

## NEW JERSEY STATE INTERSCHOLASTIC ATHLETIC ASSOCIATION

1161 Route 130 North, Robbinsville, NJ 08691

Phone 609-259-2776 Fax 609-259-3047

### Cold Water Immersion Tub Policy

All schools participating in interscholastic athletics must have a comprehensive, detailed Emergency Action Plan (EAP), including heat injury. When treating a potential Exertional Heat Stroke (EHS), schools must be properly *prepared and equipped* to initiate Cold Water Immersion (CWI) or other approved cooling technique. Cooling techniques must be implemented immediately, and concurrently EMS should be contacted. This must be followed during all summer conditioning, pre-season practices/contests on school grounds, or when a coach, paid or otherwise, is present. This includes the 1<sup>st</sup> 21 days of fall practice, and any day the temperature is greater than 80°F WBGT.

WBGT READING	Flag	COLD WATER IMMERSION TUB GUIDELINES
Under 80.0°F	Green	Mandatory alternative cooling measures of a cooler with ice and towels or a tarp (taco/burrito method) must be available at the practice, game and event site.
80.0 F – 85.0°F	Yellow	It is required a 150 gallon cold water immersion tub or a tarp (taco/burrito method) must be filled with water temperature of less than 60°F and accessible for cooling within 5-10 minutes of the practice/contest site. Remove external clothing/equipment prior to cooling or immediately after entering tub. Aggressively stir water during cooling process.
85.1 F – 88.0°F	Orange	It is required a 150 gallon cold water immersion tub or a tarp (taco/burrito method) must be filled with water temperature of less than 60°F and accessible for cooling within 5-10 minutes of the practice/contest site. Remove external clothing/equipment prior to cooling or immediately after entering tub. Aggressively stir water during cooling process.
88.1 F – 90°F	Red	It is required a 150 gallon cold water immersion tub or a tarp (taco/burrito method) must be filled with water temperature of less than 60°F and accessible for cooling within 5-10 minutes of the practice/contest site. Remove external clothing/equipment prior to cooling or immediately after entering tub. Aggressively stir water during cooling process.
Over 90°F	Black	<b>NO OUTDOOR WORKOUTS.</b> Delay practice until a cooler WBGT level is reached. If the WBGT rises to this level <b>during</b> practice, it is required a 150 gallon cold water immersion tub (or a tarp (taco/burrito method) must be filled with water temperature of less than 60°F and accessible for cooling within 5-10 minutes of the practice/contest site. Remove external clothing/equipment prior to cooling or immediately after entering tub. Aggressively stir water during cooling process.

#### TREATMENT OF EXERTIONAL HEAT STROKE

If the athletic trainer/medical staff is onsite, utilize the principle of **Cool First, Transport Second**. When cooling, use CWI or other approved cooling technique, until core temperature is at 103°F. If the athletic trainer/medical staff is not onsite, cool immediately until the athlete starts to shiver, or for a minimum of 20 minutes based upon the known cooling rate of 1 degree per 3 minutes. If athletic trainer/medical staff **is not** present, EMS assumes control of the EHS patient upon arrival and continues cooling for the minimum of 20 minutes or until rectal temperature is obtained.

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## Heat Participation Policy Guidelines

Schools must follow this best practice policy when conducting outdoor practices and games in all sports. The policy follows modified guidelines of the American College of Sports Medicine, and is specific to New Jersey, in regard to:

1. The scheduling of practices during times of various Wet Bulb Globe Temperature (WBGT) levels
2. The ratio of workout time to time allotted for rest and hydration during times of various WBGT levels
3. The WBGT levels which will result in practices and contests being modified or terminated.

An instrument scientifically approved to measure WBGT must be utilized at each practice and game. WBGT readings must be taken on the practice and game site a minimum of every hour, beginning 30 minutes before the beginning of practice and game. All readings must be recorded or data logged (e.g. written or electronic form). In the event that a modification or cancellation was required, documentation using the WBGT *NJSIAA Heat Participation Policy Record Chart* must be completed.

WBGT READING	Flag	Risk for Heat Illness	ACTIVITY GUIDELINES AND REST BREAK GUIDELINES
Under 80.0°F	Green	Very Low	Normal activities – Provide at least three separate rest breaks each hour of minimum duration of 3 minutes each during workout.
80.0 F – 85.0°F	Yellow	Low	Use discretion for intense or prolonged exercise; watch at-risk players carefully; Provide at least three separate rest breaks each hour with a minimum duration of 4 minutes each.
85.1 F – 88.0°F	Orange	Moderate	Maximum practice time is 2 hours, <u>For Football, Lacrosse and Field Hockey</u> : All helmets and shoulder pads must be removed for practice and conditioning activities. If the WBGT rises to this level <b>during</b> practice, football players may continue to work out wearing football pants without changing into shorts. <u>For All Sports</u> : provide at least four separate rest breaks each hour with a minimum duration of 4 minutes each.
88.1 F – 90°F	Red	High	Maximum length of practice is 1 hour. <u>For Football, Lacrosse and Field Hockey</u> : No protective equipment may be worn during practice and there must be no conditioning activities. <u>For All Sports</u> : there must be no conditioning and there must be 20 minutes of rest breaks distributed throughout the hour of practice.
Over 90°F	Black	Very High	<b>NO OUTDOOR WORKOUTS.</b> Delay practice until a cooler WBGT level is reached.





# BEAT THE HEAT

Summer's high temperatures put student athletes at increased risk of heat illness. There are several types of heat illness. They range in severity, from heat cramps and heat exhaustion, which are common but not severe, to heat stroke, which can be deadly. Although heat illnesses can be fatal, death is preventable if they're quickly recognized and properly treated.

## DEHYDRATION AND HEAT ILLNESSES



As a rule-of-thumb, most athletes should consume 200 to 300 milliliters of fluid every

**15 MINUTES**  
OF EXERCISE.

It takes only **30 MINUTES** for cell damage to occur with a core body temperature of 105 degrees.



Currently, 13 states have heat-acclimatization policies, for secondary school athletics with New Jersey being the first.



Exertional heat stroke is one of the top three killers of athletes and soldiers in training.

- From 2010-15, 20 athletic heat stroke fatalities were reported.
- It takes seven to 14 days for a body to adapt to exercising in the heat.
- Dehydration at levels of 3 to 4 percent body mass loss can reduce muscle strength by an estimated 2 percent.

### SAFETY TIPS

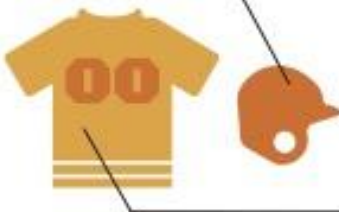


Have sports drinks on hand for workout sessions lasting longer than an hour.

Keep beverages cold – cold beverages are consumed 50 percent more than warm beverages.

Hydrate before, during and after activity.

Remove unnecessary equipment, such as helmets and padding, when environmental conditions become extreme.



Clothing worn by athletes should be light colored, lightweight and protect against the sun.

- For the first week or so, hold shorter practices with lighter equipment so players can acclimate to the heat.
- Follow a work-to-rest ratio, such as 10-minute breaks after 40 minutes of exercise.
- Get an accurate measurement of heat stress using a wet-bulb globe temperature, which accounts for ambient temperature, relative humidity and radiation from the sun.
- If someone is suffering from exertional heat stroke, remember to cool first and transport second.
- Have large cold tubs ready before all practices and games in case cold water immersion is needed to treat exertional heat stroke.

## SIGNS OF MINOR HEAT ILLNESS



Dizziness

Cramps, muscular tightening and spasms



Lightheadedness, when not associated with other symptoms

### EARLY WARNING SIGNS OF EXERTIONAL HEAT STROKE

Headache, dizziness, confusion and disorientation

Excessive sweating and/or flushing

Fatigue

Nausea and/or vomiting

Chills and/or goose bumps



## SIGNS OF EXERTIONAL HEAT STROKE



Core body temperature of more than 105 degrees



Signs of nervous system dysfunction, such as confusion, aggression and loss of consciousness



Increased heart rate



Low blood pressure

Seizures

Rapid breathing



Sources: Korey Stringer Institute, American Medical Society for Sports Medicine, NATA.