

# Cold Water Immersion Guidelines

In the event of a potential Exertional Heat Stroke (EHS), each school participating in interscholastic sports must be properly prepared and equipped to initiate Cold Water Immersion (CWI) or equivalent whole body cooling techniques and EMS concurrently contacted, noting that the focus is to cool first and then transport. The water should be aggressively stirred during the cooling process. The best practices should be carried out by a license athletic trainer, designated healthcare provider, or EMS provider. The cooling modality must be set up at all warm weather practice, and should be readily available if the need arises.

## Cold Water Immersion

When treating a potential EHS, schools shall be properly prepared and equipped to initiate CWI or other best practice cooling technique. Cooling techniques must be implemented immediately, and EMS should be contacted concurrently. This must be followed during all sanctioned events when the temperature is at the WBGT is a Yellow flag alert level or higher.

### WBGT READING Flag

Green
Yellow
Orange
Red
Black

### COLD WATER IMMERSION GUIDELINES

**Green:** Access to alternative cooling measures (cooler with ice, water, and towels, or tarp) are readily available at the practice and competition sites.

**Yellow through Black:** A cold-water immersion tub of approximately 150 gallons shall be partially filled with water or cold water immersion bag/ tarp (taco/burrito method) for cooling is accessible within 5-10 minutes of the practice/competition site. Ice shall also be readily available. Remove necessary external clothing/equipment prior to cooling. Aggressively stir water during cooling process.

### TREATMENT OF EXERTIONAL HEAT STROKE

- If an athletic trainer/medical provider is onsite, utilize the principle of Cool First, Transport Second.
- When cooling, use CWI or other best practice cooling method, until a core temperature at or below 102F is reached.
- If the athletic trainer/medical provider is not present or not onsite and EHS is suspected, cool immediately for a minimum of 20 minutes based upon the average estimated cooling rate of 1 degree per 3 minutes.
- Continue cooling until either an athletic trainer or other appropriate medical providers, EMS assumes control of the EHS patient and determines if additional cooling is needed based on core temperature (102F).
- Rectal thermometry is the gold standard for monitoring core body temperature.

## Preferred Methods for Cooling

1. Cold Water Immersion Tub\*\*
2. Cold Water Immersion Bag
  - a. A cold water immersion bag is a method which uses a combination of ice and cold water are added to an athlete once they have been placed in a cold water immersion bag and seal the bag to reduce core body temperature.
3. Taco/ Burrito Method
  - a. Tarp Assisted Cooling Oscillation (TACO) is a method in which a combination of ice and cold water are added to an athlete once they have been placed on a tarp with the edges held up by clinicians to create a physical “taco” for the patient to be encased inside.
  - b. <https://www.youtube.com/watch?v=vonrI4IQOFM&t=38s>