HEAT RELATED ILLNESS

Ambient air temperature and humidity have a direct effect on the ability for a body to cool itself through the evaporation of sweat. When the air temperature is above 90, and/or the relative humidity is high, the body is at a higher risk to not stay cool.

It is important for all coaches to know that adolescents take longer to acclimatize to the heat than adults. Acclimatization means becoming adapted to the weather or climate. As a result of acclimatization, the athletes core body temperature does not rise as high during exercise, perspiration increases and occurs earlier, the heart rate decreases, and the supply of oxygen to the muscles is improved.

Local managers should check the environment prior to contest to see what the conditions are for participating athletes. All IESA Member schools should have a plan in place for the prevention of heat related illness/injury at outdoor events, practices and poorly ventilated gyms.

SIGNS AND SYMPTOMS OF HEAT RELATED ILLNESS

The following are common signs and symptoms of heat related illness, but are not a complete list.

- Exhaustion
- Headache
- Muscle Cramping/Spasms
- Dizziness
- Nausea, Rapid Pulse, Weakness
- Thirst
- Shallow Breathing
- Heavy or Profuse Sweating
- Loss of consciousness

In the event that an athlete is suffering from one or more of the above symptoms, the athlete should immediately stop activity, be removed from the sun and be referred to appropriate health care professional for a full evaluation. Under no circumstances should an athlete with any of the symptoms above be allowed to return to play the same day.

PREVENTION - The best management of heat related illness is prevention.

- Light colored, loose clothing is suggested during activity in hot weather.
- Adequate fluid supply should be readily available at all times. (Do not wait until thirsty to maintain hydration.)
- Coaches should allow frequent periods of rest and hydration. Additionally water should never be withheld form exercising individuals.
- Encourage athletes to fully hydrate prior to coming to practice. (Ex. 17-20 oz of Water 2-3 hours prior to practice and additional 17-20 oz sport drink 20 min. before.)
- After competition or practice, drink enough fluids to replace any weight loss within two hours of completion of the activity.

- Encourage the use of sunscreen.
- Educate all those involved with the signs and symptoms of heat related illness.
- Overweight athletes are at increased risk for heat illness and should be monitored closely.
- Schedule activities at the coolest time of day and if this can't be done then you are strongly encouraged to postpone or cancel for extreme heat and humidity conditions.

Use the chart below when you have any question on participating or practicing. Cross-reference the relative humidity (top row) with the temperature (1st column) to determine the humiture or apparent temperature chart.

HEAT INDEX CHART

Relative Humidity

TEMP	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
105	100	105	113	123	135	149				
104	98	104	110	120	132	143				
102	97	101	108	117	125	139				
100	95	99	105	110	120	132	144			
98	93	97	101	106	110	125	132			
96	91	95	98	104	108	120	128			
94	89	93	95	100	105	111	122	128		
92	87	90	92	96	100	106	115	122		
90	85	88	90	92	93	100	106	114	122	130
88	82	86	87	89	93	95	100	106	115	125
86	80	84	85	87	90	92	96	100	109	111
84	78	81	83	85	86	89	91	95	99	105
82	77	79	80	81	84	86	89	91	95	96
80	75	77	78	79	81	83	85	86	89	91

Apparent Temperature Chart (R.G. Steadman, 1979)

Information contained in this article from NFHS and NATA articles.