



# ADMINISTRATIVE PROCEDURE

## HEAT ACCLIMATIZATION AWARENESS AND EDUCATION PROGRAM

5154

Procedure No.

July 31, 2019

Date

- I. **PURPOSE:** To provide direction on the implementation of a Heat Acclimatization Program for student athletes involved in sports programs. This procedure sets forth guidelines for coaches' training and educating Prince George's County Public Schools' (PGCPS) student-athletes and their parents/guardians of heat acclimatization protocols.
- II. **DEFINITIONS:** For the purpose of this document, the following definitions will apply:
- A. **Heat Acclimatization** – Enhancing an individual's exercise heat tolerance and ability to exercise safely and effectively in warm to hot conditions.
  - B. **Hydration** – The process of drinking fluid to restore fluid levels in the body to avoid poor performance, muscle cramps, dizziness, fatigue, and other heat-related illness.
  - C. **Practice** – A period of time a student-athlete engages in physical activity during a coach supervised, school-approved sports- or conditioning-related activity, including warm-up, stretching, weight training, and cool-down periods.
  - D. **Recovery Period** – The time between the end of one practice or walk-through and the beginning of the next practice or walk-through.
  - E. **Walk-Through** – A teaching opportunity when an athlete is not wearing protective equipment, including helmets, shoulder pads, catcher's gear, or shin guards, or using other sports-related equipment (e.g., football, lacrosse sticks, blocking sleds, pitching machines, soccer balls, marker cones).
- III. **PROCEDURES:**
- A. All sports coaches shall complete the National Federation of High Schools (NFHS) Online Course for coaches – A Guide to Heat Acclimatization and Heat Illness Prevention, bi-annually, which is provided free of charge and available at [www.nfhslearn.com](http://www.nfhslearn.com) or via the PGCPS Athletics website. The certificate of completion shall be submitted to the school athletic director and retained for a period of five years.
  - B. All student athletes shall complete the approved handouts regarding hydration, heat acclimatization and prevention of heat illness prior to the first practice. Athletic directors shall verify completion for all student athletes.
  - C. Students who try-out for any sports team shall review heat acclimatization information and heat illness when registering via the online platform (FormReleaf) for athletic participation. A printed copy of information shall be provided to students without access to the electronic registration platform to



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review and sign. Athletic directors shall retain electronic and hard copy records for a period of five years.

- D. Parents of student-athletes shall review heat acclimatization and prevention of heat illness information available via the online platform (FormReleaf) and certify review prior to students' first practice. Certification of review may be completed online during the registration process or at the school where their child participates in athletics. All hardcopy or electronic documents must be retained by the athletic director for a period of five years.
- E. A link to the Maryland Public Secondary Schools Athletic Association (MPSSAA) and NFHS websites will be listed on the Prince George's County Public Schools Athletic website.

### V. HEAT ACCLIMATIZATION AWARENESS

- A. Hydration Awareness - Hydration awareness is vital to the overall safety and conditioning of a student athlete. The responsibility to prevent injury and to successfully hydrate student-athletes is shared among the student-athlete, coaching staff, and athletic trainers. National recommendations suggest student-athletes drink regularly throughout all physical activities.
  - 1. Coaches shall have readily available unlimited amounts of water during practice and designated breaks.
  - 2. Athletes shall be encouraged by parents and coaches to drink before, during, and after practice and games. For example: Drink 16 ounces of fluid 2 hours before physical activity. Drink another 8 to 16 ounces 15 minutes before physical activity. During physical activity, drink 4 to 8 ounces of fluid every 15 to 20 minutes (some athletes who sweat considerably can safely tolerate up to 48 ounces per hour).
  - 3. Athletes are to be encouraged by parents and coaches to drink 16 to 20 ounces of fluid after physical activity for every pound lost to achieve normal hydration status before the next practice or competition.
  - 4. Parents and coaches are encouraged to inform their student-athlete of the possible risk of cumulative dehydration if they do not properly rehydrate their bodies between practices. An athlete cannot always rely on his or her sense of thirst to sufficiently maintain proper hydration. Dehydration develops insidiously over several days and raises the risk for heat illness, especially in the first few days of acclimatization.
  - 5. Parents and coaches are encouraged to inform their students-athlete about monitoring their hydration level by the color and volume of urine. Small amounts of dark urine indicate indicates the need to drink more, while a regular amount of light colored urine is normal and indicates the student-athlete is well hydrated. A urine chart shall be posted by coaches in locker



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rooms so that student-athletes can access their individual hydration.

6. Fall coaches shall use a weight chart to access an athlete's weight loss and hydration status. Weights should be taken prior to and after practice each day. The weight chart shall be posted in a visible location for all coaches without compromising student confidentiality.
- B. Environmental and Non-Environmental Risk Factors - The MPSSAA Model Policy for Preseason-Practice Heat Acclimatization Guidelines for Student-Athletes explains the environmental and non-environmental risk factors. Coaches shall receive information on these risk factors during the fall coaches meeting. This meeting must be held prior to the first fall sports practice. In the event the meeting cannot be held prior to the first practice of the fall sports season or a coach cannot attend, coaches may receive and review a handout detailing the risk factors.
1. **Environmental Risk Factors** – Hot and humid conditions increase the risk for heat-related illness. Appropriate modifications to the practice schedule may be necessary based upon air temperature, humidity, wind speed and the amount of radiant heat. Coaches shall refer to Weather Guidelines located in the Prince George's County Public Schools Athletics Handbook.
  2. **Non-environmental Risk Factors:**
    - a. **Clothing and Equipment** - The WetBulb Globe Temperature (WBGT) is a measure of the heat stress in direct sunlight, which takes into account: temperature, humidity, wind speed, sun angle and cloud cover (solar radiation). When the WetBulb Globe Temperature increases, the risk of heat illnesses. Risk can be reduced by removing equipment and participating in drills wearing shirts and shorts only. Given that a great deal of heat is radiated from the head, helmets should be removed during hot and humid conditions.
    - b. **Age** - Children acclimatize to heat more slowly and are less effective in regulating body heat than adults.
    - c. **Dehydration** - Moderate levels of dehydration (3-5% of body weight) can cause a significant decrease in performance and predispose an athlete to exertional heat illness. Inadequate hydration compromises the body's ability to dissipate heat.
    - d. **Pre-activity Hydration Status** - Athletes who begin activity in an already dehydrated state are at increased risk for exertional heat illness. Pre-activity hydration status may be compromised by inadequate rehydration following previous session, alcohol consumption, rapid weight loss regimes (i.e., wrestling), and



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febrile or gastrointestinal illness (vomiting or diarrhea).

- e. **High Body Fat** - Athletes with a high percentage of body fat are at increased risk for heat illness, as fat acts to insulate the body and decreases the body's ability to dissipate heat.
- f. **Poor Acclimatization/Fitness Level** - Those not yet acclimatized to the heat or inadequately conditioned are at increased risk.
- g. **Febrile Illness** - A fever increases core temperature and decreases the ability of the body to compensate. Athletes with a fever, respiratory illness, vomiting or diarrhea should not exercise, especially in a hot environment.
- h. **Medications** - Amphetamines (including ADHD medications), ephedrine, synephrine ma huang and other stimulants increase heat production. Some medications have anticholinergic actions (amitriptyline, Atrovent) resulting in decreased sweat production. Diuretics can produce dehydration. Athletes taking medication for ADHD should be monitored closely for signs and symptoms of heat illness.
- i. **Sickle Cell Trait** - Athletes with sickle cell trait (SCT) are at increased risk for a sickling crisis when exercising during hot weather. Special precautions should be taken in hot and humid conditions for athletes with SCT.
- j. **Prior Heat Illness History** – the risk factor for individuals with a prior history of heat-related illnesses is higher. Decreased heat tolerance may affect 15 percent of athletes with a history of previous heat illness.

Additional non-environmental risk factors can be found in the consensus statement by the inter-association task force. Coaches shall review them.

- C. Practice Protocols - The heat-acclimatization period is designed for students on an individual basis. Days in which athletes do not practice due to a scheduled rest day, injury, illness or other reasons do not count towards their heat-acclimatization period.
  - 1. On single-practice days, one walk-through is permitted.
  - 2. Double practice days (beginning no earlier than practice day six (6) must be followed by a single-practice day or rest day. When a double-practice day is followed by a rest day, another double-practice day is permitted after the rest day.



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3. All practices and walk-through sessions must be separated by three hours of continuous rest.
4. 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 its limitations.

### D. Equipment Restrictions

1. Football
  - a. Practice days 1 and 2 – helmets only, and shorts/t-shirts.
  - b. Practice days 3 through 5 – helmets and shoulder pads only. Contact with blocking sleds and tackling dummies may be initiated.
  - c. Beginning practice day 6 – full protective equipment and full contact may begin.
2. Soccer - Shin guards and goalie gloves may be worn beginning day one.
3. Volleyball - Kneepads may be worn beginning day one.

### E. Practice Days

1. Practice Days 1-5
  - a. School teams shall conduct all practices within the general guidelines above as well as the following guidelines for practice days 1-5.
  - b. School teams are limited to one practice per day not to exceed three hours in length.
  - c. One walk-through session is permitted per day no longer than one hour in duration.
2. Practice Days 6-14
  - a. School teams shall conduct all practices within the general guidelines above as well as the following guidelines for practice days 6-14.



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- b. Total practice and walk-through time per day should be limited to five hours with no single session longer than three hours in duration.
  - c. School teams may participate in full contact practices with all protective equipment worn.
- VI. **EMERGENCY PLAN** - Following a comprehensive hydration and acclimatization plan, an effective emergency plan is critical to guide schools should a heat emergency occur. The availability of specific protocols can minimize potentially catastrophic injuries. Each school setting is unique and plans should be tailored to suit individual school needs. An uncomplicated plan provides the best opportunity to be remembered and implemented in time of crises. Any single heat emergency plan should incorporate three basic components; recognition of heat illness, immediate cooling, and transport via ambulance to a hospital.
1. Preparedness
    - a. Training to recognize symptoms of heat-related illnesses;
    - b. Availability of materials including 100-gallon Rubbermaid stock tank, plastic children's pool, towels;
    - c. Water source, bottled water, ice;
    - d. Cell phone.
  2. Emergency Treatment
    - a. Recognition of symptoms;
    - b. Rapid submersion in tub, pool and/or application of ice under arms and to groin area;
    - c. Transport via ambulance to hospital;
    - d. Water consumption.
  3. Pre-assignment of Responsibilities
    - a. Person to call 911 and then parent/guardian(s);



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- b. Person(s) to prepare soaking tub, pool or ice bags for topical application;
- c. Person(s) to assist with moving and attending injured player;
- d. Person to meet and escort emergency vehicle to victim;
- e. Person to supervise remaining members of the team.

### VII. MONITORING AND COMPLAINT

- A. It shall be the primary responsibility of school principal or his/her designee (athletic director) to ensure that all athletic coaches (paid and volunteer) have completed the NFHS Online Heat Acclimatization Awareness Course every two years.
- B. Athletic directors shall maintain certifications for a period of five years in the electronic platform and notify the coach in writing three months prior to their renewal dates. Electronic communication may serve as the written notification to a coach.
- C. Athletic coaches are to complete the course and submit a copy of their certificate of completion to their athletic director by uploading the certificate into the electronic platform for coaches or by providing a hardcopy.
- D. Athletics directors shall ensure completion of required training by all potential student-athletes and parents and maintain documentation for a period of five years.
- E. The Coordinating Supervisor of Athletics shall conduct random school audits throughout the year for compliance with documentation maintenance.
- F. Coaches who have not meet the requirements as listed in this procedure shall be removed from their coaching duties immediately.

VIII. LEGAL AUTHORITY: Maryland Code, Education Article section 7-434.

IX. RELATED PROCEDURES: Administrative Procedure 5155, Concussion Awareness Program.

X. MAINTENANCE AND UPDATE OF THESE PROCEDURES: These procedures originate with the Office of Athletics and will be updated as needed.

XI. CANCELLATIONS AND SUPERSEDES: This Administrative Procedure cancels and supersedes Administrative Procedure 5154 dated July 1, 2012.



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XII. **EFFECTIVE DATE:** July 31, 2019.

Attachment:

MPSSAA Sample Practice Schedule - Heat Acclimatization Awareness and Education Program