



Baystars Heat Index Guidelines for Youth Baseball and Soccer

HEAT GUIDELINES:

Introduction

Types of Heat Illness, Signs and Symptoms, and Treatments:

Exercise Associated Muscle Cramp: Sudden or sometimes progressively and noticeably evolving, involuntary, painful contractions of skeletal muscle during or after exercise. Proposed contributing factors to exercise associated muscle cramps are as follows: dehydration, electrolyte imbalances, altered neuromuscular control, fatigue or any combination of these factors.

- Signs and Symptoms:
 - Visible cramping in part or all the muscle(group)
 - Localized pain
 - Dehydration
 - Thirst
 - Sweating
 - Fatigue
- Treatment:
 - Rest
 - Passive Stretching
 - Rehydration using a high sodium/carbohydrate beverage.

Heat Syncope:

Heat syncope often occurs in unfit or heat-unacclimatized people who stand for a long period of time in the heat or during sudden changes in posture (moving from sitting to standing) in the heat. This condition is often attributed to dehydration, venous pooling of blood and low blood pressure. Heat syncope often occurs in the first five days of unaccustomed heat exposure, before blood volume expands and cardiovascular adaptations are complete, and in those with heart disease or taking diuretics.

- Signs and Symptoms:
 - Dizziness
 - Tunnel vision
 - Pale or clammy skin



- Decreased pulse rate
- Treatment
 - Move athletes to shaded or cool, indoor areas.
 - Monitor vital signs.
 - Allow athletes to rest lying on their back elevate legs above heart.
 - Cool and rehydrate athlete.

HeatExhaustion:

Heat exhaustion is the inability to effectively exercise in the heat, secondary to a combination of factors, including cardiovascular insufficiency, low blood pressure, energy depletion and central fatigue. This condition is manifested by an elevated core body temperature, usually less than 105 degrees F, and is often associated with a high rate or volume of skin blood flow, heavy sweating, and dehydration. It often occurs in hot or humid (or both) conditions, but it can also occur in normal environmental conditions with intense physical activity. Heat exhaustion occurs most often in individuals who are heat-unacclimatized or dehydrated.

- Signs and Symptoms:
 - Excessive fatigue
 - Syncope
 - Collapse
 - Headache
 - Dizziness
 - Confusion
 - Vomiting
 - Nausea
 - Lightheadedness
 - Low blood pressure
- Treatment:
 - Remove equipment and clothing to facilitate cooling.
 - Move to a cool, shaded, or indoor area.
 - Cool with cold towels and fans as needed.
 - Monitor vital signs.
 - Have athlete rest lying on their back and elevate legs above their heart.
 - Activate EMS if the athlete does not show signs of improvement within 30minutes.



Exertional Heat Stroke:

Exertional heat stroke is the most severe heat illness and is characterized by neurological impairment combined with a core body temperature above 105 degrees. This condition is a product of the body's heat production due to exercise and or inhibited heat loss. While exertional heat illness most often occurs in hot, humid weather, it can also present due to intense physical activity in the absence of extreme environmental conditions. The risks of morbidity and mortality increase the longer that athletes body temperature remains elevated above 105 degrees, while risk of morbidity and mortality are greatly reduced if body temperature is lowered promptly after onset.

- Sign sand Symptoms
 - Central nervous system dysfunction
 - Corebodytemperatureabove105degrees
 - Disorientation
 - Confusion
 - Dizziness
 - Loss of balance
 - Staggering
 - Irritability
 - Irrational or unusual behavior
 - Apathy
 - Aggressiveness
 - Hysteria
 - Delirium
 - Collapse
 - Loss of consciousness
 - Coma
 - Hot, sweaty skin
 - Hot, dry skin
 - Dehydration
 - Hypotension (low blood pressure)
 - Hyperventilation ○ Treatment
 - Medical emergency- Call 911
 - Remove excess clothing and equipment.



- Cold water immersion until core body temperature reaches 102 degrees or athlete begins to shiver.



Fluid Replacement Recommendations:

- Evaporation of sweat is the primary source of heat dissipation during exercise. Athletes whose sweat loss exceeds rehydration during activity become dehydrated. Dehydration of one to two percent of body weight begins to negatively impact physiological function and athletic performance while dehydration of three percent or greater of body weight puts an athlete at risk for exertional heat illnesses.
- Signs and symptoms of dehydration:
 - Thirst
 - Irritability
 - General discomfort
 - Headache
 - Weakness
 - Dizziness
 - Cramps
 - Chills
 - Vomiting
 - Nausea
 - Decreased performance

Prevention and Treatment Methods:

Athletes are strongly encouraged to drink water before, during and after any exercise.

Wet Bulb Globe Temperature (WBGT) will be measured on the athletic fields with a Wet Bulb Globe Thermometer. All final decisions regarding temperature readings are at the discretion of the Club Safety Officer (or coach during the off- season if the Club Safety officer is not unavailable). Practice guidelines will follow in accordance with the rest breaks, and activity and equipment guidelines provided.

If WBGT is unavailable, Heat Index will be used. Heat index will be determined by using weather apps (ex. Weather Bug, AccuWeather, etc.) for temperature and humidity measurements and the chart below, or the OSHA Heat Index app. All final decisions regarding temperature readings are at the discretion of the Club Safety Officer (or coach during the off- season if the Club Safety officer is not unavailable). Practice guidelines will follow in accordance with the rest breaks, and activity and equipment guidelines provided.

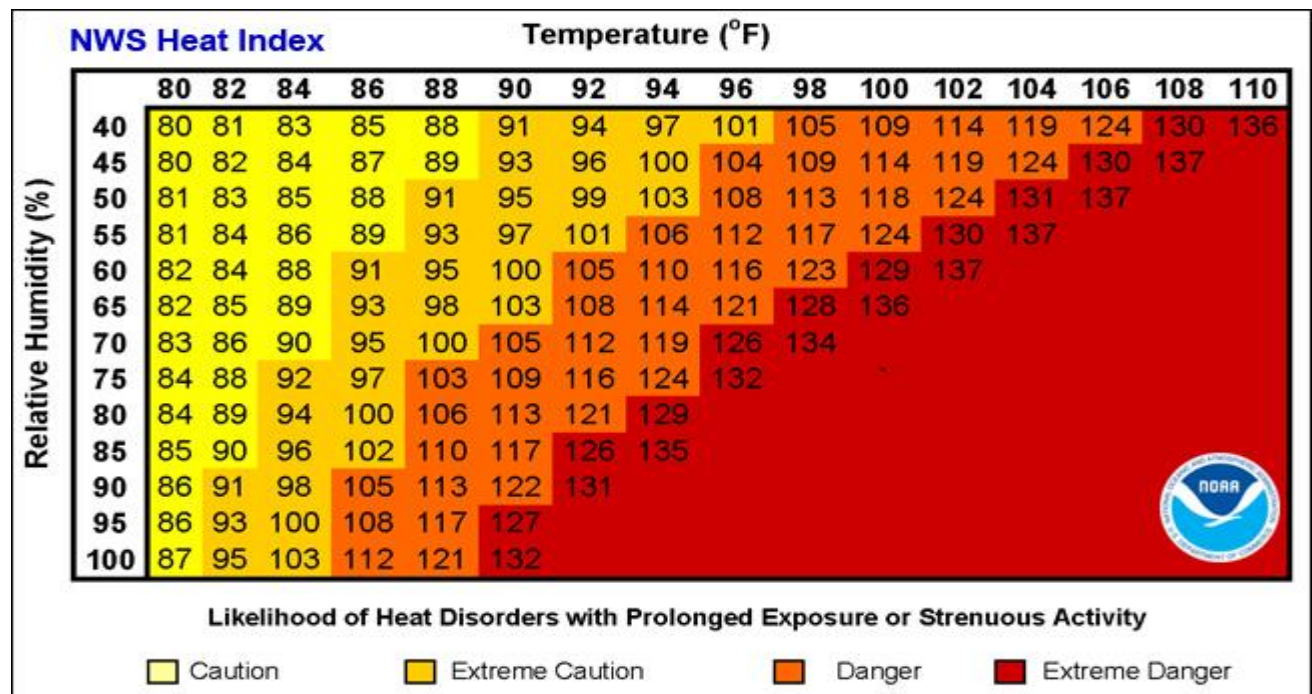


Soccer Guidelines:

Soccer Wet Bulb Chart:

ALERT LEVEL	WBGT	EVENT CONDITIONS	RECOMMENDED WORK TO REST RATIOS (ACTIONS & BREAKS)
BLACK	92°	Extreme Conditions	No Outdoor Training, delay training until cooler, or Cancel Training
RED	90.1-91.9°	High Risk for Heat Related Illness	Maximum of 1 hours of training with 5 by 4-minute breaks within the hour, No additional conditioning allowed
ORANGE	87.1-90.0°	Moderate Risk for Heat Related Illness	Maximum of 2 hours of training with 5 by 4-minute breaks each hour, OR a 10-minute break every 30 minutes of training
YELLOW	82.2-87.0°	Less than ideal Conditions	3 Separate 5-minute breaks each hour, OR a 12-minute break every 40 minutes of training.
GREEN	82.1°	Good Conditions	Normal Activities. 3 Separate 3 minutes breaks each hour of training, OR a 10-minute break every 40 minutes.

Heat Index Guidelines for Soccer:





Heat Index	Restrictions
105° F -	No outdoor activity
95° F -104° F	Maximum of 1 hours of training with 5 by 4-minute breaks within the hour, No additional conditioning allowed
90° F - 94° F	Maximum of 2 hours of training with 5 by 4-minute breaks each hour, OR a 10-minute break every 30 minutes of training
89° and below	Unrestricted access to water during all practices and competitions. Breaks every 20 to 30 minutes.

Baseball Guidelines:

The following heat index policy guidelines have been established to ensure the safety and welfare of all baseball players, coaches, and umpires involved.

HEAT INDEX ACTIONS

Heat Index	Restrictions
115° F -	All activities will be suspended until the heat index is below 115.
105° F -114° F	Games will be shortened in duration to allow a more extended break between games for all involved; Alter uniforms where feasible.
90° F - 104° F	Use extreme caution; Ensure water breaks are allowed as needed; Ensure that all individuals drink fluids and that uniforms are modified to ensure the coolest level available.
80° F - 89° F	Use caution; Monitor athletes carefully for necessary action.

If you have any questions, please contact your team manager or club administrator.