EMERGENCY MEDICAL SITUATIONS

COACH/SPONSOR
QUICK REFERENCE GUIDE

Approved KSHSAA Sports Medicine Advisory Committee 10/2018

ABOUT THIS GUIDE

In the high school/middle school setting, coaches/sponsors are often the first and only personnel available to initiate the emergency action plan and respond to a potentially life threatening medical situation involving their student participants. The purpose of this guide is to provide general guidance for coaches and sponsors in responding to the most common activity participant emergency situations UNTIL TRAINED HEALTHCARE PROFESSIONALS ARRIVE ON THE SCENE.

This is not intended to be a comprehensive guide, but rather an overview for coaches and sponsors relative to more common emergencies they may encounter. It is recommended coaches/sponsors stay current with training and education and follow local policy. This guide does not establish required action, but suggests common best practice in dealing with potential emergency situations.

RECOMMENDATIONS FOR COACHES AND SPONSORS:

1. Work with your school administration and be sure you have an EMERGENCY ACTION PLAN (EAP) for every venue in which your teams participate (practices and contests).
2. REVIEW and REHEARSE the EAP prior to the start of your season. Involve your local emergency medical personnel in the rehearsal.
3. Get certified/trained in CPR and Automated External Defibrillator (AED) administration.
4. Be sure an AED is onsite for every practice and contest.
5. Know your at-risk participants such as those participating with asthma, allergies, sickle cell trait, diabetes, previous history of concussions and a previous history of heat illness.
6. Know all of the rules – both KSHSAA and NFHS related to student safety in your activities.

HAVE A PLAN.

PRACTICE YOUR PLAN.

BE PREPARED.

EMERGENCY RESPONSE INFORMATION/PHONE NUMBERS

EMS/AMBULANCE: 911 OR OTHER DESIGNATED EMERGENCY NUMBER:

HEAD COACH: _____ **ASST. COACH:** _____

ASST. COACH _____ **ASST. COACH:** _____

ATHLETIC TRAINER: _____ **PRINCIPAL:** _____

TEAM PHYSICIAN: _____ **ATHLETIC DIRECTOR:** _____

SCHOOL NURSE: _____ **HOSPITAL:** _____

WEATHER SERVICE: _____ **OTHER:** _____

NEAREST AED: _____

CPR/AED CERTIFIED PERSONNEL ON SITE: _____

PERSON RESPONSIBLE TO CALL AMBULANCE*: _____

PERSON RESPONSIBLE TO MEET AMBULANCE: _____

PERSON(S) RESPONSBILE FOR COLD WATER IMMERSION TUB: _____

PERSON(S) RESPONSIBLE FOR INDIVIDUAL EMERGENCY MEDS (INHALERS, EPI-PENS ETC.): _____

PERSON(S) RESPONSIBLE FOR CROWD CONTROL/SECURITY: _____

***When calling 911 or the designated emergency number, be prepared to:**

- Give name
- Type of emergency
- Care being provided
- Exact location
- Condition of person
- Ambulance entrance location

Caller should never hang-up until told to do so by the dispatcher.

SUDDEN CARDIAC ARREST (SCA)

Sudden Cardiac Arrest is the #1 cause of sudden death in student-athletes during activity. SCA is a potentially fatal condition in which the heart suddenly and unexpectedly stops beating. The unexpected loss of heart function causes blood to stop flowing to the brain and other vital organs which results in loss of consciousness, stoppage of breathing and potentially death.

SIGNS & SYMPTOMS

♦ Sudden or immediate collapse ♦ Loss of consciousness/not responding ♦ No pulse ♦ No breathing

SCA typically occurs without warning, however if warning signs are present, they typically include:				
– Fatigue	– Fainting/blackouts	– Dizziness	– Lightheadedness	– Shortness of breath
– Chest pain	– Weakness	– Heart palpitations	– Vomiting	

MANAGEMENT

Until a healthcare provider arrives

1. **Check the scene and the participant – ACTIVATE THE EMERGENCY ACTION PLAN (EAP)**
2. **Instruct designated person to call 911 or the designated emergency number**
3. **Instruct designated person to retrieve and prepare the AED**

If unconscious and not breathing, begin CPR	**If conscious**
May perform HANDS ONLY CPR unless trained at a higher level: – Place heel of one hand in the center of the chest and cover the first hand with the other hand. – Keeping elbows straight and using upper body weight, push down hard and fast on the chest at a rate of 100-120 compressions/minute. – A second person should apply the AED while CPR is being performed. Once AED is applied, follow the audio prompts from the AED. – **Continue until EMS or other healthcare personnel arrive and take over.**	– Monitor the athlete until medical assistance arrives. – Keep the AED readily accessible.

EACH MINUTE DEFIBRILLATION (AED application) IS DELAYED, THE CHANCE OF SURVIVAL DECREASES 10%

EXERTIONAL HEAT STROKE (EHS)

Exertional Heat Stroke is a life threatening condition with two main components – core body temperature greater than 104 degrees and central nervous system dysfunction which usually presents in behavior changes and altered levels of consciousness. A full spectrum of heat illness disorders can occur, including heat cramps, heat syncope and heat exhaustion. These heat disorders <u>MAY OR MAY NOT</u> be present before a heat stroke occurs.

SIGNS & SYMPTOMS

♦ Rectal temperature >104 degrees*	♦ Irritability/emotional instability	♦ Nausea/vomiting/diarrhea
♦ Altered level or loss of consciousness	♦ Dizzy	♦ Headache
♦ Profuse sweating OR hot, red, dry skin	♦ Stagger/inability to walk	♦ Fast pulse, quick breathing, low blood pressure
♦ Dry mouth	♦ Poor performance	

MANAGEMENT

Until a healthcare provider arrives

1. Activate the Emergency Action Plan. Instruct the designated person to call 911 or the designated emergency number.
2. Immediately remove any excess clothing/equipment and move the participant to the cooling area.
3. Immerse the participant in a cold tub (35-58 degrees) up to their torso.
   – If a cold tub is not available, rotate wet ice towels over the entire body, douse with cold water or move to a cold shower.
4. Application of cooling procedures should continue until a healthcare professional can determine the athlete's core temperature*. The participant should be **<u>COOLED FIRST AND TRANSPORTED SECOND!</u>**
5. Monitor ABC's (airway, breathing and circulation) until a healthcare provider arrives.

*A rectal temperature reading is the most accurate way to measure core body temperature and should only be obtained by a healthcare professional.

COOL FIRST & TRANSPORT SECOND

HEAT STROKE HAS A 100% SURVIVAL RATE IF PROPER COOLING IS INITIATED WITHIN 10 MINUTES OF COLLAPSE

HEAD & NECK INJURY

Injuries in which the scalp, skull, brain, head or neck are involved, causing a change in structure, function, affect, cognition and/or sensation. A head injury can be open (penetrating) or closed depending on the type of injury and may involve spinal cord and nerve injury. A concussion is a type of closed head injury defined as a traumatic brain injury induced by biomechanical forces.

SIGNS & SYMPTOMS

CONCUSSION/HEAD INJURY		NECK (CERVICAL SPINE) INJURY	
♦ Headache	♦ Loss of consciousness	♦ Pain to touch over spine	♦ Numbness/tingling in extremities (one side or both)
♦ Balance difficulty/dizziness	♦ Nausea/vomiting	♦ Inability to move extremities	♦ Limited/painful neck range of motion
♦ Vision difficulty	♦ Concentration/memory problems	♦ Weakness in extremities	
♦ Light sensitivity	♦ Emotional instability		
♦ Sound sensitivity	♦ Drowsiness		

MANAGEMENT

Until a healthcare provider arrives

1. ASSUME A NECK INJURY WITH ANY UNCONSCIOUS HEAD INJURY.
2. Activate the Emergency Action Plan. Instruct the designated person to call 911 or the designated emergency number.
3. Stabilize the head and check for breathing.
4. If the participant exhibits no signs of life, provide CPR (as described in the Sudden Cardiac Arrest section).
5. DO NOT attempt to move an unconscious participant unless they are in danger at their location.
6. DO NOT remove any equipment.
7. If the participant is conscious and exhibiting signs of a neck injury, keep the head stabilized and the participant calm and still.
8. Try to keep the participant awake until medical personnel arrive. DO NOT give any medications.

IF THERE IS ANY CONCERN OF CONCUSSION, INITIATE YOUR CONCUSSION POLICY AND DO NOT ALLOW THE PARTICIPANT TO RETURN TO ACTIVITY THE SAME DAY. A PARTICIPANT MAY NOT RETURN TO PLAY AFTER A CONCUSSION UNTIL THEY RECEIVE WRITTEN CLEARANCE FROM A PHYSICIAN (M.D. OR D.O.)

WHEN IN DOUBT, SIT THEM OUT!

ASTHMA

Inflammation of the passages that carry air into the lungs. Asthma can be triggered by exercise, cold or dry air, infection, smoke or allergen particles in the air. If severe enough, asthma attacks can be life threatening.

SIGNS & SYMPTOMS

♦ Wheezing	♦ Shortness of breath	♦ Coughing
♦ Extreme fatigue	♦ Chest tightening	

MANAGEMENT

Until a healthcare provider arrives

1. Remove the participant from the activity.
2. If the participant has a prescribed inhaler or other medications, instruct him/her to use it as prescribed.
3. If signs and symptoms are severe and the participant does not have an inhaler or the inhaler is not alleviating the symptoms, activate the Emergency Action Plan. Instruct the designated person to call 911 or the designated emergency number.
4. If the asthma attack subsides after rest and using the inhaler, the participant may return to activity.

Any participant with asthma should keep their inhaler at the location of participation at all times. **All coaches/sponsors should know where the inhaler is kept during participation.**

ALLERGIC REACTIONS

Anaphylaxis is a severe allergic reaction to food, plants, medication or venom. These severe reactions are most typically caused by an insect sting or ingesting foods the student is allergic to. Common food allergies include milk, peanuts and tree nuts. Anaphylaxis can be catastrophic, so immediate treatment is a must!

SIGNS & SYMPTOMS

♦ Pale skin	♦ Rash	♦ Facial, throat or mouth swelling
♦ Weak, rapid pulse	♦ Difficulty breathing or rapid/shallow breathing	

MANAGEMENT

Until a healthcare provider arrives

1. If signs and symptoms are severe, activate the Emergency Action Plan. Instruct the designated person to call 911 or the designated emergency number.
2. Remove the participant from the activity and allow them to sit or lie down.
3. If the reaction is severe and the participant has a prescribed epinephrine auto-injector (e.g., EpiPen), administer this medication.
4. Elevate legs and cover with blanket if needed.
5. If the reaction is due to a bite or sting, remove the stinger if possible. Apply ice to the area.
6. Monitor the participant for at least 15 minutes. If all symptoms resolve, the person may return to participation.

Any participant with a known allergy should have an epinephrine auto-injector (e.g., EpiPen) at the location of participation at all times. **All coaches/sponsors should be trained in the use of an epinephrine auto-injector and know where it is kept during participation**.

ALLERGIC REACTIONS ARE UNPREDICTABLE.
THEY CAN BE MILD ONE TIME AND SEVERE THE NEXT.

BE PREPARED!