

# KSHSAA RECOMMENDED EXCESSIVE HEAT/HUMIDITY ACTIVITY MODIFICATION POLICY

The modifications below should be applied to any sport/activity taking place outdoors OR in un-air conditioned facilities.

HEAT INDEX	HEAT STRESS RISK WITH PHYSICAL ACTIVITY AND/OR PROLONGED EXPOSURE
<b>80°-89° Zone 1</b>	<ul style="list-style-type: none"> <li>- Fatigue possible with prolonged exposure and/or physical activity</li> <li>- Monitor at-risk athletes closely</li> <li>- MINIMUM 3 rest/hydration breaks per hour / Break length MINIMUM 4 minutes</li> <li>- Cold tubs prepared and ready (recommended)</li> </ul>
<b>90°- 103° Zone 2</b>	<ul style="list-style-type: none"> <li>- Heat cramps or heat exhaustion possible</li> <li>- 2 HOUR MAXIMUM length of practice</li> <li>- Football: Helmets &amp; shoulder pads only / No protective equipment when conditioning</li> <li>- MINIMUM 4 rest/hydration breaks per hour / Break length MINIMUM 4 minutes</li> <li>- Cold tubs prepared and ready</li> </ul>
<b>103°- 124° Zone 3</b>	<ul style="list-style-type: none"> <li>- Heat cramps or heat exhaustion likely, heatstroke possible</li> <li>- 1 HOUR MAXIMUM length of practice</li> <li>- No protective equipment to be worn</li> <li>- No conditioning</li> <li>- Rest/hydration breaks MUST total 20 minutes</li> <li>- Cold tubs prepared and ready</li> </ul>
<b>&gt;124°</b>	<ul style="list-style-type: none"> <li>- Heatstroke highly likely</li> <li>- No outdoor practices or practices in un-air conditioned facilities should be permitted</li> </ul>
<ul style="list-style-type: none"> <li>- Participants should ALWAYS have unrestricted access to fluids.</li> <li>- These heat index ranges only provide general guidelines for assessing the potential severity of heat stress. Heat illness can occur at lower heat index values than indicated above.</li> <li>- Individual reactions to heat will vary. The full spectrum of heat illness conditions, including heat stroke can occur in any zone depending on the individual's reaction to the environment.</li> <li>- If the heat index value at your location is on the border between two levels, follow the guidelines for the more conservative level.</li> <li>- Heat index values should be rechecked every 30 minutes.</li> </ul>	

## HEAT INDEX CHART

Use the chart below to find the heat index based on air temperature and relative humidity at your site. Make every effort to obtain temperature and humidity levels at your site. Factors such as surface (artificial turf vs. natural grass) will affect air temperature readings. Find your air temperature value across the top of the chart and go down until you find your site's relative humidity value. **THIS IS THE HEAT INDEX based on the values you obtained.** It is an index of the body's sensation of heat caused by the temperature and humidity (the reverse of the "wind chill factor").

Environmental temperature (F°)																
	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	102°	104°	106°	108°	110°
Relative Humidity	Heat Index (Apparent Temperature)															
	The body's sensation of heat based on air temperature and humidity															
5%	77°	79°	80°	81°	83°	84°	86°	87°	89°	91°	93°	94°	96°	98°	100°	101°
10%	78°	79°	81°	82°	84°	85°	87°	89°	90°	92°	94°	96°	98°	100°	102°	104°
15%	78°	80°	81°	83°	84°	86°	88°	90°	92°	94°	96°	98°	100°	103°	105°	108°
20%	79°	80°	81°	83°	85°	86°	88°	90°	93°	95°	97°	100°	103°	106°	109°	112°
25%	79°	80°	82°	83°	85°	87°	89°	91°	94°	97°	100°	103°	106°	109°	113°	117°
30%	79°	80°	82°	84°	86°	88°	90°	93°	96°	99°	102°	106°	110°	114°	118°	122°
35%	80°	81°	83°	85°	87°	89°	92°	95°	98°	102°	106°	110°	114°	119°	123°	129°
40%	80°	81°	83°	85°	88°	91°	94°	97°	101°	105°	109°	114°	119°	124°	130°	136°
45%	80°	82°	84°	87°	89°	93°	96°	100°	104°	109°	114°	119°	124°	130°	137°	
50%	81°	83°	85°	88°	91°	95°	99°	103°	108°	113°	118°	124°	131°	137°		
55%	81°	84°	86°	89°	93°	97°	101°	106°	112°	117°	124°	130°	137°			
60%	82°	84°	88°	91°	95°	100°	105°	110°	116°	123°	129°	137°				
65%	82°	85°	89°	93°	98°	103°	108°	114°	121°	128°	136°					
70%	83°	86°	90°	95°	100°	105°	112°	119°	126°	134°						
75%	84°	88°	92°	97°	103°	109°	116°	124°	132°							
80%	84°	89°	94°	100°	106°	113°	121°	129°								
85%	85°	90°	96°	102°	110°	117°	126°	135°								
90%	86°	91°	98°	105°	113°	122°	131°									
95%	86°	93°	100°	108°	117°	127°										
100%	87°	95°	103°	112°	121°	132°										

Chart reproduced from the National Weather Service.

### Sources where temperature, relative humidity and heat index information can be obtained:

Use of a heat index monitor or sling psychrometer  
KSHSAA website ([www.kshsaa.org](http://www.kshsaa.org))

National Weather Service website ([www.weather.gov](http://www.weather.gov))  
Various weather websites and mobile applications

The wet bulb globe temperature is the gold standard to measure environmental conditions during exercise, but does require a specific monitor that will measure the WBGT at your local practice site. If you are not using WBGT to monitor conditions, using the heat index is an acceptable option.