

# Pottsgrove School District



## Heat and Cold Safety Emergency Action Plan For Athletics

High School

1345 Kauffman Road  
Pottstown, PA 19464  
Phone: (610)-326-5105

Middle School

1351 N. Hanover Street  
Pottstown, PA 19464  
Phone: (610)-326-8243

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## **Purpose of the Emergency Action Plan: Heat and Cold Safety**

The northeast United States is exposed to both extremes of heat and cold throughout the year. The purpose of this plan is to create a procedure to follow in the case of extreme cases of heat and cold weather. This plan also serves as an educational guide to increase preparedness to help prevent emergencies due to heat and cold stress.

## **Emergency Equipment**

### *Emergency Equipment for Heat Emergencies*

- Ice towels
- Cold whirlpool

### *Emergency Equipment for Cold Emergencies*

- Room temperature to warm water
- Heat packs
- Warm whirlpool

## **Emergency Communication**

- If the Certified Athletic Trainer is onsite, the Coach will call the Certified Athletic Trainer. It will be the Certified Athletic Trainer's responsibility to take care of the athlete.
- If it is an emergency, heat stroke or hypothermia is suspected, the Coach will activate EMS first.

### **Activating EMS**

- EMS should be activated if any loss of consciousness, deteriorating symptoms, discoloration of the skin or suspected signs of heat stroke are suspected.
- If heat stroke is suspected, the athlete must be cooled first, transport second.

\*Dial **8-911** if calling from a school landline or **911** if calling from a cell phone\*

### **When Calling EMS Provide:**

- Name, address of location, telephone number of caller
- Number of injured student athletes and the condition of the athlete(s)
- First aid provided thus far
- Specific directions to the emergency scene
- Other asked information

\*\*\*Follow directions from the appropriate high school or middle school Emergency Action Plan.

## Athletic Department Contact Info

### **Athletic Trainers**

(Cell phone numbers given to AD and coaches)

**High School:** Jack Thomas (610)-326-5105 ext. 7405

### **Athletic Office**

**Athletic Director:** Steve Anspach (610)-326-5105 ext. 7478

**Administrative Assistant:** Dian Winner (610)-326-5105 ext. 7374

### **High School Administrators:**

**Principal:** Dr. Jeff Smith (610)-326-5105 ext. 7385

**Assistant Principal:** Chris Stein (610)-326-5105 ext. 7384

### **Middle School Administrators:**

**Principal:** Dr. Felicia Gonzalez (610)-326-8243 ext. 2051

**Assistant Principal:** Steve Palladino (610)-326-8243 ext. 2050

## Heat Guidelines

The Certified Athletic Trainer or Athletic Director will monitor the heat index and wet bulb temperature. The Certified Athletic Trainer and/or Athletic Director reserve the right to monitor and modify practice schedules due to heat.

Heat Index – The heat index also known as the apparent temperature, is what the temperature feels like to the human body when relative humidity is combined with the air temperature.

Wet Bulb Globe Temperature (WBGT) – The Wet Bulb Globe Temperature is a measure of heat stress in direct sunlight, which is based on temperature, humidity, wind speed, sun angle, and cloud cover. This differs from the heat index, which is based only on temperature and humidity and is calculated in shady areas.

The following recommendations should be taken into consideration in monitoring and modifying practice schedules based on the heat index/wet bulb temperature:

<b>GUIDANCE FOR HIGH SCHOOL ATHLETICS</b>	
<b>WBGT READING</b>	<b>Activity Guidelines and Rest Break Guidelines</b>
Under 82.0	Normal activities – Provide at least 3 separate rest breaks during each hour of minimum duration of three minutes each during workout
82.0 – 86.9	Use discretion for intense or prolonged exercise; watch at risk players carefully. Provide at least 3 separate rest breaks each hour of a minimum of our minutes duration each
87.0 – 89.9	Maximum practice time is two hours. For Football: players are restricted to helmet, shoulder pads, and shorts during practice. All protective equipment must be removed for conditioning activities. For all sports: Provide at least four separate rest breaks each hour of minimum of four minutes each.
90.0 – 92.0	Maximum length of practice is one hour. No protective equipment may be worn during practice and there may be no conditioning activities. There must be 20- minutes of rest breaks provided during the one hour of practice.
Over 92.1	No outdoor workouts. Cancel exercise; delay practices until a lower WBGT reading occurs.

## **Hydration**

Athletes should replenish 150 percent of fluids lost during exercise to restore normal hydration levels (euhydration). Diet, salt consumption, and other factors should be considered when rehydrating. When exercising for long durations, athletes should incorporate sports drinks containing electrolytes into their rehydrate routine. If athletes do not know how many liters of fluid they lost during exercise, drinking to thirst is a safe plan to follow to prevent overdrinking.<sup>2</sup>

## **Clothing and Sunscreen**

Thin, lightweight and lightly colored clothing (e.g. short sleeves, shorts, and light socks) should be worn in heat, especially when acclimating to the heat.<sup>1</sup>

All athletes should wear sunscreen to prevent damaging effects from the sun's ultraviolet radiation. Sunscreen should be applied hourly. Athletes at risk for skin cancer (those with fair complexion, light hair, blue eyes, and easily burnt skin) should wear at least an SPF 30 sunscreen.<sup>1</sup>

## **Heat Acclimation**

A gradual heat acclimatization is critical to preventing heat illness.<sup>1</sup> Athletes should be monitored during this process for early signs and symptoms of heat illness. Pottsgrove High School and Middle School adhere to the latest PIAA heat acclimatization recommendations.

All football athletes in grades 9-12 must complete a three to five consecutive day heat acclimatization period. This acclimatization period typically begins the week immediately before the two week preseason. Practice times and equipment will be modified during this period. Football athletes are only permitted to wear helmets and shoulder pads during heat acclimatization. For the football athletes completing their heat acclimatization the week before the two week preseason, practices will be limited to no longer than 3 hours in length with no less than a two hour break in between. Practices days one, three, and five are limited to five hours in length. Practices days two and four are limited to three hours in length.<sup>3</sup>

All football athletes in grades 7-8 must complete three consecutive days of heat acclimation. Equipment and practice modifications are implemented. Equipment modifications include only wearing a helmet, shoulder pads, and football shoes. Practices for the first three days of heat acclimatization must be non-contact. No middle school athletes can attend the high school heat acclimatization practices.<sup>3</sup>

## Heat Illness Protocol

If signs and symptoms of heat illness are observed and/or reported the athlete should immediately be removed from the practice/scrimmage/game.

- Certified Athletic Trainer onsite:
  - Call the certified athletic trainer onsite immediately.
  - If signs and symptoms of heat stroke are suspected call **911** or **8-911** before calling for the athletic trainer. In incidents of heat stroke, it is imperative the athlete is cooled first and transported second.
  - The athlete should be moved to a cool area (e.g. indoors, shade).
  - Cold towels, indoors, and cold whirlpools are options of cooling.
- No Certified Athletic Trainer onsite
  - Move the athlete to a cool location.
  - If any signs and symptoms of heat stroke are present call **911** or **8-911** from a school telephone. Immediately begin to cool the athlete. It is imperative the athlete is cooled first and transported second. The temperature of the athlete should be monitored.
  - If applicable, have the athlete drink water.



## Cold Guidelines

The Certified Athletic Trainer and/or the Athletic Director will monitor the cold by monitoring the wind chill. The Certified Athletic Trainer and/or Athletic Director reserve the right to monitor and modify practice schedules due to the cold.

The following recommendations should be taken into consideration in monitoring and modifying practice schedules: <sup>7, 8, 9</sup>

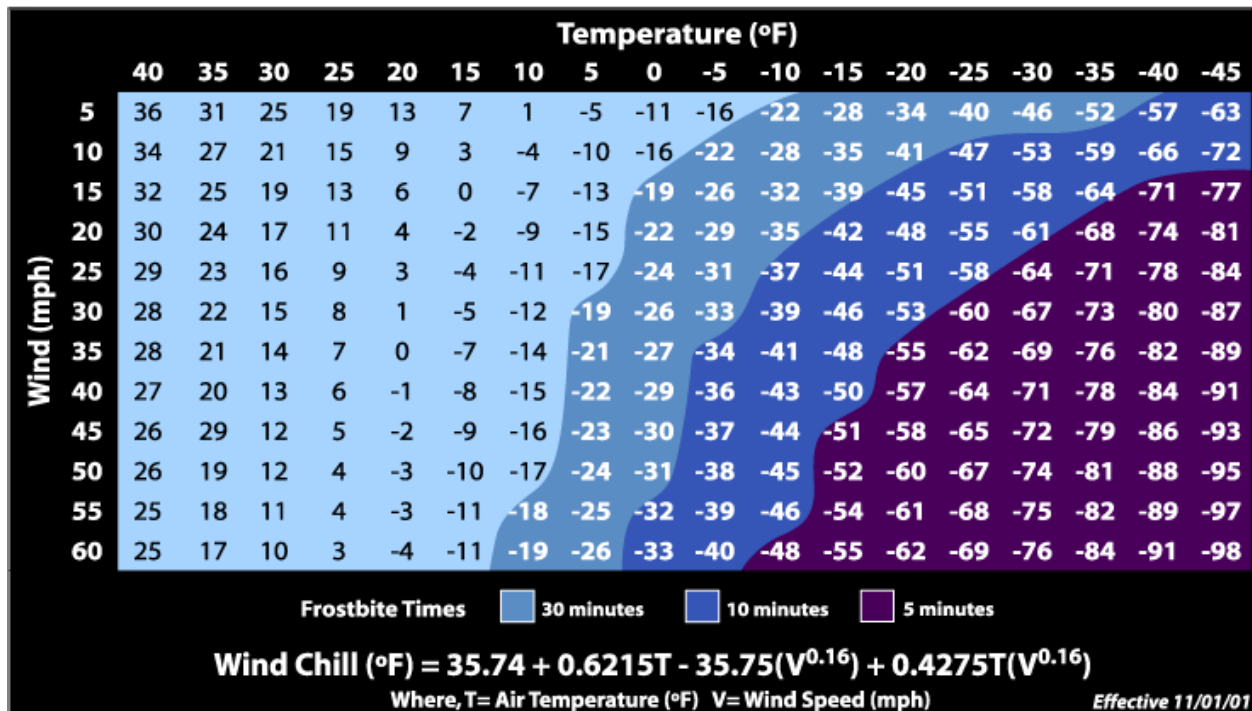
<b>Wind Chill Temperature</b>	<b>Practice Length (Outside Practice /Inside Warm-Up)</b>	<b>Recommendations</b>
> 30° F	No restrictions	Wear appropriate clothing for the weather.
30.0° F – 25.1° F	45 minutes / 10 minutes	Wear appropriate clothing. Be aware of the potential for cold injury.
25.0° F – 15.1° F	30 minutes / 10 minutes	Cover as much of the exposed skin as practical. Wear additional clothing/layers.
15.0° F – 5.1° F	15 minutes / 10 minutes	Consider modifying activity to limit cold exposure.
≤ 5° F	<b>No outside practices are permitted.</b>	

You can use this graph to help determine wind chill or the following link: <sup>7,8</sup>

[https://www.weather.gov/epz/wxcalc\\_windchill](https://www.weather.gov/epz/wxcalc_windchill)



## Wind Chill Chart



### Prevention Methods for Cold Stress

When exercising in the cold, athletes should wear several thin layers of clothing. Athletes should cover their head, neck, and hands when exercising in the cold. Athletes should try to warm the air they breathe with a scarf covering their nose. Athletes should try to stay as dry as possible when exercising in the cold. Polypropylene, wool, or other fabrics are good choices of fabric to help wick moisture away and keep the body cool. Try to stay away from cotton.

Athletes should warm-up thoroughly and keep warm until practice/competition. Athletes should hydrate to help regulate body heat. Hydrating in the cold is just as important as hydrating in the heat. Athletes should never train alone.<sup>6</sup>

## Cold Stress Protocol

If the Certified Athletic Trainer is onsite:

- Check for signs and symptoms of hypothermia. If CNS symptoms are present or the patient is unconscious act as a first responder if certified in: First aid, CPR, and AED if needed.
  - o Call **911** or **8-911** from a school telephone.
  - o Designate someone to call the Certified Athletic Trainer after acting as a first responder
- If no concerning hypothermia symptoms are present call for the athletic trainer.

If there is no Certified Athletic Trainer onsite:

- Check for signs and symptoms of hypothermia. If CNS symptoms are present or the patient is unconscious act as a first responder if certified in: First aid, CPR, and AED if needed. Call **911** or **8-911** from a school telephone.
- If the athlete is conscious and not displaying concerning signs and symptoms of hypothermia, move the athlete to a warm area. If clothing is wet or damp remove the appropriate layers. Allow the athlete to use heat packs or immerse the area in warm 100-110° F water. If appropriate, have the athlete drink hot drinks.

## Resources:

1. Prentice, W. E. (2011). Principles of athletic training: a competency-based approach (14th ed.). New York, NY: McGraw-Hill Education.
2. McDermott, B. P., Anderson, S. A., Armstrong, L. E., Casa, D. J., Cheuvront, S. N., Cooper, L., . . . Roberts, W. O. (2017). National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active. *Journal of Athletic Training*, 52(9), 877-895. doi:10.4085/1062-6050-52.9.02
3. Zimmerman, J., & D. (2017). Football Pre-Season Heat-Acclimatization Guidelines. Retrieved from [http://www.piaa.org/assets/web/documents/2017\\_Heat\\_Acclimatization\\_Guide.pdf](http://www.piaa.org/assets/web/documents/2017_Heat_Acclimatization_Guide.pdf)
4. Casa, D. J., DeMartini, J. K., Bergeron, M. F., Csillan, D., Eichner, E. R., Lopez, R. M., . . . Yeargin, S. W. (2015). National Athletic Trainers' Association Position Statement: Exertional Heat Illnesses. *Journal of Athletic Training*, 50(9), 986-1000. doi:10.4085/1062-6050-50.9.07
5. Anderson, S., Eichner, E. R., et. Al. (2002). Consensus Statement: Sickle Cell Trait and the Athlete. Retrieved November 1, 2017, from <https://www.nata.org/sites/default/files/sickle-cell-trait-and-the-athlete.pdf>
6. P. (2017, September 5). 2017-2018 Sports Medicine Guidelines. Retrieved November 3, 2017, from <http://www.piaa.org/assets/web/documents/Handbook%20-%20Section%20VI%20-%20Sports%20Medicine.PDF>
7. Fijalkowski, H., & Parmer, K. (2017). Cold Weather Guidelines. Retrieved November 3, 2017, from <http://www.millersville.edu/athletictraining/cold-weather.php>
8. National Weather Service: National Oceanic and Atmospheric Administration (n.d.). Wind Chill Calculator. Retrieved November 3, 2017, from [https://www.weather.gov/epz/wxcalc\\_windchill](https://www.weather.gov/epz/wxcalc_windchill)
9. Cappaert, T. A., Stone, J. A., Castellani, J. W., Krause, B. A., Smith, D., & Stephens, B. A. (2008). National Athletic Trainers' Association Position Statement: Environmental Cold Injuries. *Journal of Athletic Training*, 43(6), 640-658. Retrieved November 3, 2017, from <http://natajournals.org/doi/pdf/10.4085/1062-6050-43.6.640?code=nata-site>