



HEAT INDEX CHART

Use the chart below to assess the potential severity of heat stress. **The chart should be used as a guideline only – individual reactions to the heat will vary among your athletes!**

1. Across the top of the chart, locate the **ENVIRONMENTAL TEMPERATURE** i.e., the air temperature
2. Down the left side of the chart, locate the **RELATIVE HUMIDITY**.
3. Follow across and down to find the **APPARENT TEMPERATURE (HEAT INDEX)**. The apparent temperature is the combined index of heat and humidity. It is an index of the body’s sensation of heat caused by the temperature and humidity (the reverse of the “wind chill factor”).

HEAT INDEX											
ENVIRONMENTAL TEMPERATURE (F°)											
	70°	75°	80°	85°	90°	95°	100°	105°	110°	115°	120°
Relative Humidity	Apparent Temperature *										
0%	64°	69°	73°	78°	83°	87°	91°	95°	99°	103°	107°
10%	65°	70°	75°	80°	85°	90°	95°	100°	105°	111°	116°
20%	66°	72°	77°	82°	87°	93°	99°	105°	112°	120°	
30%	67°	73°	78°	84°	90°	96°	104°	113°	123°		
40%	68°	74°	79°	86°	93°	101°	110°	123°			
50%	69°	75°	81°	88°	96°	107°	120°				
60%	70°	76°	82°	90°	100°	114°					
70%	70°	77°	85°	93°	106°	124°					
80%	71°	78°	86°	97°	113°						
90%	71°	79°	88°	102°	122°						
100%	72°	80°	91°	108°							

* Combined index of heat and humidity... what it “feels like” to the body. Reproduced from the National Weather Service.

Sources where heat and relative humidity information can be obtained:

KSHSAA website (www.kshsaa.org)

National Weather Service website (www.weather.gov)

Various weather websites and mobile applications

Use of a heat index monitor or sling psychrometer

RECOMMENDED MODIFICATIONS TO ATHLETIC PARTICIPATION BASED ON THE HEAT INDEX

HEAT INDEX	HEAT STRESS RISK WITH PHYSICAL ACTIVITY AND/OR PROLONGED EXPOSURE
80°-89°	Fatigue possible with prolonged exposure and/or physical activity. Monitor at-risk athletes closely.
90°- 103°	Heat cramps or heat exhaustion possible <i>Modify practice; take water breaks every 15 to 20 minutes.</i>
103°- 124°	Heat cramps or heat exhaustion likely, heatstroke possible <i>Modify practice, NO HELMET OR SHOULDER PADS, t-shirt and shorts only; frequent (every 15 minutes) water and rest breaks.</i>
>124°	Heatstroke highly likely <i>Recommend NO PRACTICE!</i>

Note: This Heat Index chart is designed to provide general guidelines for assessing the potential severity of heat stress. Individual reactions to heat will vary. It should be remembered that heat illness can occur at lower temperatures than indicated on the chart. In addition, studies indicate that susceptibility to heat disorders tends to increase with age.

These modifications are not specific to football. All sports taking place in hot/humid environments should be prepared to make activity modifications based on the heat index, including indoor sports taking place in un-air-conditioned facilities. Factors such as surface (artificial turf vs. natural grass) need to also be considered as air temperature on artificial turf will typically be higher than on natural grass.