



# CHANDLER UNIFIED SCHOOL DISTRICT HEAT ILLNESS AWARENESS AND RECOMMENDATIONS

One of the most important things a coach can do is to educate his/her athletes about the signs and symptoms of dehydration and the proper steps to take in reducing the risk of occurrence.

The **CUSD Heat Index** temperature is calculated using air temperature and the relative humidity or dew point. Follow these steps to determine the heat index:

- Go to <http://weather.yahoo.com> to get the temperature and humidity for the zip code of your practice and/or competition location.
- Then go to <http://www.wpc.ncep.noaa.gov/html/heatindex.shtml> for heat index.
  - Input temperature and humidity.
  - This website will then calculate the heat index.

It is important to understand that both air temperature and relative humidity (RH) play major roles in determining whether or not practice should be rescheduled or modified. The Certified Athletic Trainer and if he/she is not available, the Head Coach at each school, must verify the zone daily by referencing the heat index as defined above.

Zone	Heat Index	Possible heat disorders for people in high risk groups
Caution	80 - 90° F (27- 32°C)	• Fatigue possible with prolonged exposure and/or physical activity
Extreme Caution	90 - 105° F (32 - 41°C)	• Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Danger	105 - 129° F (41 - 54°C)	• Sunstroke, muscle cramps, and/or heat exhaustion likely. • Heatstroke possible with prolonged exposure and/or physical activity.
Extreme Danger	130°F or higher (54°C or higher)	• Heat stroke or sunstroke likely.

*The temperatures in heat index tables, including the one above, generally assume shady conditions and a light wind. Exposure to direct sunlight can increase the heat index up to 15 degrees Fahrenheit. This is only an informational tool; it cannot substitute for experience and professional judgment.*

## PREVENTION

A variety of precautions can help prevent heat-related illness:

- Monitor heat conditions
  - Use Heat Index as noted
- Avoid excessive physical exertion
  - During times of high heat and/or humidity
- Remain in air-conditioned facilities
  - If possible or practical. If not, follow other identified precautions as noted.
- Promote acclimation
  - Adapt gradually to a change in environment
  - Exercise or play moderately during repeated heat exposures
- Regulate and monitor athletic training
  - Gradual transition to full-intensity practice, including full gear

## PRACTICE RECOMMENDATIONS

- **Have water available** and encourage athletes to bring their own. Hydrate at least every 20 minutes.
- **Schedule water breaks** into the practice plan.
- Vary the duration and intensity of activity during high heat periods.

- Provide breaks from outdoor practice or play (in shaded or cooled areas, if possible) to help the body regulate internal temperature and minimize the adverse effects of cumulative heat exposure.
- Encourage the buddy system during outdoor activities.
- Recommend the following steps for students who will be playing or practicing outdoors:
  - Drink fluids before, during and after engaging in outdoor activities
  - Wear lightweight, light-colored, and loose-fitting clothing
  - Maintain adequate rest and proper nutrition
  - Monitor body weight daily. Acute losses (greater than 3 percent of body weight) are usually water losses
  - Eat a balanced diet with adequate potassium; this provides for electrolyte replacement
  - Replace lost salt by adding table salt to food (subject to physician approval)
  - Avoid using salt tablet and potassium supplements, as they can cause undesirable side effects. Focus instead on proper hydration and nutrition

### **HEAT ILLNESS AWARENESS**

The combination of weather and physical exertion can create the potential for heat-related problems. Accordingly, great care must be taken to protect students from the effects of heat illnesses. Heat illness occurs when the body's core temperature rises to a dangerous level for a sustained period. This is particularly likely to occur when: (1) temperatures exceed 86 degrees Fahrenheit or humidity is greater than 80 percent; and (2) no special precautions have been taken. The heat stress problems predominantly seen in athletics are: **Heat-induced dehydration, Heat Cramps, Heat Exhaustion, and Heat Stroke.**

Those individuals supervising athletes should be able to recognize these basic signs and symptoms of dehydration.

<b>HEAT CRAMPS</b>	<b>Heat Cramps Symptoms</b>	<b>Heat Cramp Treatment</b>
	Involuntary, painful cramping of muscles	<ul style="list-style-type: none"> <li>• Rest and cool down</li> <li>• Drink clear juice or sports drink with electrolytes</li> <li>• Gentle range-of-motion stretching and massage on the affected muscle group</li> <li>• If cramps do not subside in an hour – seek medical assistance</li> </ul>
	Usually in the calves or abdomen	
<b>HEAT EXHAUSTION</b>	<b>Heat Exhaustion Symptoms</b>	<b>Heat Exhaustion Treatment</b>
	Headache, dizziness, shortness of breath	<ul style="list-style-type: none"> <li>• Move to shady or air-conditioned location</li> <li>• Lay down with feet and legs elevated slightly</li> <li>• Provide cool water to drink</li> <li>• Excess clothing should be loosened or removed</li> <li>• Spray or sponge with cool water</li> <li>• Fan so as to accelerate cooling</li> <li>• Carefully monitor as heat exhaustion can quickly become heat stroke</li> </ul>
	Goosebumps, nausea, vomiting	
	Heat cramps, heavy sweating	
	Rapid, weak heartbeat	
	Low blood pressure	
	Low-grade fever	
	Fatigue	
Dark-colored urine		
<b>HEAT STROKE</b>	<b>Heat Stroke Symptoms</b>	<b>Heat Stroke Treatment</b>
	Disorientation, dizziness, convulsions	<ul style="list-style-type: none"> <li>• <b>Call 9-1-1</b></li> <li>• Rapid cooling</li> <li>• Move to a shaded and/or cooled environment</li> <li>• Cover with damp sheets or spray with cool water</li> </ul>
	Confusion and/or loss of consciousness	
	Irritability, hot/dry skin	
	Increased body temperature	
	Elevated or lowered blood pressure	
	Rapid and shallow breathing	
Rapid/strong pulse		

Reference: The Trust, Technical Information Bulletin No. 18, June 2016