Allegany College of Maryland Athletics Department

Emergency Action Plan

(Revised: August 2019)

In the event of an emergency, all members of the athletics staff have a responsibility to act. The Emergency Action Plan (EAP) is for the protection and safety of all members of Allegany College of Maryland. Its purpose is to provide staff with guidelines as to how to respond in the most efficient manner in the event of an emergency in order to increase the timeliness and effectiveness of obtaining immediate care. In critical situations such as this, proper actions save lives and prevent further injury. This policy serves to outline the specific roles of each member of the athletics department team during an emergency. For your safety and the safety of others on campus, any staff employed by the Department of Athletics should familiarize themselves with this plan on a seasonal basis.

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A. Emergency Contact Information

- Ambulance/ EMS …….. 911
- Western Maryland Health Services Emergency Room..... 240-964-7000
- Head Athletic Trainer ……..... 301-991-2921
  Sarah Hensley, MS, LAT,ATC (Office) 301-784-5659
- Athletic Director …… 240-979-8568
  Tommie Reams (Office) 301-784-5264
  (Home) 301-724-8719
- Athletic Department…… ……. 301-784-5265
- Campus Security……..……..…… 301-784-5555
- Poison Control…….. 1-800-222-1222
- Cumberland City Fire Department……. 301-759-6485
- Cumberland Police Department…… 301-777-1600

B. Local Hospitals/Clinics

Facility	Address/Phone #	Distance from ACM
Hospital- Western MD Health Systems	12500 Willowbrook Rd, Cumberland, MD, 21502 / 240-964-7000	0.7 mi. / 2 min
Urgent Care- Health Matters Hours: 9am-7pm, M-Sa	14302 Barton Blvd SW, Cumberland, MD, 21502 301-729-3278	9.5 mi. / 15 min
Urgent Care- MedExpress Hours: 8am-8pm Daily	1219 National Hwy, Cumberland, MD, 21502 301-729-0529	6.1 mi./ 10 min
Team Physician- Dr.Carls, MD	Peak Performance Orthopedics/625 Kent Ave, Suite 102, Cumberland, MD 21502 301-777-7445	2.2 mi. / 6 min
Neurology- Janjua Neurology PA-Amir Murtaza	625 Kent Ave # 302 (301) 777-1930	2.2 mi. / 6 min

C. Emergency Procedures

All coaches and athletic department staff must be familiar with and be able to implement the Emergency Action Plan.

1. **<u>Licensed Certified Athletic Trainer (LAT/ATC) On-Site</u>**
   A. ATC/L performs primary assessment of injury and injury management procedures: Maintains Airway, Breathing, and Circulation.
   B. If Emergency Medical Service (EMS) deemed necessary, ATC will call or designate person to call **911**.

   Locations of nearest phones:
   1. ATC and/or Administrative personnel cell phone
   2. Allegany College of Maryland Athletic Training Room
   3. Coach's Offices

   C. **Procedures for Contacting EMS:**
   - Remain Calm, Dial 911 (on-campus phone: Dial 9-911)
   - Provide EMS with:
     1. Your name
     2. Name of injured athlete, age, gender, sport
     3. Emergency location (ex. Baseball Field/ Soccer Field/ Tennis Courts/ Gymnasium/ Bob Kirk Arena)
     4. Severity and nature of injury/condition of athlete (ex. Spinal cord injury/fracture, conscious/unconscious)
     5. Time the injury occurred
     6. Current treatment being given and what is needed
     7. Provide phone number that is being called from
     8. Wait for operator to hang up first
   - Send another staff member to direct ambulance to field/stadium
   - Remain with injured athlete until EMS arrives
   - Athlete is NOT to be taken to the emergency room alone. Coach or other ACM athletics staff will accompany the athlete with EMS.
   - The initial telephone call to the parents will be made by either the Athletic Trainer or hospital personnel. Coaches are not to call the athlete's parents until they have been contacted by the Athletic Trainer or hospital personnel.

- An injury report will be completed by the Athletic Trainer.

D. If EMS is not necessary, but assessment by a physician is indicated, an approved driver (ACM Athletics Staff/ ATC/ Coach) will drive the athlete. If this is not available, and the athlete is capable, he/she should transport him/herself. If neither is available, a friend/ teammate should transport the athlete.

2. <u>ATC/L Not On Site</u>

A. Coach will complete a primary survey.
B. Contact ATC and follow instructions. Contact EMS if ATC is not available
C. If EMS is needed, follow "Procedures for Contacting EMS" as outlined above
D. Contact campus security at EXT. 5555. Provide campus security with nature and location of injury, and where someone will meet the EMS personnel
D. Remain with athlete until EMS or ATC arrives
E. If EMS is not necessary, remain with athlete until ATC arrives
F. The initial telephone call to the parents will be made by the athlete or hospital personnel. Members of the Athletic Department are not to call the athlete's parents without the athlete's permission.
G. An injury report will be completed by the Athletic Trainer.

3. <u>Injuries at an Away Game</u>

A. Home team ATC on site will assess the injury and provide necessary initial injury management.
B. If EMS is accessed; the athlete is **NOT** to be taken to the emergency room alone. A member of the coaching staff will accompany the athlete with EMS.
C. The initial telephone call to the parents will be made by the athlete or hospital personnel.
D. An injury report will be completed by the on-site Athletic Trainer.

D. Designated Responsibilities of Athletics Department Staff

1. Athletic Training Staff (ATC/L, CPR/AED/First Aid Professional Rescuer)

- Performs initial injury assessment
- Attends to injured athlete, administers first aid
- Controls scene or designates coaching staff
- Calls 911 & campus security at EXT. 5555 (may designate person to call)
- Assists EMT upon arrival and in transition of care
- Provides EMT with pertinent patient information (allergies, medical history, insurance information)
- Communicate with coaches on athlete condition and progress
- Notifies parents of inured athlete and provides parent with Athletic Department number
- Post injury follow up with injured athlete and coach
- File Allegany College of Maryland secondary insurance

2. Head Coach (CPR/AED/First Aid Certified)

- First Responder when ATC not on site. Provides care until ATC arrives
- Contact ATC as soon as possible
- Supervises rest of athletes
- Provides EMT with pertinent patient information (allergies, medical history, insurance information)
- Notify parent/guardian in the event that the athlete is in critical condition
- Arrange for assistant coach or other coaching staff to accompany athlete to Emergency Room

3. Assistant Coach
   - Accompany injured athlete to hospital

4. ACM Faculty
   - Crowd control

Injury of Away Team Athlete: Each away team is responsible for sending a coach with an athlete (ACM will NOT accompany an athlete from another institution).

E. Field Locations and Directions

1. Soccer, Volleyball, Basketball, Softball, and Baseball

The exact address is 12401 Willowbrook Rd SE, Cumberland, MD, 21502

a) Bob Kirk Arena/Gymnasium (Volleyball, Basketball) - (Directions from I-68 from Willowbrook Rd.) Left onto Willowbrook Rd; make L into the main entrance of campus. Take third right. Follow road down to parking and go L. Follow parking lot to gymnasium and Bob Kirk Arena for basketball and volleyball.

b) Baseball Field- Left onto Willowbrook Rd; make L into the main entrance of campus. Take third right. Follow road down to parking and go L. Go straight to Baseball field.

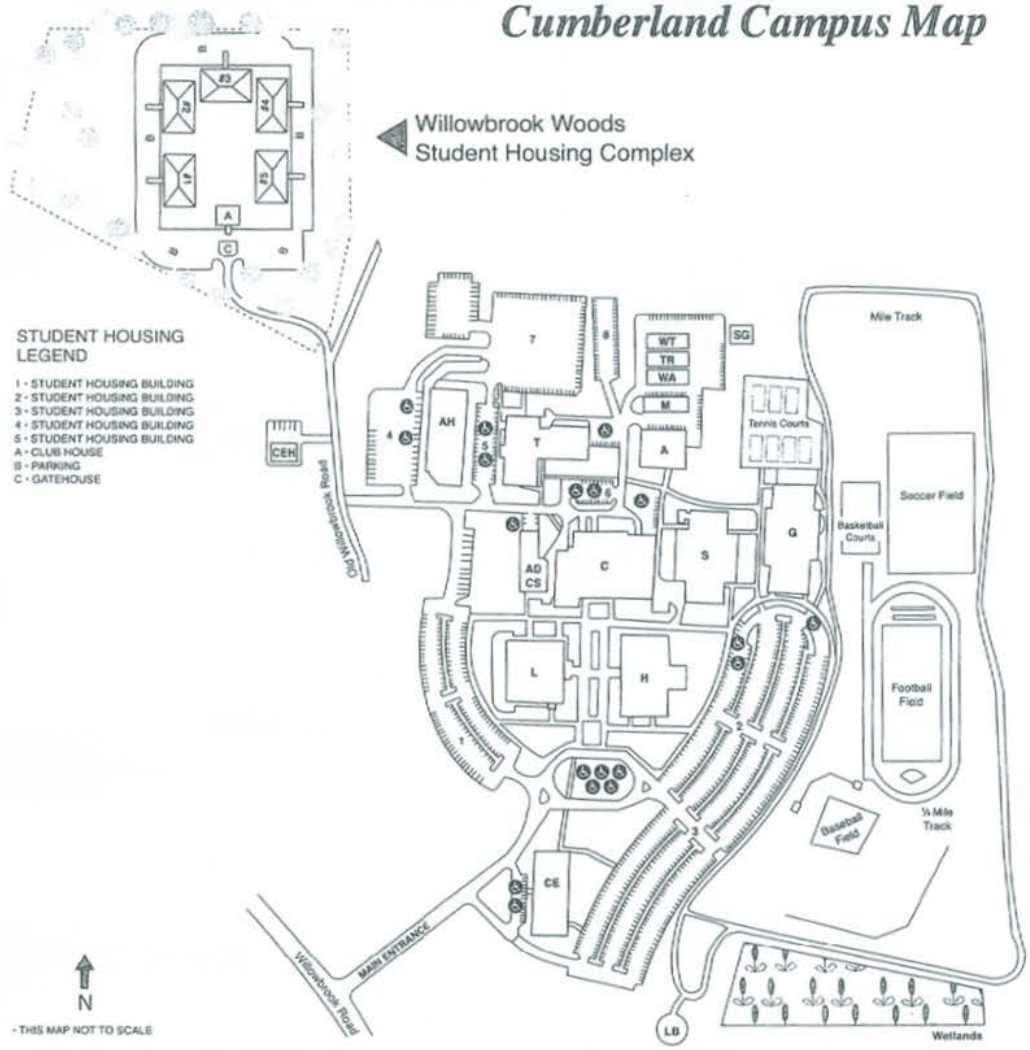
c) Soccer Field- Soccer field located directly behind athletics building and outdoor basketball courts. Located beside concrete outdoor track.

d) Softball Field- Follow directions for Gymnasium parking lot, use access road behind building, follow until tennis courts are on the left, softball field will be to the right.

e) Tennis Court- Follow directions to Gymnasium parking lot, use access road behind building, tennis courts will be located on the far side behind the building on the left.

ALLEGANY COLLEGE of MARYLAND

Cumberland Campus Map



LEGEND

A	Automotive Technology	**CS**	Campus Store	**SG**	Storage
AD	Advancement (Foundation, Public Relations, Marketing)	**G**	Gymnasium (Bob Kirk Arena)	**T**	Technologies
AH	Allied Health	**H**	Humanities	**TR**	Transportation
C	College Center	**L**	Donald L. Alexander Library	**WA**	Welding & Auto
CE	Continuing Education (Information Center)	**LB**	Labyrinth	**WT**	Workforce Training
CEH	Continuing Education Health & Human Services (CPR Office)	**M**	Maintenance	**1-8**	Parking
		S	Sciences	**Ⓢ**	Handicap Parking

Financial Aid, Admissions/Registration, Business Offices are located in the College Center (C).
Ample parking is available, with reserved parking identified for the handicapped.

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F. Locations of AED (Automated External Defibrillator)

Gymnasium- Bob Kirk Arena

1. Athletic Training Room- Room 159
   - Portable AED if not on field: Located directly inside, second cabinet on the Left labeled AED
2. Wellness Center – Room 134
   - Fixed to wall behind fitness center desk directly inside to the right
3. During all home games, ATR portable AED will no longer be in the ATR, it will be on the sidelines at home team bench next Athletic Training travel bag for indoor events, and on Athletic Training golf cart for outdoor events.

G. Additional Policies

1. Cold Exposure Policy

Cold exposure in general can affect many body systems. Physiological factors such as strength, power, endurance and aerobic capacity are reduced by a drop in muscle temperature or body core temperature. The combination of cold air and the deep breathing of exercise can trigger an asthma attack (bronchospasm). When the body and clothing are wet (whether from sweat, rain, or snow or immersion), the cooling is even more pronounced due to evaporation of the water held close to the skin by wet clothing.

There are two primary issues that we get concerned with when we think of cold exposure, hypothermia and frostbite. Hypothermia is more prevalent in our athletic setting and is our primary concern.

a. Hypothermia

The severity of hypothermia can vary, depending on how low the core body temperature gets. Hypothermia frequently occurs at temperatures above freezing. There are specific signs and symptoms to look for. The condition worsens as the core body temperature lowers. Some unique predisposing factors to hypothermia are individuals who are diabetic and those that have an active infection of some sort. Others include being exposed to rain, wind, or increased sweatiness.

Mild Hypothermia (core body temperature ranges from 99-95 degrees Fahrenheit):
• Involuntary shivering
• Inability to perform complex motor functions
* increased blood pressure

Moderate Hypothermia (core body temperature ranges from 95-90 degrees Fahrenheit):
•Slurred speech
•Violent shivering
•Dazed consciousness
•Irrational behavior (for example, the person may begin undressing and is unaware of being cold)
• Loss of fine motor coordination

Severe Hypothermia (core body temperature ranges from 90-75 degrees Fahrenheit):
•Pupils are dilated
•Skin is pale
•Pulse rate decreases
•Muscle rigidity develops
•Shivering occurs in waves, it is violent and then pauses; the pauses eventually grow longer and longer until shivering ceases
•Person falls to the ground and cannot walk; may curl into a fetal position to conserve heat
•Person loses consciousness, heartbeat and respiration are erratic
•Cardiac and respiratory failure, then death

b. Frostbite
Frostbite is the freezing of superficial tissues, usually of the face, ears, fingers and toes. In conditions of prolonged cold exposure, your body sends signals to the blood vessels in your arms and legs telling them to constrict (narrow).
By slowing blood flow to the skin, your body is able to send more blood to the vital organs, supplying them with critical nutrients, while also preventing a further decrease in internal body temperature by exposing less blood to the outside cold.
As this process continues and your extremities (the parts farthest from your heart) become colder and colder, a condition called the hunter's response is initiated.
Your blood vessels are dilated (widened) for a period of time and then constricted again. Periods of dilatation are cycled with times of constriction in order to preserve as much function in your extremities as possible. However, when your brain senses that you are in danger of hypothermia (when your body temperature drops significantly below 98.6°F), it permanently constricts these blood vessels in order to prevent them from returning cold blood to the internal organs. When this happens, frostbite has begun.
Some factors that predispose someone to frostbite are: wet skin, wind-chill, dehydration, African-American descent, female, hypotensive individuals, anemia, diabetes, and those with sickle cell disease.

Cold Exposure (Wind Chill/Real Feel)

Temperature is a measure of the heat of a substance. Convectional heat loss occurs when air or water passes over the body. Convection dramatically increases heat loss and must be factored into any decision concerning exposure. The greater the wind speed, the faster the object will lose heat. Some days feel colder than others when there is a strong wind blowing, even if the temperatures are the same. This phenomenon is known as wind chill or real feel. To estimate the heat loss based on temperature and wind speeds, we use the Wind Chill or Real Feel Index.
Why should we care about wind chill/real feel? A lower wind chill can increase the rate at which certain cold-weather dangers, such as frostbite and hypothermia can develop. There are precautions that we can take to avoid them when outside in extreme weather, such as wearing proper clothing and using appropriate equipment. Here are some of the conditions that can lead to hypothermia:

- **Cold temperatures**
- **Improper dress/equipment**
- **Wetness**
- **Poor food intake**
- **Prolonged exposure**
- **Exposed skin**
- **Poor hydration**

Cold Exposure Requirements
Cold weather is defined as any temperature that can negatively affect the body's temperature regulatory system. These do not have to be freezing temperatures. The following **Cold Exposure Policy** has been established for ACM Athletics practice and event/game participation. The wind chill/real feel temperature will be initially determined by 3 pm and monitored throughout the practice time. The ACM coaching staff and Athletic Training staff will work together to make sure that this program provide a safe playing environment for our student athletes. To help ensure consistency and accuracy the **Weather Bug app**. will be used to determine the real feel/wind chill temperature (Cumberland, MD as the location).

Cold Weather Caution:
When temperature or wind chill/real feel is from **25-50 degrees F**

- No modification of practice, but coaches are expected to warn their student-athletes must dress appropriately or else they are not allowed to practice

- Dressing appropriately as defined further in this document
- Coaches and Athletic Trainers must watch “high risk” athletes

Cold Weather Modification:
When wind chill/real feel is from **15-25degrees F,** there will be a modified outside participation limit of 1 1/2 hour.

- All student-athletes must have appropriate clothing on, specifically they must have all skin covered except the facial area
- Hat, gloves and clothing on the lower extremity must be in place
- Failure to do so will prevent the student –athlete from practicing until they are appropriately dressed
- Warm-up should be started indoors (stretching, etc.) to not take away from practice time.
- Practice should be planned that keeps student-athletes moving
- Coaches should try to avoid having student-athletes work up a big sweat in the first 20 minutes of practice; this will help them decrease evaporative heat loss that the perspiration will cause
- Coaches should try to keep all student-athletes moving during practice and not stand around watching
- Both Coaches and Athletic Trainers must keep a very close eye on “high risk” athletes
- If available cool-down indoors.

Cold Weather Termination:
When wind chill/real feel reaches **15 degrees F and below**, there will be a termination of all outside practices and contests.

Cold Exposure Policy for **Home Events**

- ACM Athletic Training will check weather at least 3 days prior to game. In the event of anticipated inclement weather, they will contact visiting Athletic Trainer to discuss ACM Cold Exposure Policy, and discuss plan of action should the weather be a concern on the day of the competition.
- After initial contact is made with visiting athletic trainer, ACM Athletic Training staff will check the weather each day leading up to the game to monitor changes. Communication will be maintained with the visiting athletic trainer should any changes occur following initial discussion.
- The same policy will be applied to games as is done with practice.

In addition to the above policy, it is recommended that additional directives are given to the student- athletes by ACM coaches.

-Cold exposure/activity requires more energy from the body. Additional calorie intake may be required.
-Cold exposure can be affected by poor hydration. Dehydration affects the body’s ability to regulate temperature and increases the risk of frostbite. Make sure that student-athletes are hydrated before practicing or competing
-Cold exposure/activity requires similar hydration to room temperature; however, the thirst reflex is not activated. Conscious efforts should be made before and after practice to hydrate.
-Never train alone. A simple ankle sprain in cold weather may become life threatening.
-Student-athletes should be instructed on signs of cold stress (wind chill, frostbite and hypothermia). Fatigue, confusion, slurred speech, red or painful extremities, swollen extremities, blurred vision, red watery eyes, dizziness, headache, numbness, tingling of skin and extremities, shivering, uncontrollable shivering etc. are a few warning signs of cold stress.

Appropriate clothing:

In cold weather temperatures proper layered clothing should be worn and encouraged and required by the ACM Athletics department coaching staff. Clothing should be ***layered*** to allow adjustments as activity level may increase and decrease within a practice which may elevate or drop body temperature. The first layer of clothing on the skin should wick sweat and moisture away from the body to prevent evaporative heat loss. Most major manufactures have products such as "cold gear" that has been developed for this purpose. The top layers should act as insulators to trap heat and block wind. Gore-Tex or some other wind blocking materials are best.
These include:

- Several layers around the core of the body, especially for those individuals that are not very active
- Long pants designed to insulate. On very cold days a nylon shell or wind pant can be worn on top of them for additional wind break
- Long sleeve shirt/sweatshirt/coat designed to insulate and break the wind
- Gloves
- Ear protection/hat or helmet
- Face protection
- Wicking socks that do not hold moisture inside. Wool is excellent. Cotton absorbs and holds in moisture.

2. Heat Illness Policy

Unidentified and untreated heat illnesses can have very serious implications. Every year, exertional heat stroke is one of the 3 leading causes of death among athletes. It has been identified as the most frequent cause of athletic fatality in the past 5 years. Emergency action plans (EAPs) should be maintained for both in season and out of season activities and take into consideration the heat illness protocol. It is advised that athletes, coaches, officials, and spectators are accounted for in the EAP. This EAP, including heat illness protocol, should not only be up-to-date but also should be reviewed and practiced annually.

Prevention

Proper preparation and education can prevent heat illness. Prior to the start of a sports season, precautions can be taken during the pre-participation exams and educational sessions. Pre-participation exam questions should include questions in the medical history to identify those predisposed to heat illness. There can be both extrinsic and intrinsic factors that influence one's susceptibility to heat illness. A thorough medical history is imperative. The following medical conditions predispose athletes to the risk of heat illness: malignant hyperthermia, neuroleptic malignant syndrome, arteriosclerotic vascular disease, scleroderma, cystic fibrosis, and sickle cell trait. Other intrinsic risk factors for heat illness include poor cardiovascular fitness, a high BMI, poor heat acclimation, history of heat illness, dehydration or electrolyte imbalance, recent febrile illness, sleep deprivation, drug/supplement use, and a high level of motivation. Athletes and coaches should be educated regarding the prevention, recognition, and treatment of heat illness. During this educational session, athletes should be encouraged to sleep 6-8 hours, eat a well-balanced diet, and stay hydrated. Proper fluid intake should be determined based on sweat and urine loss. Athletes should drink sodium containing fluids to keep their urine clear to light yellow to improve hydration and replace fluids. As little as a 2% loss in fluids impairs skill performance. If a player begins competition in a hypo-hydrated state, fluid intake during activity often fails to compensate for this deficit. NATA recommends that pregame urine specific gravity to be at or below 1.020 to ensure adequate hydration. Coaches should be encouraged to appropriately plan practices so athletes can proper adjust to the environment. Acclimatization to heat should take place 10 to 14 days over which period the intensity and duration of activity is gradually increased.

Pre-practice or event set-up should take into consideration environmental considerations and the needs of the sport. If there is a mass participation event that will have a high risk of heat-related illness,

then the area hospital and EMS should be notified. During hot, humid weather wet bulb globe temperature should be used and guidelines should be implemented to determine practice status/restrictions (see charts). Adjust practices based on continual monitoring of environmental conditions. This may mean minimizing the amount of equipment and clothing worn by the athlete in hot or humid conditions; changing the time at which the team practices; increasing the amount of rest breaks; minimize warm-up time when feasible; or conducting warm-up/practice sessions in shaded areas with adequate air flow.

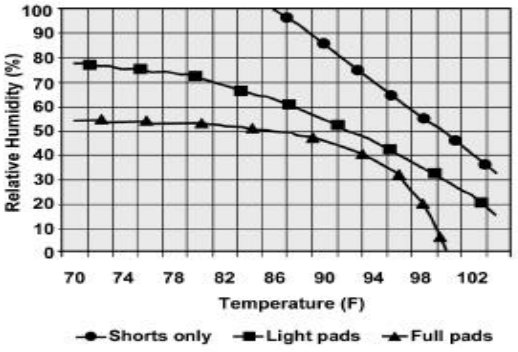
Wet Bulb Globe Temperature Chart

Temperature	Color	Level of Risk
<65°F (<18°C)	Green	Low but still exists on the basis of risk factors
65°-73°F (18°-23°C)	Yellow	Moderate- risk level increases as event progresses through the day
73°-82°F (23°-28°C)	Red	High: Everyone should be aware of injury potential; individuals at risk should not compete
>82°F (>28°C)	Black	Extreme or hazardous: Consider rescheduling or delaying the event until safer conditions prevail; if the event must take place, be on high alert. Take steps to reduce risk factors.

The WBGT can be measured with a WBGT meter. The calculation for the determination of WBGT is: WBGT = .7 (Wet Bulb Temperature) + .2 (Black Globe Temperature) + .1 (Dry Bulb Temperature).
Taken from: The Inter-Association Task Force Exertional Heat Illnesses Consensus Statement

Extrinsic risk factors for heat illness include exercising in a warm or hot, humid environment; wearing protective equipment that act as barriers to evaporation; excessive or dark colored clothing; having inappropriate work to rest ratios; having insufficient access to water and shade; and wet-bulb globe temperature on previous day and night. The following items should be kept on field: ice, rectal thermometer, phone, water/sports drinks, and a tub for full body cooling. Rectal temperature is recommended by both the NATA and ACSM position guidelines and is considered the criterion standard for temperature measurement in hyperthermic athletes. For rectal measurements to be properly taken, the temperature probe must be inserted 10 cm past the anal sphincter. Furthermore, a flexible thermistor versus a standard nonflexible thermometer should be utilized so that an athlete in cold water immersion can be continuously monitored.

<u>Heat Considerations: Equipment and Rest Ratios</u>



Taken from: Kulka J, Kenney WL. Heat balance limits in football uniforms: how different uniform ensembles alter the equation. Physician Sportsmed.

Fluid breaks should be scheduled for all practices and scheduled more frequently as the heat stress rises. Add 5º to temperature between 10 a.m. and 4 p.m. from mid-May to mid-September on bright, sunny days. Cancel all practices when the temperature and relative humidity plot is to the right of the circles; practices may be moved into air-conditioned spaces or held as walk through sessions with no conditioning activities. Conditions that plot between squares and circles: use work/rest ratio with 15 to 20 minutes of activity followed by 5- to 10-minute rest and fluid breaks. Conditions that plot between triangles and squares: use work/rest ratio with 20 to 25 minutes of activity followed by 5- to 10-minute rest and fluid breaks. Conditions that plot beneath triangles (through remaining range of chart): use work/rest ratio with 25 to 30 minutes of activity followed by 5- to 10-minute rest and fluid breaks.

During practice, the athletic trainer should provide an adequate supply of fluids so that fluid loss should not exceed 2-3% of body weight during practice. Hydration checks should be mandated as needed. Higher risk athletes should be monitored for weight loss both before and after practice. 16oz or 1 to 1.25 L of fluid should be consumed for every pound of weight loss. If needed, the athletic trainer should provide medical care and restriction from activity based upon each type of heat illness.

Heat Illness Identification and Treatment

Illness	Signs and symptoms	Treatment
Exercise-associated muscle spasms (heat cramps)	-Dehydration, thirst, sweating, transient muscle cramps, and/or fatigue	-Stop activity -Replace loss fluids with sodium containing beverages (can use 2, 10 grain salt tablets dissolved in 1 L of water) -Perform mild stretching and massage of the muscle spasm -A recumbent position may aid blood distribution
Heat syncope	-Dehydration, fatigue, tunnel vision, pale or sweaty skin, decreased pulse rate, dizziness, lightheadedness, and/or fainting -Typically occurs during first 5 days of heat acclimatization or with individuals with either heart conditions or those taking diuretics -Can occur after standing for long periods of time, after immediate cessation of activity, or after assumption of rapid upright posture after resting or being seated	-Stop activity. -Move athlete to cool, shaded area -Monitor vital signs -Elevate legs -Rehydrate
Exercise (heat) exhaustion	-Normal or elevated body-core temperature(97 to 104*F), lightheadedness, dizziness, syncope, headache, nausea, anorexia, dehydration, decreased urine output, persistent muscle cramps, pallor, profuse sweating, chills, cool clammy skin, intestinal cramps, urge to defecate, diarrhea, weakness, and/or hyperventilation	-Measure core body temperature rectally - If temperature is elevated then remove excessive clothing to facilitate cooling. -Move athlete to cooler area -Use fans, ice bags, ice towel to decrease body temperature -Start fluid replacement -Transfer to physician if recovery is not rapid and uneventful
Exertional heat stroke	-High (>104*F) body core temperature, CNS changes, dizziness, drowsiness, irrational behavior, confusion, irritability, emotional instability, hysteria, apathy, aggressiveness, delirium, disorientation, staggering, seizures, loss of consciousness, coma, weakness, hot and wet or dry skin, tachycardia (100-120 bpm), hypotension, hyperventilation, vomiting, dehydration, and/or diarrhea	-Measure core body temperature rectally and assess cognitive function -Activate EMS - Lower body temperature as quickly as possible by removing clothing and immersing the athlete into a pool/tub of cold water (35-59*F). -Monitor temperature every 5 to 10 minutes. Once the temperature is 101-102*F, remove the athlete from the tub and proceed with emergency medical system transport. -Monitor for organ system complications for at least 24 hours * Exertional heat stroke has had a 100% survival rate when immediate cooling via cold water immersion or aggressive whole body cold water dousing was initiated within 10 minutes of collapse*
Exertional hyponatremia	-High (>104*F) body core temperature, nausea, vomiting, extremity swelling, low blood-sodium level(<130 mmol/L), progressive headache, confusion, significant mental compromise, lethargy, altered consciousness, apathy, pulmonary edema, cerebral edema, seizures, and/or coma -Usually occurs when activities exceed 4 hours	-Do not administer fluids until a physician is consulted. Activate EMS
Exertional Sickling &	-Usually occurs in the first few minutes of high intensity exercise	-Give supplemental oxygen if possible -Cool the athlete, if needed

Exertional Rhabdomyalysis	- Diffuse increasing pain and weakness in the muscles, especially in the lower extremities. -Legs become weak and unstable, athletes normally collapse	-Call 911 and explain to doctors the urgent care needed to prevent explosive rhabdomyolysis

Return to Play

Heat Cramps

Student-athletes with heat cramp are typically able to return to play during the same game or practice provided he/she is able to have proper rest and fluid replacement. After an acute episode, diet, rehydration practices, electrolyte consumption, fitness status, level of acclimatization and use of dietary supplements should be reviewed and possibly modified to decrease risk of recurring heat cramps. If the muscle cramping is associated with heat exhaustion or symptomatic hyponatremia, the recommendations for the more severe problem should guide the return to play.

Heat Syncope

An athlete may return to play once his/her symptoms have resolved and any other medical conditions have been ruled out. Athletes should attempt to rehydrate as necessary.

Exercise Exhaustion

An immediate return to activity following heat exhaustion is not advised since neither rest nor body cooling allows these cases to fully recover on the same day. All underlying condition or illness that predisposed athlete for continued problems should be ruled out. It is recommended that there is physician clearance or, at minimum, a discussion with the supervising physician before return. Athletes with milder forms of heat exhaustion can often return to light activity within 24–48 hours. The athlete should be symptom free and fully hydrated. The intensity and volume of activity can be gradually increased over the course of a few days.

Exertional Heat Stroke

Typically the athlete should avoid exercise for a minimum of 1 week after immediate release from medical care. Usually 1 week after release the athlete should follow up for a physical exam and repeat lab testing or diagnostic imaging of affected organs. To be cleared for participation by a physician, lab work should be normal and the athlete should be asymptomatic. The severity of the incident will dictate the length of recovery. A gradual return to participation and acclimatization should take place under the supervision of an athletic trainer. Type and length of exercise should be determined by the athlete's physician and might follow this pattern:

1. Easy-to-moderate exercise in a climate controlled environment for several days, followed by strenuous exercise in a climate-controlled environment for several days.
2. Easy-to-moderate exercise in heat for several days, followed by strenuous exercise in heat for several days.
3. (If applicable) Easy-to-moderate exercise in heat with equipment for several days, followed by strenuous exercise in heat with equipment for several days.
4. Full return to activity

Exertional Hyponatremia

In the case of exertional hyponatremia, the guidelines for return to play for exertional heat stroke are followed. An educational session on establishing an individual-specific hydration protocol is recommended as a preventative measure.

Exertional Sickling/ Exertional Rhabdomyolysis

Return to play is based on the severity of the sickling or rhabdomyolysis. In all cases, blood samples (creatine kinase and liver/renal markers) must return to normal. In mild and well managed cases the athlete may return the next day; however, more severe cases may require extended hospitalization with no return to play. Depending on the situation, the return to play guidelines in the previous two sections may be used.

Conclusion

With proper preparation and education, heat illness can either be minimized or have minimal detrimental effects.

Heat Illness Practice and Competition Policy

WBGT	Sports while wearing shorts, T-shirts, socks and, shoes
$\leq 50^0$ F	Normal activity
50.1-65.0^0 F	Normal activity
65.1-72.0^0 F	Increase the rest: work ratio/ Monitor fluid intake
72.1-78.0^0 F	Increase the rest: work ratio and decrease total duration of activity
78.1-82.0^0 F	Increase the rest: work ratio and decrease the intensity and total duration of activity
82.1-86.0^0 F	Increase the rest: work ratio to 1:1, decrease intensity and total duration of activity, limit intense exercise, and watch at-risk individuals carefully
$\geq 86.1^0$ F	Cancel or stop practice and competition

3. Sickle Cell Trait Conditioning Guidelines

To assure that all of those involved with the conditioning of athletes with sickle cell trait understand how to proceed, the following guidelines have been taken from a document developed by the National Athletic Trainers' Association.

Prior to the start of the season the head coach of the sport, the student-athlete and the athletic trainer assigned to the sport must sit down and go over these guidelines so that it is clear to all involved what is expected of all three of these individuals in the conditioning process.

After meeting and reviewing these guidelines all three must sign this form to assure that this process has been completed.

Precautions

No sickle-trait athlete is ever disqualified, because simple precautions seem to suffice. For the athlete with sickle cell trait, the following guidelines should be adhered to:

1) Build up slowly in training with paced progressions, allowing longer periods of rest and recovery between repetitions.

2) Encourage participation in preseason strength and conditioning programs to enhance the preparedness of athletes for performance testing which should be sports-specific. Athletes with sickle cell trait should be excluded from participation in performance tests such as mile runs, serial sprints, etc., as several deaths have occurred from participation in this setting.

3) Cessation of activity with onset of symptoms [muscle 'cramping', pain, swelling, weakness, tenderness; inability to "catch breath", fatigue].

4) If sickle-trait athletes can set their own pace, they seem to do fine.

5) All athletes should participate in a year-round, periodization of strength and conditioning program that is consistent with individual needs, goals, abilities and sport-specific demands. Athletes with sickle cell trait who perform repetitive high speed sprints and/or interval training that induces high levels of lactic acid should be allowed extended recovery between repetitions since this type of conditioning poses special risk to these athletes.
6) Ambient heat stress, dehydration, asthma, illness, and altitude predispose the athlete with sickle trait to an onset of crisis in physical exertion.
a. Adjust work/rest cycles for environmental heat stress
b. Emphasize hydration
c. Control asthma
d. No workout if an athlete with sickle trait is ill
e. Watch closely the athlete with sickle cell trait who is new to altitude. Modify training and have supplemental oxygen available for competitions
7) Educate to create an environment that encourages athletes with sickle cell trait to report any symptoms immediately; any signs or symptoms such as fatigue, difficulty breathing, leg or low back pain, or leg or low back cramping in an athlete with sickle cell trait should be assumed to be sickling (7).
Taken from: " National Athletic Trainers' Association, Consensus Statement: Sickle Cell Trait and the Athlete".

4. Concussion Policy

a. Education and Awareness

Athletes

- At the first team meeting, or prior to their first practice/contest, student-athletes must read the CDC Concussion and Brain Injury Fact Sheet
- Student-Athletes must then read and sign the Concussion Fact Sheet Acknowledgement Form

Coaches

- Coaches will receive the CDC Concussion Fact Sheet for Coaches
- All coaches will complete the concussion education online course and quiz. This course entitled ConcussionWise PRO for Coaches can be found at https://sportsafety.com/concussionwise/. At its completion, coaches must print the certification of completion and submit to ATC.

- Coaches will be given a copy of the concussion management protocol and return to play.

b. Baseline Neurological Testing

- Prior to the season start, all athletes participating in contact sports must complete baseline testing.
- Baseline testing will only be required once per athlete as re-testing is recommended only every two years.
- ImPACT Testing (Immediate Post-Concussion Assessment and Cognitive Testing):
  - Computer based neurocognitive testing lasting 25-minutes
  - Measures visual and verbal memory, motor speed, reaction time, impulse control, and baseline symptoms
  - Provides individualized baseline data for use post- injury
  - The test will be administered by Allegany College of MD Athletic Training staff

c. On Field Assessment

- All practices and home games will have direct coverage by a Certified Athletic Trainer licensed in the state of Maryland or EMS.
- ACM teams travelling to away contests will have coverage by an onsite Certified Athletic Trainer
- Student-athlete suspected of having a concussion will be immediately removed from play and evaluated by the onsite ATC
- SCAT3 will be administered by the ATC which includes patient history, Glasgow coma scale, Maddocks Score, symptom evaluation, SAC score, head and neck evaluation, BESS testing, and coordination testing. Cranial nerve screen will be done. If possible Sideline ImPact will be utilized.
- Athletes exhibiting any red flag symptoms suggesting skull fracture or intra-cranial bleeding will be immediately referred to the emergency room for CT scan.
  -GCS <15 at 2 hrs post injury, suspected open or depressed skull fracture, sign of basal skull fracture, 2 or more episodes of vomiting, or 30+ min amnesia before impact.
- Athletes with symptoms lasting longer than 10 days and/or those with severe symptoms will be referred to local neurology clinic for evaluation.

d. Post-Injury Neurological Testing

- Athlete will be required to check in with ATC daily to monitor progress using the SCAT3
- Once asymptomatic, athlete will be re-tested using ImPACT software
- ATC will communicate via email with concussed student's professors, coaches, and disability office (OSWD) as needed to allow the athlete to have the best athletic and academic support possible
- Student athlete will refrain from all athletic and academic activity for at minimum the first 24-48 hours post injury
- After 24-48 hours, athlete will follow a return-to –learn plan individualized to their recovery timeline and level of injury, developed in conjunction with professors/coaches
- Once athlete is asymptomatic and has passed post-concussion ImPACT Testing, athlete will be allowed to begin the RTP progression
- Athlete must be cleared by ATC before beginning RTP progression

e. Gradual Return to Play Progression

- Return to play protocol requires at least 5 days after athlete is asymptomatic.
- Athlete must be asymptomatic for a minimum of 24 hours before beginning step-wise RTP.
- If the athlete begins having any post- concussive symptoms after beginning the RTP progression, he/she will discontinue activity until asymptomatic. At this point, athlete will re-start the RTP progression with Step 1.
- Stages are separated by a minimum of 24 hours.

- **Earliest potential time athlete can return to full competition is 7 days after injury.**

Step	Rehabilitation Stage	Functional Exercise	Objective of Stage
1	**No activity**	None. Complete cognitive and physical rest	Recovery
2	**Light aerobic exercise**	Stationary bike, walk, or swimming Intensity < 70% HRMax. No resistance training	Increase HR
3	**Sport-specific exercise**	Running and sprinting drills No head impact	Add movement
4	**Non-contact training**	Progress to complex training involving others without contact Begin resistance training	Coordination, exercise, cognitive load
5	**Full contact practice**	After medical clearance and successful completion of steps 1-4, participation in full practice unrestricted	Restore confidence, functional skills assessment by coaching staff
6	**Return to competition**	Normal game play	

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