

# Kestrel Heat Index Reference Guide Celsius

## Note: Geat index guidelines make the following assumptions:

- » The person is 5'7", 147 lbs
- » Clothing: long trousers and short-sleeved shirt
- » Internal body temperature: 37°C

## OSHA Heat Index Guidelines

HEAT INDEX	RISK LEVEL	PROTECTIVE MEASURES
Less than 32.8°C	Lower(Caution)	Basic heat safety and planning
32.8 to 39.4°C	Moderate	Drink ~4 cups of water/hour Take breaks as needed
39.4 to 46.1°C	High	Drink water every 15-20 minutes Take frequent breaks Schedule heavy work tasks when the heat index is lower
Greater than 46.1°C	Very hight to extreme	Drink water frequently Reschedule non-essential heavy work if possible Alert workers to heat index for the day and identify precations in place including who to call for medical help

This guidance is available online at [www.osha.gov/SLTC/heatillness/heat\\_index](http://www.osha.gov/SLTC/heatillness/heat_index)

## !! WARNING!!

These Heat Index Reference Guidelines are summarized from well-regarded published papers, policies and position statements relating to preventing heat injury. These guidelines are provided for reference only and do not constitute medical advice.

These Guidelines and your Kestrel Heat Stress product must be employed with care and good judgment. Please remember that certain individuals are more susceptible to exertional heat stress and the Kestrel products are environmental meters, not a medical device. For more information on heat stress injury prevention, visit [heatstress.com](http://heatstress.com)

When in doubt, be conservative, reduce work time, and increase rest and hydration.

## 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 (°C)											
	21.1°	23.9°	26.7°	29.4°	32.2°	35°	37.8°	40.6°	43.3°	46.1°	48.9°
Relative Humidity	Apparent Temperature *										
0%	17.8°	20.5°	22.8°	25.6°	28.3°	30.6°	32.8°	35°	37.2°	39.4°	41.7°
10%	18.3°	21.1°	23.9°	26.7°	29.4°	32.2°	35°	37.8°	40.6°	43.9°	46.7°
20%	18.9°	22.2°	25°	27.8°	30.6°	33.9°	37.2°	40.6°	44.4°	48.9°	
30%	19.4°	22.8°	25.6°	28.9°	32.2°	35.6°	40°	45°	50.6°		
40%	20°	23.3°	26.1°	30°	33.9°	38.7°	43.3°	50.6°			
50%	20.6°	23.9°	27.2°	31.1°	35.6°	41.7°	48.9°				
60%	21.1°	24.4°	27.8°	32.2°	37.8°	45.6°					
70%	21.1°	25°	29.4°	33.9°	41.1°	51.1°					
80%	21.7°	25.6°	30°	36.1°	45°						
90%	21.7°	26.1°	31.1°	38.9°	50°						
100%	22.2°	26.7°	32.8°	42.2°							

\* Combined index of heat and humidity...what it "feels like" to the body. Source: National Oceanic and Atmospheric Administration

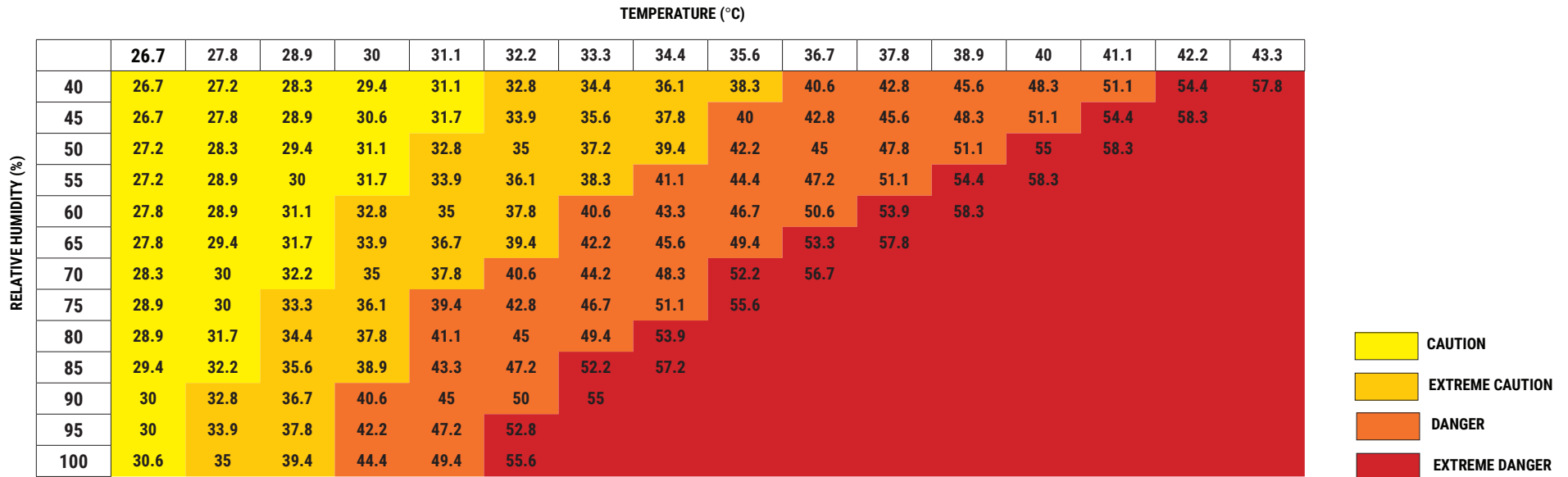
## Recommended Modifications to Athletic Participation Based on the Heat Index

APPARENT TEMPERATURE	HEAT STRESS RISK WITH PHYSICAL ACTIVITY AND/OR PROLONGED EXPOSURE
32.2°-40°	Heat cramps or heat exhaustion possible <b>Modify practice; take water breaks every 15 to 20 minutes.</b>
40.6°-51.1°	Heat cramps or heat exhaustion likely. Heatstroke possible <b>Modify practice. NO HELMET OR SHOULDER PADS, t-shirt and shorts only; frequent (every 15 minutes) water and rest breaks.</b>
51.7°+	Heat stroke highly likely <b>Recommend NO PRACTICE!</b>

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.

Contact your local weather line, the National Wether Service, or [weather.com](http://weather.com) for current temperature and humidity.

# National Oceanic and Atmospheric Administration's (NOAA) National Weather Service Heat Index



**LIKELIHOOD OF HEAT DISORDERS WITH PROLONGED EXPOSURE OR STRENUOUS ACTIVITY**

## Korey Stringer Institute's Recommendations Based on NOAA's Heat Index Chart

ALERT LEVEL	RECOMMENDED ACTIONS
<b>RED- EXTREME DANGER</b>	<ol style="list-style-type: none"> <li>1. Cancel and/or postpone activity to cooler time of the day.</li> </ol>
<b>ORANGE- DANGER</b>	<ol style="list-style-type: none"> <li>1. Maximum of 1 hour of training. Consider postponing activity to cooler time of the day.</li> <li>2. Schedule at least 4 rest breaks of 4 minutes each within the hour.</li> <li>3. Recheck the environmental condition every 30 minutes to monitor for changes.</li> <li>4. Have cooling stations for before, during and after exercise.</li> <li>5. No additional conditioning allowed in the same day.</li> </ol>
<b>GOLD- EXTREME CAUTION</b>	<ol style="list-style-type: none"> <li>1. Maximum of 2 hour of training. Consider postponing activity to cooler time of the day.</li> <li>2. Schedule at least 4 rest breaks of 4 minutes each within each hour, or a 10 minute break every 30 minutes of training.</li> <li>3. Recheck the environmental condition every 30 minutes to monitor for changes.</li> <li>4. Have cooling stations for before, during and after exercise.</li> </ol>
<b>BRIGHT YELLOW- CAUTION</b>	<ol style="list-style-type: none"> <li>1. Optional water breaks every 30 minutes for 10 minutes in duration. Coordinate breaks with assigned contest officials.</li> <li>2. Preparation of cooling modalities (example: ice towels) is recommended.</li> </ol>