

Marion County High School External Heat Illness Emergency Action Plan

Preparation

1. Emergency Action Plan (EAP)
2. Equipment
 - a. Cold immersion tub/trough: filled with water with ice nearby
 - b. Water supply
 - c. Ice: in ice-chests next to tub
 - d. Ice chest with towels: 6 total towels-3 in/3 out
 - e. Temperature measuring device
 - i. Wet Bulb Globe Thermometer (WBGT)
 - ii. Heat Index Chart
 - iii. Local weather information
 - f. Shaded Area: "cool zone"

Prevention

1. Acclimatization
 - a. Days 1-4: once daily practice not to exceed 3 hours
 - b. Day 5: can begin full pads
 - c. Day 5-14: two-a-day practices must be followed by single practice day or rest day
 - d. Two-a-day practices must be separated by a minimum of 3 hours in a cool environment
 - e. Each practice session during two-a-days must not exceed 3 hours and total practice time cannot exceed 5 hours
2. Hydration
 - a. Weigh before and after each practice
 - b. Replace 16 ounces fluid for each pound of weight lost
 - c. Urine should be clear before practice and at night before sleep
 - d. Drink 8-10 ounces every 15-20 minutes of exercise
 - e. Fluids with carbohydrates and salt are best
 - f. Absolutely no energy drinks
3. Work-to-rest ratio
 - a. Use the Heat Index cards to adjust work
 - b. Adjust practice time to rest time based on heat stress: 40 minutes of practice to 10 minutes of rest
 - c. Rest should be in "cool zone" with equipment off
 - d. Adjust equipment requirements as heat stress increases
 - e. Cancel Practice in extreme conditions

4. Education

- a. Familiarize with signs and symptoms of exertional heat illness
- b. Mandatory educational course on exertional heat illness from NFHS

5. Management of Suspected Heat Related Illness

Signs and symptoms of a possible heat illness are listed below. If you observe an athlete experiencing even one of these symptoms, the athlete **MUST immediately be removed from all participation**. If the ATC/First Responder is available, contact him/her immediately so an evaluation can be performed. If the ATC/First Responder is not accessible provide the following care. **Please note that if the athlete is unconscious or has an altered level of consciousness 911 should be called immediately.**

Signs and Symptoms of Heat Problems

- a. Early Stages (sometimes called heat exhaustion)
 - i. Cool, moist, pale, ashen, or flushed skin
 - ii. Headache, nausea, dizziness
 - iii. Weakness, exhaustion
 - iv. Heavy sweating
- b. Late Stages (sometimes called heat stroke)
 - i. Red, hot, dry skin
 - ii. Changes in level of consciousness
 - iii. Vomiting

6. Treatment

The athletic trainer should be contacted immediately when an athlete exhibits signs and symptoms of heat illness. The following care is recommended for an athlete exhibiting signs and symptoms of heat illness.

1. Cessation of activity
2. Move the athlete to a cool place
3. Rectal temperature monitoring: inserted as soon as EHI suspected
4. Loosen tight clothing
5. Remove perspiration-soaked clothing
6. Immerse athlete in ice tub, if not available in cool or tepid water. If immersion is not possible:
 - a. Use ice-water towels covering entire body and rotate new towels every 2-3 minutes
 - b. Place ice packs at head, neck, axillae and groin
 - c. Bathe face and trunk with iced or tepid water
 - d. Fan athlete to help cooling process
7. If conscious, give cool water to drink
8. "Cool first-Transport second" policy: do not remove athletes until rectal temp <102°F
9. Remove from cooling ONLY when rectal temperature <102°

If at any time the athlete exhibits the following signs and symptoms:

- refuses water
- vomits
- skin is unusually red, hot, and dry for the weather conditions (dry clothes also)
- starts to lose consciousness
 1. Send someone to call EMS personnel (Emergency Action Plan)
 2. Continue to cool athlete
 3. Continue to monitor temperature, pulse, and breathing
 4. "Cool first-Transport second" policy: do not remove athletes until rectal temp <102°F
 5. Remove from cooling when rectal temperature <102°

The Athletic Trainer or Head Coach of ALL outdoor sports should complete the "Kentucky High School Athletic Association Heat Measurement and Record form daily and before all practices and competitions. Adjustment/Cancellation of activities should be determined based on the heat index calculation chart and guidelines provided by the KHSAA.

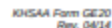
Relative Humidity at Site

100	70	80	90	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20				
99	69	79	89	91	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19				
98	68	78	88	91	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19				
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35	5	15	25	49	59	69	79	89	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
34	4	14	24	49	59	69	79	89	01	02	03	04	05	0													

Heat Index Calculation and Chart

ACTIVITY CESSATION CHART

UNDER 95 DEGREES HEAT INDEX OR WBGT 85.9 AND BELOW a) All sports (1) Water should always be available and athletes be able to take in as much water as they desire; (2) Optional water breaks every 30 minutes for 10 minutes in duration to allow hydration as a group; (3) Have towels with ice for cooling of athletes as needed; (4) Watch/monitor athletes carefully for necessary action; and (5) Re-check temperature and humidity every 30 minutes if temperature rises in order to monitor for increased Heat Index.
95 TO 99 DEGREE HEAT INDEX OR DECREASES TO 90 DEGREES HEAT INDEX OR WBGT 87.8 TO 91.1 IN ALL SPORTS a) All sports (1) Water should always be available and athletes should be able to take in as much water as they desire; (2) Mandatory water breaks every 30 minutes for 10 minutes in duration to allow for hydration as a group. In sports or sport-activities with multiple simultaneous contests or practices, the required monitoring and rest breaks shall be taken at the same time for all contests or practices; (3) All breaks shall be taken in areas outside of direct sunlight; (4) Have towels with ice for cooling of athletes as needed; and (5) Watch/monitor athletes carefully for necessary action. b) Additional Steps for Contact sports and activities with additional required protective equipment: (1) Helmets and other required equipment (by rule) should be removed when athlete not directly involved with competition, drill or practice, and it is not otherwise required by rule; (2) Reduce time of outside activity. Consider postponing practice to later in the day; and (3) Re-check temperature and humidity every 30 minutes to monitor for increased Heat Index.
100 DEGREES (ABOVE 99) TO 104 DEGREES HEAT INDEX OR WBGT BETWEEN 90.6 AND 91.5 a) All sports (1) Water should always be available and athletes should be able to take in as much water as they desire; (2) Mandatory water breaks every 30 minutes for 10 minutes in duration to allow for hydration as a group. In sports or sport-activities with multiple simultaneous contests or practices, the required monitoring and rest breaks shall be taken at the same time for all contests or practices; (3) All breaks shall be taken in areas outside of direct sunlight; (4) Have towels with ice for cooling of athletes as needed; (5) Watch/monitor athletes carefully for necessary action; (6) Alter uniform by removing items if possible and permissible by rules; (7) Allow for changes to dry T-shirts and shorts by athletes at defined intervals; (8) Reduce time of outside activity as well as indoor activity if air conditioning is unavailable; and (9) Postpone practice to later in day. b) Additional Steps for Contact sports and activities with additional required protective equipment: (1) If helmets or other protective equipment are required to be worn by rule or normal practice, suspend practice or competition immediately and resumption may not occur until the index is 99 degrees or below; (2) For sports that do not have mandatory protective equipment, reduce time of outside activity and consider postponing practice to later in the day; and (3) Re-check temperature and humidity every 30 minutes to monitor for changes in Heat Index.
ABOVE 104 DEGREES HEAT INDEX OR OVER 92 WBGT a) All sports (1) Stop all outside activity in practice and/or play, and stop all inside activity if air conditioning is unavailable.
CONTINUAL USAGE AND MONITORING a) This procedure is to be used until such time as the temperature is below 84 degrees as no combination of heat and humidity at that level will result in a need to curtail activity. b) The KHSAA will use September 15 as the standard date for the recording of the Heat Index forms in the fall, and April 15 as the start date in the spring. c) Member schools should remember that the monitoring shall continue any time that a combination of heat and humidity at that level could result in a need to curtail activity (an ambient temperature of 83 degrees or higher).



Secret

[illegible]

- Using the following scale, activity should be altered and / or eliminated based on this Heat Index as determined –

Under 95 degrees Heat Index	<ul style="list-style-type: none"> a) All sports <ul style="list-style-type: none"> (1) Water should always be available and athletes be able to take in as much water as they desire; (2) Optional water breaks every 30 minutes for 10 minutes in duration to allow hydration as a group; (3) Have towels with ice for cooling of athletes as needed; (4) Watch/monitor athletes carefully for necessary action; (5) Re-check temperature and humidity every 30 minutes if temperature rises in order to monitor for increased Heat Index.
95 degrees to 104 degrees Heat Index	<ul style="list-style-type: none"> a) All sports <ul style="list-style-type: none"> (1) Water should always be available and athletes should be able to take in as much water as they desire; (2) Mandatory water breaks every 30 minutes for 10 minutes in duration to allow for hydration as a group. In sports or sport-activities with multiple simultaneous contests or practices, the required monitoring and rest breaks shall be taken at the same time for all contests or practices; (3) Have towels with ice for cooling of athletes as needed; and (4) Watch/monitor athletes carefully for necessary action. b) Additional Steps for Contact sports and activities with additional required protective equipment: <ul style="list-style-type: none"> (1) Helmets and other required equipment (by rule) should be removed when athlete not directly involved with competition, drill or practice, and it is not otherwise required by rule; (2) Reduce time of outside activity. Consider postponing practice to later in the day; and (3) Re-check temperature and humidity every 30 minutes to monitor for increased Heat Index.
100 degrees (above 95 degrees) to 104 degrees Heat Index	<ul style="list-style-type: none"> a) All sports <ul style="list-style-type: none"> (1) Water should always be available and athletes should be able to take in as much water as they desire; (2) Mandatory water breaks every 30 minutes for 10 minutes in duration to allow for hydration as a group. In sports or sport-activities with multiple simultaneous contests or practices, the required monitoring and rest breaks shall be taken at the same time for all contests or practices; (3) Have towels with ice for cooling of athletes as needed; (4) Watch/monitor athletes carefully for necessary action; (5) Alter uniform by removing items if possible and permissible by rules; (6) Allow for changes to dry T-shirts and shorts by athletes at defined intervals; (7) Reduce time of outside activity as well as indoor activity if air conditioning is unavailable; and (8) Postpone practice to later in day. b) Additional Steps for Contact sports and activities with additional required protective equipment: <ul style="list-style-type: none"> (1) If helmets or other protective equipment are required to be worn by rule or normal practice, suspend practice or competition immediately and resumption may not occur until the index is 95 degrees or below; (2) For sports that do not have mandatory protective equipment, reduce time of outside activity and consider postponing practice to later in the day; and (3) Re-check temperature and humidity every 30 minutes to monitor for changes in Heat Index.
Above 104 degrees Heat Index	<ul style="list-style-type: none"> a) All sports <ul style="list-style-type: none"> (1) Stop all outside activity in practice and/or play, and stop all inside activity if air conditioning is unavailable.
Continual Use Procedure	<ul style="list-style-type: none"> a) This procedure is to be used until such time as the temperature is below 94 degrees as no combination of heat and humidity at that level will result in a need to curtail activity. b) The KHSSAA will use September 15 as the standard date for the recording of the Heat Index forms in the fall, and April 15 as the start date in the spring. c) Member schools should remember that the monitoring shall continue any time that a combination of heat and humidity at that level could result in a need to curtail activity (an ambient temperature of 83 degrees or higher).