



# Heat Illness and Exertional Heat Emergency

The following policy on Exertional Heat Illness (EHI) has been developed by the Central Arkansas Christian (CAC) Athletic Department to provide the highest quality healthcare for student-athletes in the CAC athletic program. This procedure is reviewed annually and revised as needed. Annual training occurs for the sports medicine staff, coaching staff, as well as annual updates and training with the local EMS provider.

## **PREVENTION OF EHI**

### Acclimatization Procedures

Central Arkansas Christian will follow the guidelines set forth by the Arkansas Activities Association effective June, 2011:

#### Football Pre-season Regulations

- Football practice may begin on Monday of week #5.
- Schools cannot have consecutive days of “two-a-day” practices.
- Three days of conditioning with only football helmets and shorts are mandatory before full pads are worn.
- Thursday of week #5 is the first permissible practice with full equipment.
- Student athletes shall not engage in more than three hours of practice activities on those days during which one practice is conducted.
- Student athletes shall not engage in more than five hours of practice activities on those days when more than one practice is conducted.
- The maximum length of any single practice session is three hours.
- On days when more than one practice is conducted, there shall be, at a minimum, one hour of rest/recovery time between the end of one practice and the beginning of the next practice.

When determining how to count time spent as “practice activities” please consult the following:

- Activities included in Practice Activities:
  - o Actual on field/court practice
  - o Sport specific skill instruction
  - o Mandatory conditioning
  - o Voluntary Conditioning

- Activities NOT included in Practice Activities
  - o Meetings
  - o Weight training
  - o Film study
  - o Water breaks
  - o Rest breaks
  - o Injury treatment

NO ACTIVITIES (including meetings, weight training, and film study) can occur during the one hour rest/recovery time between the end of one practice and the beginning of the next practice (on days when more than one practice is scheduled). This time is exclusively for students to rest/recover for the following practice session.

Other sports practicing or competing outdoors in the heat or in a gym which is not air-conditioned: It is suggested these sports should also follow the guidelines with the following modifications taken from the National Athletic Trainers' Association's Preseason Heat Acclimatization Guidelines for Secondary School Athletics ([www.nata.org/health-issues/heat-acclimatization](http://www.nata.org/health-issues/heat-acclimatization)):

#### 14-day Heat Acclimatization

- During the first five days of the heat-acclimatization process, athletes may not participate in more than one practice per day.
- If a practice is interrupted by inclement weather or heat restrictions, the practice should recommence once conditions are deemed safe, but total practice time should not exceed three hours per day.
- A one-hour maximum walk-through is permitted during the first five days of the heat-acclimatization period; however, a three-hour recovery period should be inserted between the practice and walk-through (or vice versa).
- Beginning no earlier than the 6th day and continuing through the 14th day, double-practice days must be followed by a single-practice day. On single-practice days, one walk-through is permitted, but it must be separated from the practice by at least three hours of continuous rest. When a double-practice day is followed by a rest day, another double-practice day is permitted after the rest day.
- On a double-practice day, neither practice's duration should exceed three hours total, and student-athletes should not participate in more than five total hours of practice. Warm-up, stretching, cool-down, walkthrough, conditioning and weight-room activities **are included** as part of the practice time. The two practices should be separated by at least three continuous hours in a cool environment.

## HEAT GUIDELINES

### Pre-Season

- Thorough and complete pre-participation history and physical examination
  - o Note history of heat illness
  - o Note history of sickle cell trait/disease and screening test results if positive
  - o Student athlete counseled on sickle cell trait/disease
  - o Athletic Trainer for sport notified of pre-existing conditions
  - o Coaches notified as necessary without breaching HIPAA guidelines
- Continuing education of sports medicine staff and coaching staff on heat illness recognition, management, and prevention.
- Training sessions and drills should be performed with medical staff.
- Review National Athletic Trainers' Association Position Statement: Fluid Replacement for Athletes.
- Review Emergency Action Plan with sports medicine and coaching staff.

### Pre-Practice

- Athletic trainer or coach will monitor heat index via digital psychrometer (primary method) or internet weather information (relative humidity and temperature) found on [www.weather.com](http://www.weather.com) for North Little Rock, AR (72113) combined with the adopted chart.
  - o Athletic trainer will communicate with coaches as to guidelines for practice, including but not limited to: Adjustment of practice times, breaks inclusion, intensity of workouts, equipment modification
  - o If a coach chooses not to follow the recommendations of the athletic trainer, **such is done at the risk of assumption of complete personal liability for subsequent events.** Disregarding athletic trainer's guidelines will not be tolerated.
- Educate student-athletes regarding hydration, diet and nutrition.
  - o No athlete will practice without having consumed an adequate amount of liquids and sufficient, proper food to fuel the workout.
- Stop medications that impair heat loss, increase thermogenesis, or decrease sweating, including but not limited to:
  - o Ephedra compounds
  - o Antihistamines
  - o Large amounts of caffeine; i.e., "energy" drinks
  - o Diuretics
- Hydration (See NATA Position Statement: Fluid Replacement for Athletes)
- Weight Charts
  - o Athletes will weigh in before practicing in the heat and record their pre-workout weight.

- o Athletes will weigh out after practicing in the heat and record their post-workout weight.
- o Athletes will hydrate and consume enough proper foods and liquids to return to within 1-2% (“3 lb rule”) of the original body weight recorded at the beginning of the week.

\*\*At the discretion of the sports medicine team and/or parent, if an athlete weighs in at the next practice and is not within this range of his/her original weight, the athlete **WILL NOT** practice until he or she returns to the correct weight.

\*\*If an athlete is attempting to lose weight for health purposes, he or she must be medically supervised and the athletic trainer and head coach must be notified.

- Ice towels or sponges, ice water ready and available with unlimited access.
- Ice water immersion tanks
  - o Set up in shaded area with all necessary accessories readily available.
  - o Athletic training staff will ensure there an adequate amount of ice readily available for each practice and will notify proper administration if there is not.
  - o Cold whirlpool will be made readily available by athletic training staff.
- Ensure emergency equipment (i.e., AED, thermometer, transport cart) is available.

#### During Practice

- Athletic training staff will monitor heat index at least every 30 minutes
- Minimize warm-up time in the heat; conduct warm-ups in the shade or indoor facility when possible.
- Athletic trainer will communicate with coaching staff as to changes in conditions and implement guidelines as necessary to modify practice or practice conditions.
- Unlimited water and ice sponge/towel access will be available.
- Cold water immersion tubs will be readily available in the Athletic Training Room as well as in shaded areas near practice settings.
- Athletes deemed to have any form of EHI will be removed from practice and will return **ONLY** at the discretion of the athletic trainer and/or a physician with no penalty.

#### Post-Practice

- Athletic training staff will communicate daily with coaches regarding injuries, weather forecasts, etc.
- Athletic training staff and coaches will communicate daily with student athletes regarding proper rest, hydration, and diet.
- Weight charts will be checked. Athletes who lose >3% will be closely monitored prior to subsequent practices. Athletes who do not regain the proper amount of

weight will **NOT** participate in practice until returning to acceptable weight. Coaches will be notified as to which athletes should be monitored.

#### Return-to-Play

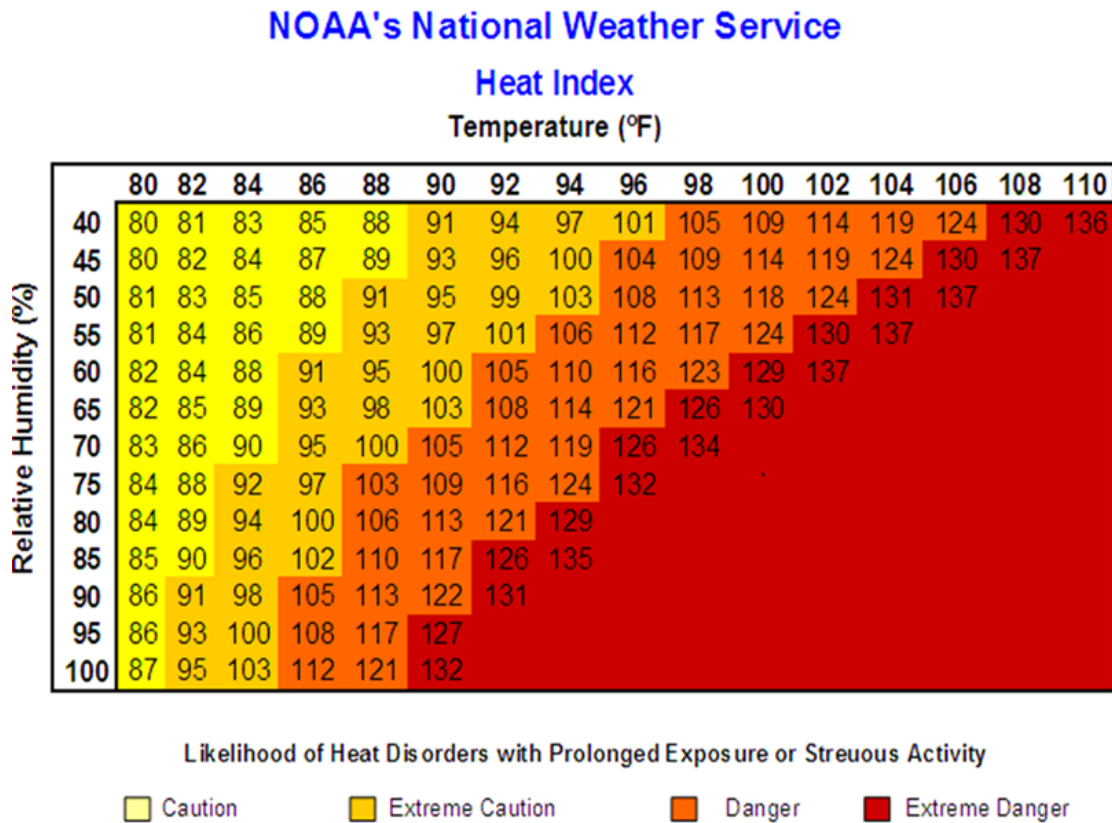
- If an athlete has experienced any heat-related illnesses, he or she should be evaluated by a physician to determine a return-to-play strategy. Student-athletes with EHS should avoid heat exposure for a minimum of **ONE (1) WEEK**. The student-athlete should not return to athletic activity until fully cleared, in writing, by a physician.

#### **PROCEDURES IN THE EVENT OF EXERTIONAL HEAT EMERGENCY**

- The athletic trainer will assess the athlete and determine if advanced life support or cold water immersion is of high priority. If so, contact EMS (911).
- If advanced life support is initially unnecessary, the following steps should be taken:
  - o The athletic trainer and/or designated coaches will transport the athlete to the nearest cold water immersion tank.
    - o If time permits, transport athlete to the Athletic Training Room and utilize an ice whirlpool. If more immediate action is needed, the closest outdoor tank will be utilized.
  - o EMS (911) will be activated by a designated coach.
  - o Athlete will be placed in the tank with a designated coach supporting the athlete with a towel around the chest and under the arms and one arm out of the tank.
  - o Ice will be dumped from a cooler placed by the tank until the top of the water is covered and will be circulated vigorously with a paddle.
  - o Vitals will be monitored by the athletic trainer or designated coach. Should an athlete become unresponsive, the athlete should be removed from the tank, the chest and torso dried, and life support measures begun.
  - o If a rectal thermometer is not available, use the “shivering” rule. If an athlete starts to shiver, the body is trying to rewarm itself and it is appropriate to remove the athlete from the tank (app. 10-15 minutes).
  - o Continue to monitor vitals until EMS arrives and takes control of the scene.

HEAT INDEX CHART:

Central Arkansas Christian will adopt the following Heat Index Chart developed by the National Weather Service:



In the event a digital psychrometer is unavailable, to determine relative humidity and temperature via internet, we will use [www.weather.com](http://www.weather.com) for North Little Rock (72113).

After heat index has been determined, these guidelines will be followed:

- Heat Index above 125: Athletes must practice indoors, in cooler area.
- Heat Index of 115-125: Shorts and shirts only. Helmets may be worn but must be removed following 15 min activity periods.
- Heat Index of 105-115: Either bottoms and helmets or tops and helmets. No combination of full pads permitted. Helmets may be removed at any point the athlete is not actively participating in a drill.
- Heat index of 95-105: Full pads permitted with frequent breaks and helmets removed at any point the athlete is not actively participating in a drill.
- Heat index under 95: No modifications needed