relative humidity. This chart is based upon shady, light wind conditions. Exposure to direct sunlight can increase the Heat Index by up to 15 degrees Fahrenheit.
**Cold Weather**

Hypothermia will be the concern with cold weather activities especially those that involve moisture. Precautions should be taken to prevent this by keeping the hands, feet, and head dry and covered to conserve the heat. Signs of hypothermia are loss of feeling to the extremities, lethargy, and a decrease of the core body temperature. Treatment is gradual warming of the body by changing wet clothing and replacing with warm layered clothing to trap air to act as a thermal barrier. The best treatment is prevention in being prepared for the elements by wearing proper clothing and cancelling outdoor activity when conditions dictate.

Knox College Athletics will follow the MWC Cold Weather Temperature Guidelines for all practice activities.

*Be sure to follow and adhere to the MWC Temperature Guidelines for all competitions.*

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**Wind Chill Chart**

![Wind Chill Chart](image)

**Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})**

Where, $T$ = Air Temperature (°F)  $V$ = Wind Speed (mph)

Reviewed 7/2019