Gentry Activities Handbook 2023-2024

August

2023

This Handbook contains general information for all Athletic and Activity groups in the Gentry School District, grades 7-12, who are governed by the Arkansas Activities Association.



Table of Contents

Introduction		2
Philosophy		3
Sponsors Responsibilities		3
Student Responsibilities		3
Student Eligibility		4
S.I.P.		5
Care of Equipment		10
Dismissal/Quitting Teams		10
Transportation		10
Requirements for Participation		11
Insurance and Risk of Participation		11
Medical Attention		11
Parent - Sponsor Conference		11
Individual Sponsor Rules		12
Programs Covered Under This Handbook		12
Overlapping Sports Seasons		12
Gentry Activities Drug Testing Policy	(signature required)	13
AAA Lightning Guidelines		14
AAA Concussion Guidelines and Procedures		15
MRSA Information		17
Heat Illness Information		18
Sudden Cardiac Arrest Information		24

Gentry Activity Handbook

Introduction

Experience Gentry Activities

Activities and Athletics are an integral part of our school culture. This handbook is designed to introduce you to the extra curricular programs that are offered at GHS, as well as provide you with other important information, documents and resources. I encourage you to become involved with groups of students and teachers who share your interests in a wide variety of areas including art, music, theater, social issues, athletics, and entertainment.

Most clubs are open to all students. You should select activities that fit into your schedule and spark your interests. The programs provided by Gentry Public Schools:

- Are conducted in a safe and healthy environment
- Empower students to explore their talents, skills, interests and values
- Prepare students to become responsible, informed and productive students
- Encourage critical thinking, decision making and problem-solving skills by emphasizing process and discovery
- Promote consideration for others, responsibility, and self-discipline and
- Develop students who are lifelong learners and positive role models

Have fun and get involved!

Brent Hester

Athletic Director

Philosophy

Gentry School District's activity philosophy is to maintain a broad based program that will afford all students an opportunity for safe participation in their activity of choice.

The Activities Department will stand united when it comes to supporting each other's programs. This means that we will encourage our GHS students to be active participants in all GHS activities that are available to them.

The Activities Department will try to guide our student-athletes into programs, so that we can help them to make wise decisions.

The chief purpose of the activities is to promote the fullest development of the abilities, talents, character, and personality of each individual. Each program will strive to train students to think, work, and to do their best.

The conduct of sponsors and students is closely observed by many; therefore, it is important that everyone's behavior be above reproach. Appearance, expression, and actions always influence people's opinions of the sponsor, student, activity, and the school itself.

Sponsors Responsibilities

The sponsors should remember that they are on constant public display as representatives of their school. They are also responsible for the student's safety, welfare, and education while they are in the program. Sponsors should:

- 1. Develop respect by example in appearance, manners, behavior, language, and conduct during practice or event.
- 2. Maintain individual and group discipline and control.
- 3. Be fair, understanding, tolerant, sympathetic, and patient with team or group members.
- 4. Use all possible ethical means of motivating, emphasizing the values of a competitive spirit, acceptable personal behavior, decision-making and lasting impact these values can have on each individual.

Student Responsibilities

Our students are in school to secure the best education they are capable of achieving. Deciding to take advantage of the other half of education plays a significant part in your total educational development. However, with this decision also comes certain responsibility for the success of each program. Students should:

1. Strive to achieve sound citizenship and display control, honesty, cooperation, dependability, and respect for others.

- 2. Learn the spirit of hard work and sacrifice.
- 3. Desire to excel to the limits of their potential.
- 4. Show respect for both authority and property.

Student Eligibility

The Arkansas High School Activities Association, of which Gentry is a member, is a voluntary, nonprofit, educational association of junior and senior high schools responsible for supervising and regulating interscholastic activities.

One of the primary functions of the Arkansas Activities Association is to establish eligibility standards that must be met by all students who represent their school in interscholastic activities.

Eligibility is a privilege to be granted by the school allowing students to participate in interscholastic activities. Eligibility is not a student's right by law. Precedent setting legal cases have determined that eligibility is a privilege to be granted only if the student meets all standards adopted by the school.

Eligibility Rules are as follows:

Junior High (Academic Eligibility)

- ❖ First semester ninth grade students must pass four academic classes to be eligible second semester of the ninth grade.
- ♦ Ninth grade students must meet the senior high academic eligibility by the end of the second semester in order to be eligible to participate in the fall semester of their tenth grade year. Note: Second semester 9th graders whose GPA is less than a 2.0, will be enrolled in SIP.

Senior High (Academic Eligibility)

- ❖ The requirement for senior high (10 -12) eligibility shall include:
 - Passing four academic courses; AND
 - A minimum GPA of 2.0, based on the previous semester.

DragonFly

The Arkansas Activities Association uses DragonFly to house all student athlete documents. These include:

- Arkansas Activities Association Sports Medicine Fact Sheet
- PPE History Form
- PPE Physical Examination Form
- AAA Participant Agreement, Consent, Release, and Venue Form

To meet requirements for eligibility each athlete must have all forms completed and uploaded to their personal DragonFly account and must be listed on the Gentry High School DragonFly roster.

Supplemental Instruction Plan

To participate in interscholastic competition, students passing four academic courses but failing to meet the 2.0 GPA requirement, must be enrolled in and attending 100 minutes per week of a Supplemental Instruction Program, meeting established criteria and approved by the AAA.

Academic Course - An academic course is one for which class time is scheduled, which can be credited to meet minimum requirements for graduation, which is taught by a teacher required to have state certification in the course, and which has a course content guide approved by the Arkansas Department of Education.

Age Eligibility

- ❖ A Junior High student is NOT eligible if the student's 16th birthday is on or before September 1st.
- ❖ A Senior High Student is NOT eligible if the student's 19th birthday is on or before September 1st.

Gentry High School Supplemental Instruction Program Plan

- I. Describe your plan to offer the required 100 minutes of supplemental instruction each week outside the regular school day for the students and how you will monitor attendance.
 - Implementation of required 100 minutes per week
 - The student will be in S.I.P. 100 minutes a week outside of school time on Wednesday afternoon from 5:00 pm 6:40 pm.
 - Certified teacher will be present.
 - Students must sign in and stay for the entire 100 minutes.
 - Certified teacher will notify the Dean of Students or Athletic Director if there is an absence.
- II. How will factors contributing to inadequate academic performance by students in the supplemental instruction program be assessed? Explain what assessment tools will be used.

Assessment Tools

- Report Card Grades from the previous semester.
- Current Grade reports from teachers weekly during the semester.
- Personal, or E-Mail Contact and interviews with teachers during the semester.
- Attendance Records
- Discipline Records
- Classes that are failed, a pre-test will be given to assess the student.
- III. Describe how the program will be designed to specifically address the needs of the students in the subject areas where assistance is needed (i.e., math, science, social studies, language arts, etc.). Include in your explanation whether or not you will use classroom teachers, volunteers, and/or students who have demonstrated knowledge in the identified subject areas. If student tutors are used, what criteria will be used to identify these students?
 - Design of Program: Staff personnel will monitor work done during S.I.P. Students will be responsible for bringing books, materials and assignments to be done during S.I.P. The assignments will be in the subject areas identified as areas where assistance is needed.
 - Classroom teachers, volunteers, or student tutors may be used as needed. Volunteers and student tutors will be chosen or rejected by the supervisors of S.I.P. based on proven proficiency in the subject areas and the ability to work productively with the students involved.
 - Each semester, Gentry High School provides "after-school" tutoring in the 4 core subject areas, each meeting one day per week, and facilitated by a certified core area teacher.
 - S.I.P. students may attend any or all of these sessions for time credit.
 - Tutoring supervisors will provide S.I.P. students with a voucher to verify the amount of time spent in tutoring.
 - Students must submit their vouchers to the S.I.P. supervisor for approval and documentation.

Example: Student A is struggling in and has a poor grade in Algebra. Student A will attend "after-school" Math tutoring on Monday from 3:30 p.m. - 4:45 p.m. (45 minutes). Student A will then attend SIP at its regularly scheduled time on Wednesday evening to complete the remaining 55 minutes. Conversely, a student could attend SIP on Wednesday evening for 70 minutes,

and then complete the remaining 30 minutes in a Thursday afternoon tutoring session.

- IV. Who will contact the student's parents or guardians to explain the supplemental instruction program and how this process will be documented.
 - Contact with parents: Certified teacher of S.I.P will make contact with the parents/guardians of the students in the program by mail, telephone, or personal interview to explain the program. Written documentation will be maintained in an S.I.P. log by the certified teacher making the contact. Written documentation will include an S.I.P. contract form signed by the identified student and the student's parents/ guardian. Documentation may also include notes compiled by the certified teacher summarizing conversations held with the parent/guardian.
- V. Explain the procedures that will be used to monitor student progress while the students are in the supplemental instruction program. Be certain to include as one of the requirements a progress report to be filed each grading period by the classroom teachers in the subject areas where the students are experiencing difficulty. The supplemental instruction program director is required to keep a copy of these progress reports on file.
 - Monitoring of student progress: The student's progress will be monitored by the supervisors and documented in the S.I.P. log.
 - Progress reports filed each grading period (9 weeks) by the classroom teachers in those subjects where difficulties are experienced.
 - S.I.P. will contact current teachers periodically during the semester.
 - Personal, or e-mail, contact and interviews with teachers during the semester.
- VI. Explain the procedures you will use during the semester and at the end of each semester (December/ June) to determine if the students in the supplemental instruction program maintain eligibility. Include in the explanation of how the requirements in Section 5.03 of the rules and regulations will be monitored.
 - At the end of each semester the certified teacher will check the student's grades along with the athletic director. To assure the student has increased one tenth of a grade point or has achieved a 2.0 G.P.A. The student cannot be in S.I.P. two consecutive semesters

- without increasing one tenth of a point in his/her G.P.A. The student also cannot be in S.I.P. for more than two consecutive semesters.
- The athletic director shall monitor any student in S.I.P. for the following:
 - Criminal Convictions(Felony)
 - Unexcused Absence in regular School day. If the student misses S.I.P. on Wednesday afternoons that student must participate in their 100 minutes for that week to be eligible.
 - Suspended out of School

If one of the above violations occurs, the athletic director will notify the sponsor immediately and the student will be ineligible until the end of the semester. However, the student will remain in the S.I.P. program until the end of the semester. If the student willfully withdraws from the S.I.P. program, the student will become ineligible at that point during the season. **Note:** Any of the above infractions by second semester 9th graders may be waived at the discretion of the Athletic Director, Principal and SIP Coordinator.

PLEASE KNOW AND ABIDE BY THE FOLLOWING RULES

- 1. **NONE** OF THE FOLLOWING ITEMS ARE ALLOWED
 - ELECTRONIC MUSIC DEVICES/EARBUDS
 - VIDEO GAMES OR HANDHELD ELECTRONIC DEVICES
 - MAGAZINES/COMIC BOOKS
 - PLAYING CARDS/GAMES
 - SCHOOL CELL PHONE RULES APPLY

- 2. INDIVIDUAL SNACKS/DRINKS MAY BE ALLOWED
 - PLEASE CLEAN UP ALL MESSES
- 3. ALL STUDENTS ARE EXPECTED TO BE ON TIME AND REMAIN FOR THE DURATION
- 4. EACH STUDENT IS RESPONSIBLE FOR SIGNING IN AND OUT
- 5. STUDENTS ATTENDING TUTORING SESSIONS MUST PROVIDE A SIGNED VOUCHER FOR VERIFICATION.

Care of Equipment

The students will be issued school owned equipment. In order to give the student a sense of responsibility and appreciation of his or her equipment, each will be held accountable for the abuse or loss of it. Any equipment lost or stolen must be paid for by the student in whose name it was checked out.

The following guidelines, if adhered to, will reduce the chances for lost or stolen equipment.

- 1. Do not exchange or loan any of the equipment checked out to you to another student.
- 2. Except when you are in visual contact, keep your locker closed and locked at all times. This includes when you're in the shower.
- 3. Any loss of equipment should be reported immediately to the sponsor. Do not wait until the end of the season.
- 4. Any equipment that does not fit properly or that has any defective parts should be reported to the sponsor immediately. Do not use the equipment until the necessary adjustments have been made. This is for your protection.

Dismissal/Quitting Teams

If a student chooses to quit a team or is dismissed from a team due to the breaking of team rules, the athlete will not be allowed to go to the following or next sport until the sport that he/she quit is finished with their season.

Transportation

- 1. All out of town trips must have the approval of the activities director.
- 2. Sponsors should teach students to respect school property and take care of buses.
- 3. After trips, the sponsor should check the bus and return it in a clean condition and report any damage.
- 4. The students should be properly supervised on all trips.
- 5. Strive to return home as soon as possible, especially on school nights.
- 6. Overnight trips will be allowed only by special permission from the activities director and will be discouraged unless absolutely necessary.
- 7. School transportation will be used on all school trips.
- 8. The school will pay for mileage if a personal car has to be used.

- 9. Students must dress properly on trips. They must follow school rules.
- 10. Any person not associated with the team or group cannot travel, eat, or room with the team or group without prior approval from the activities director.
- 11. All students travel and return with the team or group unless the following conditions exist:
 - A. Parents sign them out with sponsor.
 - B. Emergency Situation.

Special note about Transportation

No student-athlete will be allowed to ride to or from a school-sponsored activity with anyone other than school provided transportation, or his/her own parent/guardian. Parents may not request permission for their student-athlete to ride to or from a school-sponsored activity with another student-athlete or parent.

Requirements for Participation

- 1. Parent's signature on all required consent forms. Appendix I
- 2. Passing a physical examination for the activities. Appendix II
- 3. Meet eligibility guidelines set by the Arkansas Activities Association.

Insurance and Risk of Participation

All students and parents must realize and accept the risk of serious injury which may be a result of participation in an extracurricular activity. The Gentry School District does carry supplemental insurance to help cover student injuries. Parents need to realize that the schools insurance is a secondary or excess average and may not cover all claims. Please see the Appendix for Insurance forms and procedures.

Medical Attention

The Gentry School District does provide a Certified Athletic Trainer for the purpose of evaluating and treating athletic injuries. Gentry will recognize the decisions of the Athletic Trainer as the sole authority on whether an athlete is cleared to return to participation. Parents reserve the right to visit/consult a physician at any time.

SPECIAL NOTE: Concussion management awareness is higher than in the past.

Recognition of proper signs and symptoms has caused the number of reported cases to increase in recent times. Our Athletic Trainer is fully qualified to recognize the signs and symptoms of a concussion and is in full compliance with the guidelines established by the

Arkansas Activities Association (AAA). He/she will be the final authority on all return to play procedures established and required by the AAA.

<u>Parent – Sponsor Conference</u>

A parent may call for an appointment in advance by contacting the school for a scheduled time. Coaches are not available for conferences before or after practice or events. If after a conference with the head coach, a parent still has concerns, they should follow the proper chain of command:

- 1. Athletic Director
- 2. Superintendent
- 3. School Board

Individual Sponsor Rules

Coaches may establish additional rules and regulations with the approval of the Athletic Director for their respective activities. These rules as pertaining to a particular activity must be given in writing to all students who are participating in that activity and explained fully at the start of the season. Penalties for violation of these rules will also be in writing and shall be administered by the sponsor.

Overlapping Sports Seasons

Athletes may not start a second sport until the first sport's season is complete.

There may be an exception given to this policy if all of the following criteria are met:

- The two head coaches, the Athletic Director, and the parent(s) all agree
- it is best for the athlete
- it is crucial for one or both teams
- it is not a detriment to either team

9th graders are the other possible exception to this rule. Once the jr high season ends, if a 9th grader moves to the sr high team while a new season sport begins he/she may be eligible to participate in both sports as long as it is agreed upon by both head coaches, the parents, and the Athletic Director.

Programs Covered Under This Handbook

Marching Band Grades 8-12

Concert Band Grades 8-12 Choir Grades 7-12 Cheerleading Grades 7-12 Boys Athletics Grades 7-12 Girls Athletics Grades 7-12

Gentry Activities Drug Testing Consent Form

- 1. Each student must have a signed parent/guardian consent form as a requirement for participation in any activity. Failure to produce a signed consent form will keep the student from participating until a form is signed and submitted to the school and sponsor.
- 2. The random selections and testing are conducted by an outside company.
- 3. All student test results and test correspondence will be completely confidential between the school district, the student, and parents/guardians.
- 4. All students who are actively participating/enrolled in school activities will be subject to random urinalysis testing.
- 5. Testing will be conducted without notification.
- 6. All testing is conducted on site (GHS) by a professional.
- 7. Male and female students are tested in separate locations and afforded complete privacy while producing a sample.
- 8. Consequences for a positive student test will proceed as follows:
 - A. When the student first tests positive they will immediately be suspended from participating in any activity. The student may return to the activity when they return with a negative screening test by an approved Doctor or clinic. The expense of this screening is the parent/guardian's responsibility.
 - B. After reentering any activity following the first positive test, the student will be a part of the next three random screenings.
 - C. A second positive test will result in an immediate suspension from any activity for a full calendar year.
 - D. A third positive test will result in the student being permanently suspended from all activity privileges.
- 9. Parents can request the sample be sent off for another set of tests to be run. If it comes back positive the cost will be charged to the parents. If it comes back negative the school will cover the cost. In either case the student will be able to continue in the activity until the results are available.

Your signature indicates that you have received and read a copy of the Gentry Activity Drug Screening Policy and the Activity Handbook, and that you will follow all the guidelines presented. Your signature also indicates your consent to comply with all aspects of the drug screening procedure(s) for as long as you are enrolled in Gentry Schools.

NOTE: Students enrolled or participating in athletics/activities will receive this form one time (the first time they enroll). A signed form will remain valid and on file with the school for as long as the athlete attends – through graduation.

Student Signature			
Grade	Date		
Parent Signature		Date	

AAA Lightning Guidelines and Procedures

The following procedures will be put in place for lightning disturbances or other weather related issues:

Lightning Delay Procedures

- 1. Use the AAA Handbook/NFHS Rulebook as a guide to implement lightning delay procedures.
- 2. When thunder is heard or a cloud-to-ground lightning bolt is seen or an approved lightning/storm detector indicates that lightning is within eight (8) miles of the venue, the thunderstorm is close enough to strike your location. Suspend play and take shelter immediately.
- 3. Adhere to the 30 minute rule before resuming play, regardless of the point of interruption.
- 4. Communicate with host school administration, visitor administration, and head coaches of both teams as conditions change.
- 5. Attempt to finish the contest, if at all possible, once lightning disturbances subside.
- 6. It is ultimately the responsibility of the game officials in communication with the host site administration as to whether to suspend the contest or extend the delay additionally.

^{*}Refer to page 35 of the NFHS Sports Medicine Handbook for more information regarding lightning safety.

AAA Concussion Guidelines and Procedures

The Arkansas Activities Association Board of Directors has adopted the following guidelines for dealing with a concussed student athlete:

- 1. No athlete should return to play or practice on the same day of a concussion.
- 2. Any athlete suspected of having a concussion should be evaluated by an appropriate health-care professional that day (MD, DO, Nurse Practitioner, Certified Athletic Trainer, or Physician Assistant).
- 3. Any athlete with a concussion should be medically cleared by an appropriate health-care professional prior to resuming participation in any practice or competition.
- 4. After medical clearance, return to play should follow a stepwise protocol with provisions for delayed return to play based upon the return of any signs or symptoms.

Concussions at all levels of sports have received a great deal of attention in the past few years. The attention has increased even more so over the past year, culminating with the NFL, NCAA, and NFHS testifying before the U. S. Congress about what each organization is doing to protect athletes from concussions. Over the past year and a half the Arkansas Activities Association has taken a proactive stance by providing our member schools with educational resources dealing with concussions. During the 2009-2010 school year, the AAA Sports Medicine Advisory Committee recognized concussion as our Sports Medicine Point of Emphasis. Concussion awareness was included in all required sports rules meetings.

A concussion is a brain injury that results in a temporary disruption of normal brain function. A concussion occurs when the brain is violently rocked back and forth or twisted inside the skull as a result of a blow to the head or body. Most concussed athletes do not lose consciousness, yet they often show other common signs, symptoms and behaviors of concussion. Adolescent athletes are particularly vulnerable to the effects of concussion. Once considered little more than a minor "ding" on the head, it is now understood that a concussion has the potential to result in short- and long-term changes in brain function. Continued participation in any sport following a concussion can lead to worsening concussion symptoms, as well as further injury to the brain – and even death.

The AAA strongly believes that student athletes who show signs/symptoms of a concussion should be removed from play.

The NFHS Sports Medicine Advisory Committee (composed of leading doctors, athletic trainers, research specialists and state association staff) developed new guidelines for

concussion management of a student exhibiting signs, symptoms or behaviors consistent with a concussion. Those guidelines will go into all NFHS rules books and will be in effect starting with the 2010-2011 school year. They have also been included in all required AAA sports rules meetings. The language will read:

Any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion (such as loss of consciousness, headache, dizziness, confusion, or balance problems) shall be immediately removed from the contest and shall not return to play until cleared by an appropriate health-care professional.

Behavior or signs observed indicative of a possible concussion:

- Loss of consciousness
- Appears dazed or stunned
- Appears confused
- Forgets plays
- Unsure of game, score or opponent
- Moves clumsily
- Answers questions slowly
- Shows behavior or personality changes
- Cannot recall events prior to or after the injury

Symptoms reported by a player indicative of a possible concussion:

- Headache
- Nausea
- Balance problems or dizziness
- Double or fuzzy vision
- Sensitivity to light or noise
- Feeling sluggish
- Feeling foggy or groggy
- Concentration or memory problems
- Confusion

In order for the NFHS rule to be effective coaches, officials, administrators, and health-care professionals must know and recognize their roles. The rule calls for the immediate removal of the participant from the contest. It is important to note that the responsibility of the official is limited to activities that occur on the field, court, or mat.

Once the participant has been removed from a contest due to a suspected concussion, the coach or appropriate healthcare professional(s) assumes full responsibility for the athlete's further evaluation and safety.

The safety of the student athlete is of paramount concern during any athletic contest. The new rules adopted by the NFHS and the AAA should provide a framework for the

effective recognition and management of a concussed student athlete. We encourage every coach and official to view the free new NFHS 20-minute online coaches education course – *Concussion in Sports* – *What You Need to Know*, it is a useful tool for providing concussion education, the course also contains supplemental information from the NFHS and the CDC. The free course is also appropriate for administrators, health-care providers, parents, and students. It can be found at www.nfhslearn.com.

*Refer to page 91 of the NFHS Sports Medicine Handbook for more information regarding concussions.

MRSA Procedures Defense against MRSA

- Athletes MUST wash their hands prior to any athletic participation.
- Athletes should have all cuts and scrapes covered prior to participation. After participation, clean the wound and recover.
- DO NOT allow athletes to share water bottles, towels, razors, or athletic equipment. (use cups disposable drinks, individual towels or disposable towels, and make sure athletes are wearing the equipment that was issued to them.
- Make alcohol based hand sanitizer available during practice and games.
- Athletes MUST take showers after practice and games.
- Disinfect ALL balls used in practice or games by spraying them with Lysol.
- Clean locker rooms, meeting areas, indoor workout facilities, courts, and cheerleading mats weekly with an FDA approved solution that targets MRSA (wrestling mats should be cleaned daily)
- If you have turf in your indoor facility, check with the manufacturer to see which disinfectants are recommended.
- Wash all soft good items daily (towels, practice gear, etc.)
- Specific equipment for each sport should be cleaned weekly (volleyball knee pads, football equipment, catcher's gear, etc.
- Weight rooms should be equipped with disinfecting wipes and hand sanitizer (wipe down weights after each use, encourage athletes to clean hands, cover and tears on weight benches, athletes should wear shirts while working out)
- Any athlete with signs and symptoms of an infection should be isolated from the rest of the team immediately and referred to a licensed healthcare professional, such as a school nurse, certified athletic trainer, or physician

**Refer to page 100 of the NFHS Sports Medicine Handbook for more information regarding skin conditions and infections.

Basic Heat Illness Information

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.

While exertional heat illness (EHI) is not always a life-threatening condition, exertional heat stroke (EHS) can lead to fatality if not recognized and treated properly. EHI is most commonly composed of four different conditions including exertional heat stroke, heat exhaustion, heat syncope, and heat cramps. Each condition presents in different ways, and it is imperative to understand the distinctive signs and symptoms of each. As the word heat implies, these conditions most commonly occur during the hot summer months; however, EHI can happen at any time and in the absence of high environmental temperatures. Through proper education and awareness, all forms of exertional heat illness can be prevented, recognized, and treated correctly.

Exertional Heat Stroke (EHS)

- Severe condition characterized by core temperature > 40° C (104° F), central nervous system (CNS) dysfunction, and multiple organ system failure induced by strenuous exercise, often occurring in the hot environments $\frac{3-4}{2}$
- EHS is a medical emergency and can be a fatal condition if the individual's core body temperature remains above 40°C for an extended period of time without the proper treatment³

Signs and Symptoms

Core body temperature > 40°C, tachycardia (increased heart rate), hypotension, sweating, hyperventilation, altered mental status (disorientation/confusion), dizziness, irrational behavior, irritability, headache, inability to walk, loss of balance/muscle function, vomiting, diarrhea, collapse, seizures, and coma. ¹⁻⁴

It is recommended when performing temperature assessment, ONLY a rectal temperature should be used with a hyperthermic individual; it is the only method for an accurate and immediate temperature assessment if an ingestible thermometer was not used. Other temperature devices (tympanic, oral, skin or axillary) may give false readings. 1-2,4

Predisposing Factors

Vigorous activity in hot-humid environment (usually lasting longer than 1 hour), lack of heat acclimatization, poor physical fitness, dehydration, sleep deprivation, fever or illness, warrior mentality, high pressure to perform and heavy equipment/uniform. ¹⁻²

Treatment

Rapid and aggressive whole-body cooling is the key to survival of exertional heat stroke

- The fastest way to decrease body temperature is to remove excess clothing and equipment and immerse the body into a pool or tub of cold water -- cold water immersion -- (35-59°F) 3-4
- The individual should be immersed within 30 minutes for optimal results and submersed until rectal temperature is below 38.3-38.9°C (101-102°F)
- After cooling, the individual should then be transported to a medical facility for monitoring of possible organ system damage ²⁻⁴
- For more information please see <u>KSI Cold Water Immersion Cooling</u> <u>Guidelines</u>

Return-to-Play

Return to activity should be determined by a physician. Individuals should avoid exercise for a minimum of one (1) week after release from medical care. Individuals should start with a gradual return to activity under the supervision of a qualified health professional. 1-2

Prevention

To prevent EHS, individuals should adapt to exercise in the heat gradually over 10-14 days (acclimatization) by progressively increasing duration and intensity of work, incorporate rest breaks, minimize amount of equipment/uniform worn in hot-humid weather, provide and encourage adequate fluid consumption. ¹⁻³

*IT IS IMPORTANT TO REALIZE THAT EHS IS DIFFERENT FROM CLASSICAL HEAT STROKE, WHICH USUALLY AFFECTS THE ELDERLY AND CHILDREN DURING PROLONGED ENVIRONMENTAL HEAT EXPOSURE o View KSI Exertional Heat Stroke Survival Kit for further assistance.

Heat Exhaustion

- Most common heat-related condition observed in active populations ²
- Defined as the inability to continue exercise due to cardiovascular insufficiency and energy depletion that may or may not be associated with physical collapse $\frac{1-4}{2}$

Signs and Symptoms

Fatigue, weakness, heavy sweating, dehydration, sodium loss, fainting, dizziness, irritability, headache, hyperventilation, nausea, vomiting, decreased urine output and blood pressure, decreased muscle coordination, and core temperature between 36-40°C ²⁻⁴

Obtain a rectal temperature and assess central nervous system function to rule out exertional heat stroke ($< 40^{\circ}$ C). 1.3

Predisposing Factors

Exercising in hot and humid environment (air temp > 33°C), inadequate fluid intake (dehydration), and body mass index > 27kg/m^2

Treatment

To treat exertional heat illness, move individual to cool/shaded area, remove excess clothing, elevate legs to promote venous return, cool with fans, rotating ice towels, or ice bags. Individual should respond quickly to treatment, if not heat stroke could be suspected. Provide oral fluids for rehydration. 1-4

Return-to-Play

Returning to activity the same day of episode is not prudent or advised. Individuals should wait 24-48 before returning to activity and should gradually increase intensity and volume of exercise 1-2,4

Prevention

To prevent EHI, individuals should adapt to exercise in the heat gradually -- acclimatize - over 10-14 days by progressively increasing duration and intensity of work $\frac{1,3}{2}$

Heat Syncope

- Also known as orthostatic dizziness.
- Refers to a fainting episode that someone can experience in high environmental temperatures, usually during the initial days of heat exposure. 1,3

Signs and Symptoms

Dizziness (vertigo), weakness, tunnel vision, pale or sweaty skin, nausea, decreased pulse rate, and normal exercising rectal temperature. 1.3

Predisposing Factors

Standing for long periods of time; usually wearing a uniform. Immediately after cessation of activity or after rapidly standing from prolonged resting or sitting posture. 1.3

Treatment

- Move person to shaded/cool area, monitor vital signs, elevate legs to promote venous return, and rehydrate ³
- Individuals who experience heat syncope will recover relatively quickly, within 10-15 minutes. $\frac{3}{2}$

Return-to-Play

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.

Prevention

Heat syncope often occurs in individuals that are unacclimatized to the heat (the body is not used to increased environmental temperatures) therefore, individuals should adapt to exercise in the heat gradually acclimatize over 10-14 days by progressively increasing duration and intensity of work $\frac{1,3}{2}$

Heat Cramps (Exercise-Associated Muscle Cramps)

- Defined as an acute, painful, involuntary muscle contraction usually occurring during or after intense exercise, often in the heat, lasting approximately 1-3 minutes $\frac{1-4}{2}$
- Often occurs in the muscles of the legs, arms, or abdomen ²

Signs and Symptoms

Dehydration, thirst, sweating, transient muscle cramps, and fatigue 3-4

A precursor to the initial onset of cramps involves twitches or fasciculations $\frac{1-2}{2}$

Predisposing factors

Exercise-induced muscle fatigue, excessive body water loss and excessive sodium loss (sweating) $\frac{2.4}{}$

Treatment

To treat heat cramps: rest, stretch and massage with muscle in full length position, and provide fluids or food with salt content such as a sports drink $\frac{1-4}{2}$

Return-to-Play

Individuals can return to play usually during the same exercise session with rest and fluid replacement $\frac{1-2}{2}$

Prevention

To prevent heat cramps, individuals should maintain fluid and salt balance, especially when exercising in the heat and sweat losses are great.

Supplemental/extra sodium may be needed. 1-2

Exertional Sickling

Sickle cell trait (SCT) is a genetic variation and usually benign. About 1 in 12 African Americans and about 1 in 2,000 to 1 in 10,000 Caucasians have SCT. While not the same as sickle cell anemia, SCT can cause exertional sickling also termed explosive rhabdomyolysis, during intense exercise. Exertional sickling occurs when the sickled red blood cells "logjam" in the blood vessels, which can cause fatal ischemic/exertional rhabdomyolysis. 5.6

Signs and Symptoms

Usually occur in the first few minutes of high intensity exercise

Athlete reports of increasing pain and weakness in the muscles - especially in the lower extremity. This might be perceived as "cramping" but is much more diffuse than heat cramps. Heat cramps normally cause the athlete immediate acute pain that immobilizes them, while exertional sickling is more of a strong ischemic pain. ^{5,6}

Legs become weak and unstable, athletes normally collapse and most often are mistaken for a case of heat stroke, heat exhaustion or heat cramps. $\frac{5.6}{}$

Predisposing factors

Heat, dehydration, altitude, asthma, high intensity exercise with few rest intervals 5.6

Treatment

Give supplemental oxygen if possible ³

Cool the athlete, if needed

Call 911 and explain to doctors the urgent care needed to prevent explosive rhabdomyolysis $\frac{5.6}{}$

Return-to-Play

Blood samples must return to normal (specifically creatine kinase and liver/renal markers). $\frac{5.6}{}$

In mild and well-managed cases athletes may be able to return to play the next day, in severe cases, extended stay in a hospital may be warranted and return to play may take weeks, if at all. $\frac{5}{}$

Prevention

Sickle cell trait is genetic. Athletes with a family history of sickling should be tested.

Those with known SCT or a high probability of SCT should be treated as follows: 5.6

Allow a greater time for build up in training

Provide breaks as needed or longer "breathers" between intervals and allow SCT athletes to set their own pace

No all-out exertion lasting longer than 2 minutes

Have supplemental oxygen ready if at high altitudes

Be aware of the signs and symptoms and tell the athlete to report them immediately if they begin to experience these

AAA Sudden Cardiac Arrest Guidelines

- 1. Every coach and registered volunteer must receive training on prevention of sudden cardiac death every three years.
- 2. Every athlete and parent must read and sign "Cardiac Screening for Athletes and Parents" Information sheet every year.
- 3. Any athlete experiencing syncope (fainting), chest pains, shortness of breath that is out of proportion to their level of activity, or an irregular heart rate should not return to practice or play until evaluated by appropriate healthcare professional (MD, DO, APN, Certified Athletic Trainer).
- 4. The referred athlete must be medically cleared by an appropriate healthcare professional prior to return to play/practice.

Sudden cardiac death (SCD) is the leading cause of death in young athletes on the playing field and is typically the result of undiagnosed structural or electrical cardiovascular disease. SCD is defined as the sudden death of an individual during or within 1 hour after exercise due to a cardiovascular disorder.

Most athletes who suffer from sudden cardiac arrest do not have any symptoms prior to the clinical event. If the athlete does express any warning signs or symptoms, they should be evaluated by an appropriate healthcare professional.

To avoid potentially fatal delays in resuscitation, a collapsed and unresponsive athlete should be treated as having had a cardiac arrest until a noncardiac cause of collapse can be clearly determined or the athlete becomes responsive. Brief seizure-like activity in a collapsed athlete should be assumed to be due to SCA. A High suspicion of SCA must be

maintained for any collapsed and unresponsive athlete and an AED applied as soon as possible for rhythm analysis and defibrillation if indicated.

References:

- 1. Armstrong, LE. 2003. Exertional Heat Illnesses. In Exertional Heatstroke: A Medical Emergency, edited by Douglas J. Casa and Lawrence E. Armstrong, 29-56. Illinois: Human Kinetics Publishers, Inc.
- 2. <u>American College of Sports Medicine Position Stand; Exertional Heat Illness during Training and Competition. Medicine & Science in Sports & Exercise.</u> 2007; 556-572
- 3. Binkley, H., Beckett, J., Casa, D.J., Kleiner, D.M., Plummer, P.E. 2002.

 National Athletic Trainers' Association Position Statement: Exertional
 Heat Illnesses. Journal of Athletic Training.37 (3):329-343.
- 4. <u>Inter-Association Task Force on Exertional Heat Illness Consensus</u> Statement
- 5. Eichner, RE. Sickle Cell Trait. J of Sport Rehab. 2007; 16: 197-203.
- 6. <u>Inter Association Task Force Consensus Statement: Sickle Cell Trait and the Athlete. 2007</u>

^{*}Refer to page 42 of the NFHS Sports Medicine Handbook for more information regarding heat illness