# **Durant Road Middle School Athletics Emergency Action Plan**

# General Plan

The Sports Medicine Staff at Durant Road Middle School is committed to quality care in the treatment of athletic and emergency injuries. However, there will be times in which the Athletic Trainer will not be present. For this reason, the following emergency action plan has been established to assist the coaching staff in dealing with emergency situations. This plan is not intended to cover every situation that may arise. Therefore, please always err on the side of caution. If you are unsure of the severity of an injury, call 911.

# Identification of Emergency or Life Threatening Situations

Individual making decision (Chain of Command):

- a. Athletic Trainer (Trina Mauder)
- b. Athletic Director (Kutter Miller)
- c. Head coach
- d. Assistant Coach
- e. Administrator on duty or SRO

The person, on site, that is the highest in the chain of command should always stay with the athlete and handle the emergency with the help of others.

# **Emergency Action Steps**

The most accessible land line to the gym, cafeteria, and practice fields are in the men's and women's PE office. The closest land line to game field and the softball field are from the 6<sup>th</sup> grade hallway. From these land line phones 9-9-1-1 must be dialed.

- 1. Life threatening situation
  - i. Activate EMS for transport to hospital.
    - 1. Person highest on Chain Of Command decides that emergency transportation is warranted.
    - 2. This person remains with athlete to administer necessary first aid and sends someone else to call 9-1-1.
    - 3. What to say when calling EMS:
      - a. Description of problem
      - b. Report what emergency care has been given
      - c. Your name
      - d. Athlete's name
      - e. Exact location
      - f. Telephone number (in case you are dropped they will call back)
      - g. Do not hang up until instructed to
    - 4. Person making the call waits for the ambulance at designated entrance or sends designated person.
    - 5. Person highest on Chain of Command decides who shall go in the ambulance with the athlete.
    - 6. Basic first aid and/or CPR are continued until EMS relieves person highest on chain of command of their responsibility to the athlete.
    - 7. Once the life threatening situation is resolved, record the series of events that happened right away so all details are accounted for. Notify athletic trainer if he/she was not present. Notify Mrs. Faircloth if she was not present.
- 2. Non-Life threatening situation
  - i. Refer student to Athletic Trainer for evaluation.

ii. If Athletic Trainer is not on campus, render basic first aid and notify parent/guardian, and the athletic trainer so she can follow up the following day.

**Emergency Telephone Numbers/Emails** 

EMS Trina Mauder, LAT, ATC (Athletic Trainer) Athletic Director (Kutter Miller) 919-870-4098 Main Office Kristen Faircloth (Principal)

911 (9-9-1-1 from a school landline) tmauder@wcpss.net kmmiller@wcpss.net kfaircloth@wcpss.net

## Conditions that may warrant emergency care

### 1. Heat Illness (see Hot Weather Guidelines: Appendix A for more sport specific guidelines) 1. Management of Suspected Heat Related Illness

Signs and symptoms of a possible heat illness are listed below. If you observe an athlete experiencing even one of these symptoms, the athlete MUST immediately be removed from all participation. If the ATC/First Responder is available, contact him/her immediately so an evaluation can be performed. If the ATC/First Responder is not accessible provide the following care. Please note that if the athlete is unconscious or has an altered level of consciousness 911 should be called immediately.

# Signs and Symptoms of Heat Problems

*Early Stages (sometimes called heat exhaustion)* 

- Cool, moist, pale, ashen, or flushed skin
- ♦ Headache, nausea, dizziness
- Weakness, exhaustion
- ♦ Heavy sweating

# Late Stages (sometimes called heat stroke)

- ◆ Red, hot, dry skin
- Changes in level of consciousness
- Vomiting

# Care

The athletic trainer should be contacted immediately when an athlete exhibits signs and symptoms of heat illness. The following care is recommended for an athlete exhibiting signs and symptoms of heat illness.

- 1. Cessation of activity
- 2. Move the athlete to a cool place
- 3. Loosen tight clothing
- 4. Remove perspiration-soaked clothing
- 5. Immerse athlete ice tub, if not available place in cool or tepid water. If immersion is not possible:
  - Place ice packs at head, neck, axillae and groin
  - Bathe face and trunk with iced or tepid water
  - Fan athlete to help cooling process
- 6. If conscious, give cool water to drink

If at any time the athlete exhibits the following signs and symptoms:

- refuses water
- vomits
- skin is unusually red, hot, and dry for the weather conditions (dry clothes also)
- starts to lose consciousness
  - 1. Send someone to call EMS personnel (Emergency Action Plan)
  - 2. Place the athlete on his or her side
  - **3.** Continue to cool the athlete by using ice or cold packs on the wrists, ankles, groin, and neck and in the armpits. Immersion in a tub of ice water is ideal if available.
  - 4. Continue to check breathing and pulse

# 2. Head Injury

1. Management of Suspected Head Injuries

Signs and symptoms of a possible concussion are listed below. If you observe an athlete experiencing even one of these symptoms, the athlete <u>MUST be removed immediately from all</u> <u>participation</u>. If the ATC/First Responder is available, contact him/her immediately so an evaluation can be performed. If the ATC/First Responder is not accessible, contact parent and recommend a prompt physician evaluation.

# **\*\***After calling the parents, make sure to contact the Athletic Trainer if they are not present on the scene**\*\***

# What is a concussion?

A concussion is a brain injury that:

- Is caused by a bump, blow, or jolt to the head
- Can change the way your brain normally works
- Can range from mild to severe
- Can occur during practices or games in any sport
- Can happen even if you haven't been knocked out
- Can be serious even if you've just been "dinged" or had your "bell rung"

# What are the symptoms of a concussion?

Nausea (feeling that you might vomit) Balance problems or dizziness Double or fuzzy vision Sensitivity to light or noise Headache Feeling sluggish Feeling foggy or groggy Concentration or memory problems (forgetting game plays) Confusion

# \*\* Any athlete with a suspected concussion must see a physician for return to play clearance\*\*

# Please Refer to Appendix B for Post Concussion Protocol

# 3. Neck or Spine Injury

1. <u>Never</u> move an athlete with a suspected neck or spine injury! Initiate emergency action steps.

Head, neck and/or spine injuries can be the most fatal and critical injuries that athletes sustain! If you suspect that a person has one of these injuries tell him/her to respond verbally to any questions you ask and to avoid nodding or shaking their head. The goal in caring for a person with one of these injuries is to minimize movement. Signs and symptoms of a possible head, neck, or spine injury are listed below. If you observe an athlete experiencing even one of these symptoms, the athlete <u>MUST immediately be</u> removed from all participation. If the Athletic Trainer is not available provide the following care. Please note that if the athlete is unconscious or has an altered level of consciousness <u>911 should be called immediately</u>!

# Signs of Head, Neck and Spine Injuries:

Change in consciousness Severe pain or pressure in the head, neck or back Tingling or loss of sensation in the extremities Partial or complete loss of movement of any body part Unusual bumps or depressions on the head or over the spine Blood or other fluids in the ears or nose Heavy bleeding of the head, neck or back Seizures Impaired breathing or vision from the injury Nausea or vomiting Loss of balance Bruising of the head, especially around the eyes or behind ears

# Caring for Head, Neck and Back Injuries:

- Contact Athletic Trainer Immediately or 911 if Athletic Trainer is not available!
- Minimize movement to the head, neck, back
- Check for consciousness and breathing
- Maintain open airway
- Control any external bleeding
- Keep the victim calm. Comfort and reassure them. Encourage them to stay still until help arrives.

# \*\*After calling parents, make sure to contact the Athletic Trainer if he/she is not present\*\*

# 4. Respiratory Difficulties

1. If athlete has an inhaler, have them use it.

2. If difficulties continue initiate emergency action steps for life threatening situation.

# 5. Fractures/dislocations

- 1. <u>Never</u> move an athlete with a possible fracture or dislocation unless properly splinted.
- 2. If unable to splint initiate emergency action steps for life threatening situation.

# 6. Severe Bleeding

1. Apply pressure with gauze and elevate as long as a fracture or dislocation is not suspected.

2. Initiate emergency action steps for life threatening situation.

# 7. Shock

- 1. Have the athlete lie down and cover them with a blanket.
- 2. Initiate emergency action steps for life threatening situation.

# 8. Loss of Consciousness

1. Initiate emergency action steps for life threatening situation.

# 9. Inclimate Weather:

North Carolina follows the NFHS and SMAC Lightning and Thunder Guidelines.

1. When thunder is heard or lightning is seen, play must be suspended. All athletes, coaches, managers, and fans must seek shelter. Shelter includes inside locker rooms, the gym, cafeteria, in cars, or the bus. Dugouts, trailers, and overhangs are not shelter!

2. Thirty-minute rule: Once play has been suspended, wait at least 30 minutes after the last thunder is heard or lightning is seen prior to resuming play. Any subsequent thunder or lightning after the beginning of the 30 minute count will reset the clock and another 30 minute count should begin.

# Refer to Appendix C to see thunder and lightning guidelines in its entirety.

# 10. Cardiac Emergencies

# 1. Management of Cardiac Emergencies

The following are signs and symptoms of a cardiac emergency. If any of these signs are observed in an athlete that you suspect of having a cardiac issue, **call 911 immediately and send someone for the closest AED**. If the ATC/First Responder is available, contact him/her immediately so emergency care can be provided. If you are certified in CPR/FA, provide appropriate care until EMS, ATC/First Responder, or another professional rescuer arrives.

- a. Chest Discomfort
- b. Jaw, neck, shoulder or arm pain
- c. Shortness of Breath
- d. Nausea
- e. Lightheadedness
- f. Profuse Sweating

# Automatic External Defibrillator (AED)

Durant Road Middle School has 3 AED's. They are stored on the wall in the PE hallway across from the women's locker room, outside the Main Office, and in the cross hall by E01 (by CA lab & Spanish classroom).

Automated External Defibrillator (AED) Guidelines:

- In the event that the AED is needed, have someone specific call 911, contact the Athletic Trainer or if they are not present send someone to obtain the AED from the nearest location.
- Only certified staff may use the AED.
- If you retrieve the AED, please turn it on while bringing it to the site of the emergency!!
- Follow the instructions pertaining to the specific unit being used.

Practice Field

Life Threatening Situation

- 1. Follow Emergency Action Steps for Life Threatening Situations
- 2. Instruct EMS to enter the bus lot and park in the gravel lot by the mobile units.
- 3. Send someone to meet EMS at entrance and direct to scene of accident.
- 4. Closest AED is PE Hallway

## Non-Life Threatening Situation

1. Follow Emergency Action Steps for non-life threatening situations.

## Game Field, Softball Field

Life Threatening Situation

- 1. Follow Emergency Action Steps for Life Threatening Situations
- 2. Instruct EMS to enter the carpool loop.
- 3. Send someone to meet EMS at entrance and direct to scene of accident.
- 4. Closest AED is PE Hallway

## Non-Life Threatening Situation

1. Follow Emergency Action Steps for non-life threatening situations.

# Gymnasium, Cafeteria

Life Threatening Situation

- 1. Follow Emergency Action Steps for Life Threatening Situations
- 2. Instruct EMS to park in the bus lot and enter the building where our bus riders enter and exit.
- 3. Have someone meet EMS at the bus loop entrance to direct to the scene of the accident.
- 4. Closest AED is PE Hallway

Non-Life Threatening Situation

1. Follow Emergency Action Steps for Life Threatening Situations.

WAKE COUNTY GUIDELINES:



<u>Hot Weather/Heat Situation Guidelines</u> <u>Hydration Guidelines</u> <u>Football Heat/Acclimatization Guidelines</u>

## NCHSAA HEAT GUIDELINES

The fundamentals of a Heat Acclimatization Program are as follows:

1) A Certified Athletic Trainer or 1<sub>st</sub> Responder **MUST** be in attendance at all football practices and games.

2) Physical exertion and training activities should begin slowly and continue progressively. An athlete cannot be conditioned in a period of only two to three weeks.

a. Begin with shorter, less intense practices and training activities, with longer recovery intervals between bouts of activity.

- b. Minimize protective gear (helmets only, no shoulder pads) during first several practices, and introduce additional uniform and protective gear progressively over successive days.
- c. Emphasize instruction over conditioning during the first several practices.

3) Keep each athlete's individual level of conditioning and medical status in mind and adjust activity according. These factors directly affect exertional heat illness risk. For example, there is an increased risk if the athlete is obese, unfit, has been recently ill, has a previous history of exertional heat illness, or has Sickle Cell Trait.

4) Adjust intensity (lower) and rest breaks (increase frequency/duration), and consider reducing uniform and protective equipment, while being sure to monitor all players more closely as conditions are increasingly warm/humid, especially if there is a change in weather from the previous few days.

5) Athletes must begin practices and training activities adequately hydrated.

6) Recognize early signs of distress and developing exertional heat illness, and promptly adjust activity and treat appropriately. First aid should not be delayed.

7) Recognize more serious signs of exertional heat illness (clumsiness, stumbling, collapse, obvious behavioral changes and /or other central nervous system problems), immediately stop activity and promptly seek medical attention by activating the Emergency Medical System. On-site rapid cooling should begin immediately.

8) An Emergency Action Plan (EAP) with clearly defined written and practiced protocols should be developed and in place ahead of time.

9) Prior to season all coaches, athletic training personnel and first responders working with team should review signs and symptoms of heat illness and the emergency action plan for their school. Precautions must be taken to prevent heat-related problems. Please pay particular attention to the following:

• A Heat Index chart should be available at practices and contests

• A copy of the Emergency Action Plan that outlines steps to take in case of severe environmental conditions, should be on-site.

• Supplies for rapid cooling should be on-site. These should include a simple "toddler swimming pool" or tank for rapid immersion.

### Management and Prevention Guidelines and Recommendations

- 1. Measure WBGT reading if this can be done accurately onsite. If not, determine this from weather station or reliable airport site within 5 to 10 miles of practice site. If WBGT is not available, determine temperature in F/C and Relative Humidity and refer to the following Heat Index Chart.
- 2. As temperatures increase, minimize clothing and equipment.
- 3. Provide unlimited drinking opportunities during hotter practices. NEVER withhold water from athletes.
- 4. If and when possible, pre and post-practice weigh-ins should be conducted. (NOTE: an athlete who is not within 3% of the previous pre-practice weight should be withheld from practice. These athletes should be counseled on the importance of re-hydrating.)

**Note:** The color code below for WBGT is the same as NCHSAA. The NOAAA Heat Index color code has been changed to match up with the WBGT color code for consistency. Color codes are for your use if desired.

### Management of Suspected or Possible Heat Stroke

Activate emergency medical system immediately; if appropriate medical staff is on-site, cool first and transport second whenever possible.

Remove all equipment and excess clothing.

Immerse the athlete in a tub of cold water (the colder the better); water temperature should be between 35 to 60°F (2 to 15°C); ice water is ideal but even tepid water is helpful; maintain an appropriately cool water temperature; stir the water vigorously during cooling.

Monitor vital signs (rectal temperature, heart rate, respiratory rate, blood pressure) and mental status continually. Maintain patient safety.

Cease cooling when rectal temperature reaches 101 to 102°F (38.3 to 38.9°C).

# NOTE: Since rectal temperature measurement is essential for diagnosis and management of a heat stroke, when possible a Rectal Thermometer should be accessible on-site.

Alternative cooling

- When immersion is not available follow all other steps above and do the following:
- Place icepacks at head, neck, axillae and groin
- Bathe face and trunk with iced or tepid water
- Fan athlete to help the cooling process
- Move to shaded or air conditioned area if available near the practice site.

### HEAT EXHAUSTION

The clinical criteria for heat exhaustion generally include the following:

- Athlete has obvious difficulty continuing with exercise
- Body temperature is usually 101 to 104ºF (38.3 to 40.0ºC) at the time of collapse
- No significant dysfunction of the central nervous system is present (e.g, seizure, altered consciousness, persistent delirium)

If any central nervous system dysfunction develops, such as mild confusion, it resolves quickly with rest and cooling.

Patients with heat exhaustion may also manifest:

- Tachycardia and hypotension
- Extreme weakness
- Dehydration and electrolyte losses
- Ataxia and coordination problems, syncope, light-headedness
- Profuse sweating, pallor, "prickly heat" sensations
- Headache
- Abdominal cramps, nausea, vomiting, diarrhea
- Persistent muscle cramps

### SIGNS AND SYMPTOMS OF HEAT STROKE

The two main criteria for diagnosing exertional heat stroke:

- Rectal temperature above 104°F (40°C), measured immediately following collapse during strenuous activity
- CNS dysfunction: possible symptoms and signs: disorientation, headache, irrational behavior, irritability, emotional
- instability, confusion, altered consciousness, coma, or seizure.

CLINICAL FINDINGS:

- Most patients are tachycardia and hypotensive.
- Hyperventilation, dizziness, nausea, vomiting, diarrhea, weakness, profuse sweating
- Dehydration, dry mouth, thirst, muscle cramps, loss of muscle function, and ataxia.
- Absence of sweating with heat stroke is not typical and usually indicates additional medical issues.

Ref. Oconor and Casa UpToDate 2012

### WCPSS - Following NCHSAA Heat Guidelines

The Wet Bulb Globe Temperature (WBGT) is a composite temperature used to estimate the effect of temperature, humidity, wind speed (wind chill) and solar radiation on humans. The Wet Bulb Globe Temperature Index accounts for the impact that direct sunlight has on the human body. The WBGT Index combines wet and dry temperatures with a "Black Globe" temperature to accurately reflect the current risk. The American College of Sports Medicine and many state athletic associations recognize the value of WBGT readings in assessing the risk of heat-related illness.

Each high school will be provided a Wet Globe Kit to measure WBGT. Each middle school will be paired up with a high school athletic trainer to receive the WBGT measurement prior to middle school practice daily while hot weather conditions persist. High school athletic trainers will be provided training on the use of the Wet Globe Kit at the annual athletic director/athletic trainer meeting in July.

Per NCHSAA Heat Guidelines, WBGT measurement will be used when available. If WBGT is not available, heat index will be used to determine the current risk.

match up with the wood color code for consistency. Color codes are for your use it desired

WBGT and Heat Index - Physical Exercise Chart				
WBGT Index (F)	Heat Index	Athletic Activity Guidelines           Unlimited activity with primary cautions for new or unconditioned athletes or extreme exertion; schedule mandatory rest / water breaks (5 min water / rest break every 30 min)		
ess than 80	Less than 80			
30 - 84.9	80 - 90	Normal practice for athletes; closely monitor new or unconditioned athletes and all athletes during extreme exertion. Schedule mandatory rest / water breaks. (5 min water / rest break every 25 min)		
<u> 35 - 87.9</u>	91 - 103	New or unconditioned athletes should not practice. Well conditioned athletes should have more frequent rest breaks and hydration as well as cautious monitoring for symptoms of heat illness. Schedule frequent mandatory rest / water breaks. (5 min water / rest break every 20 min) Have immersion pool on site for practice.		
88 - 89.9	104 - 124	All athletes must be under constant observation and supervision. Remove pads and equipment. Schedule frequent mandatory rest / water breaks. (5 min water / rest break every 15 min) Have immersion pool on site for practice.		
90 or Above	125 and up	SUSPEND PRACTICE		



#### Measuring Heat Index

• There are many devices that can measure heat index (Precision Heat Index Instrument, Heat and Humidity Monitor, SkyScan Ti-Plus Weather Monitor and Heat Index Warning System).

• Heat Index can be determined by entering the zip code at your location at these websites: http://www.osaa.org/heatindex/ or <a href="http://www.ihsaa.net/HeatIndex/Default.aspx">http://www.osaa.org/heatindex/ or <a href="http://www.ihsaa.net/HeatIndex/Default.aspx">http://www.osaa.org/heatindex/ or <a href="http://www.ihsaa.net/HeatIndex/Default.aspx">http://www.osaa.org/heatindex/ or <a href="http://www.ihsaa.net/HeatIndex/Default.aspx">http://www.osaa.org/heatindex/ or <a href="http://www.ihsaa.net/HeatIndex/Default.aspx">http://www.ihsaa.net/HeatIndex/Default.aspx</a>.

• Heat index can also be found by entering air temperature and relative humidity at this website: http://www.hpc.ncep.noaa.gov/html/heatindex.shtml.

• Heat index can be found at most weather websites, and most local television weather stations and websites.

#### **Athletic Participation Form**

• Board Policy 6860 requires that all athletes receive a medical examination once every 395 days.

• The athletic trainer shall insure that no athlete participates without fully completing the athletic participation form and being cleared to participate by authorized medical personnel.

• If an athlete's medical history shows that the athlete has suffered from a heat-related illness, the athlete shall receive one-on-one instruction from the athletic trainer or designee about symptoms of heat illness and the importance of hydration.

#### Pre and Post Weigh-Ins (Football Only)

1. Daily pre and post practice weigh-ins should be taken and any athlete who is not within 3% of the previous day's pre-practice weight should be withheld from practice. Athletes who lose more than 3% of their weight during a practice should also be counseled on the importance of pre-hydrating, drinking more fluids during the practice session, and post practice re-hydration. For high schools, weigh-ins must be done under the supervision of the head athletic trainer or designee beginning with the first day of fall practice and continuing to Labor Day. On or after Labor Day, weigh-ins must be done any time the wet-bulb temperature is in the Code Yellow or Code Red category, and for athletes susceptible to heat illness (see #2 below). For middle schools, weigh-ins must be done under the supervision of the athletic trainer or designee beginning with the first day of fall practice and continuing through September 30th. After September 30th, weigh-ins must be done any time the wet-bulb temperature is in the Code Yellow or Code Red category, and for athletes (see #2 below). Note: Supervision means making sure that pre and post weigh-ins are properly taken, recorded, and evaluated for 3% weight loss. The football coach will help set provisions for weigh-ins for players (must include no weigh-in,/no practice rule and weigh-ins for players late to practice).

2. A list of athletes most susceptible to heat illness must be maintained by the athletic trainer and communicated to the coaching staff. This list should include, but not be limited to, athletes with a medical history of heat illness, athletes losing more than 3% of their weight during a practice, and athletes that have reported symptoms of heat illness during the season to the athletic trainer. Others more susceptible to heat illness are febrile illness (current or recent fever), taking medications (especially ones with a diuretic effect or that act as a stimulant), and sickle cell trait.

**3.** The athletes most susceptible to heat illness should receive one-on-one instruction from the athletic trainer or designee about symptoms of heat illness and the importance of hydration.

4. The athletic trainer or designee should recommend to athletes most susceptible to heat illness that they consult with their doctor for additional guidance. If an athlete's doctor informs the coaching staff or athletic trainer that the athlete has suffered a heat related illness during the season, the athlete may not participate until cleared in writing by the doctor.

#### **Coaches and Athletes Education**

• The athletic trainer will provide the coaches with information on heat illness including heat illness symptoms and proper hydration. In case a middle school does not have a person filling the athletic trainer position, the athletic director will provide this information.

• Athletes should be informed of the importance of hydration, the symptoms of heat illness, and their personal responsibility to inform the athletic trainer or coaching staff if they suffer any symptoms of heat illness.

- Teams should use the "buddy" system (two players who play the same position are assigned to "keep an eye on" each other).
- Any coach notified or aware of any athlete exhibiting a symptom of heat illness shall notify the athletic trainer.

# POSITION STATEMENT AND RECOMMENDATIONS FOR MAINTAINING HYDRATION TO OPTIMIZE PERFORMANCE AND MINIMIZE THE RISK FOR EXERTIONAL HEAT ILLNESS

National Federation of State High School Associations (NFHS) Sports Medicine Advisory Committee (SMAC)

# DEHYDRATION – ITS EFFECTS ON PERFORMANCE AND ITS RELATIONSHIP TO EXERTIONAL HEAT ILLNESS RISK:

• Appropriate hydration before, during, and after physical activity is integral to healthy, safe and successful sports participation.

• Weight loss during exercise and other physical activity represents primarily a loss of body water. A loss of just 1 to 2% of body weight (1.5 to 3 pounds for a 150-pound athlete) can negatively impact performance. A loss of 3% or more of body weight during vigorous exercise can also significantly increase the risk for exertional heat-related illness. If an athlete is already dehydrated prior to beginning activity, these effects will occur even sooner.

- Athletes should be weighed (in shorts and T-shirt) before and after warm or hot weather practice sessions and contests to assess their estimated change in hydration status.
- Athletes with high body fat percentages can become significantly dehydrated and over-heat faster than athletes with lower body fat percentages, while working out under the same environmental conditions at the same or similar workload.
- Athletes have different sweating rates and some lose much more water and salt through their sweat than others. "Salty sweaters" will often have noticeable salt stains on their clothing and skin after workouts, and they often have a higher risk of developing exertional muscle cramps.
- Poor heat acclimatization/fitness levels can greatly contribute to an athlete's heat intolerance and exertional heat illness risk.
- Certain medications or current/recent illness, especially for illnesses involving gastrointestinal distress (e.g., vomiting, diarrhea) and/or fever, can negatively affect an athlete's hydration status and temperature regulation, increasing the risk for exertional heat illness.
- Environmental temperature and humidity each independently contribute to dehydration and exertional heat illness risk.
- Clothing that is dark or bulky, as well as protective equipment (such as helmets, shoulder pads and other padding and coverings), can increase body temperature, sweat loss and subsequent dehydration and exertional heat illness risk.
- Even naturally dry climates can have high humidity on the field if irrigation systems are run prior to early morning practices start. This temporary increase in humidity will continue until the water completely soaks into the ground or evaporates.
- A heat index chart should be followed to help determine if practices/contests should be modified or canceled.

The NOAA National Weather Service's heat index chart can be found at:

http://www.weather.gov/om/heat/index.shtml – On-site wet-bulb temperature should be measured 10-15 minutes before practices or contests. The results should be used with a heat index to determine if practices or contests should be started, modified, or stopped. – If wet-bulb temperature measurement is not available, the heat index for your approximate location can be determined by entering your postal zip code:

http://www.osaa.org/heatindex/ The interplay of relative humidity and temperature on sweating and the risk for exertional heat illness: – A combined relative humidity of 40 percent and a temperature of 95 degrees Fahrenheit are associated with a likely risk of incurring significant sweat loss and exertional heat illness during strenuous physical activity. However, even with a lower air temperature of only 85 degrees Fahrenheit, for example, the risk for extensive sweating and exertional heat illness would likely be the same or greater with a higher relative humidity of 70 percent or more.

# WHAT TO DRINK DURING EXERCISE AND OTHER PHYSICAL ACTIVITY:

• For most exercising athletes in most scenarios, water is appropriate and sufficient for prehydration and rehydration. Water is quickly absorbed, well-tolerated, an excellent thirst quencher and cost-effective.

• Traditional sports drinks with an appropriate carbohydrate and sodium formulation may provide additional benefit in the following general situations: – Prolonged continuous or intermittent activity of greater than 60 minutes – Multiple, same-day bouts of intense, continuous or repeated exertion – Warm-to-hot and humid conditions

Traditional sports drinks with an appropriate carbohydrate and sodium formulation may provide additional benefit for the following individual conditions: – Poor hydration prior to participation – A high sweat rate and/or "salty sweater" – Poor caloric intake prior to participation – Poor acclimatization to heat and humidity
A 6 to 8% carbohydrate formulation is the maximum that should be utilized in a sports drink. Any greater concentration will slow stomach emptying and potentially cause the athlete to feel bloated. An appropriate sodium concentration (0.4–1.2 grams per liter) will help with fluid retention and distribution and decrease the risk of exertional muscle cramping.

# WHAT NOT TO DRINK DURING EXERCISE AND OTHER PHYSICAL ACTIVITY:

• Fruit juices with greater than 8 percent carbohydrate content and carbonated soda can both result in a bloated feeling and abdominal cramping.

• Athletes should be aware that nutritional supplements are not limited to pills and powders as many of the new "energy" drinks contain stimulants such as caffeine and/or ephedrine. – These stimulants may increase the risk of heat illness and/or heart problems with exercise. They can also cause anxiety, jitteriness, nausea, and upset stomach or diarrhea. – Many of these drinks are being produced by traditional water, soft drink and sports drink companies which can cause confusion in the sports community. As is true with other forms of supplements, these "power drinks", "energy drinks", or "fluid supplements" are not regulated by the FDA. Thus, the purity and accuracy of contents on the label is not guaranteed. – Many of these beverages which claim to increase power, energy, and endurance, among other claims, may have additional ingredients that are not listed. Such ingredients may be harmful and may be banned by governing bodies like the NCAA, USOC, or individual state athletic associations. – See the NFHS Position Statement and Recommendations for the use of Energy Drinks by Young Athletes for further information.

# HYDRATION AND FLUID INTAKE TIPS AND GUIDELINES:

• Many athletes do not voluntarily drink enough water to prevent significant dehydration during physical activity.

• Drink regularly throughout all physical activities. An athlete cannot always rely on his or her sense of thirst to sufficiently maintain proper hydration.

• Drink before, during, and after practices and games. For example: – Drink 16 ounces of fluid 2 hours before physical activity. – Drink another 8 to 16 ounces 15 minutes before physical activity. – During physical activity, drink 4 to 8 ounces of fluid every 15 to 20 minutes (some athletes who sweat considerably can safely and comfortably tolerate up to 48 ounces per hour). – After physical activity, drink 16 to 20 ounces of fluid for every pound lost during physical activity to achieve normal hydration status before the next practice or competition (if there is sufficient time to do this safely and comfortably). Importantly, excessive fluid intake in a short period of time can be dangerous to one's health (see below on hyponatremia).

• The volume and color of your urine is an excellent way of determining if you're well hydrated. Small amounts of dark urine mean that you need to drink more, while a "regular" amount of light-colored or nearly clear urine generally means you are well hydrated. A Urine Color Chart can be accessed at: http://at.uwa.edu/admin/UM/urinecolorchart.doc

• Hyponatremia is a rare, but potentially deadly disorder resulting from the over-consumption of water or other low-sodium fluid (including most sports drinks). It is most commonly seen during endurance events, such as marathons, when participants consume large amounts of water or other beverages over several hours, far exceeding fluid lost through sweating. The opposite of dehydration, hyponatremia is a condition where there is

an excessive amount of water in the blood and the sodium content of the blood is consequently diluted to dangerous levels. Affected individuals may exhibit disorientation, altered mental status, headache, lethargy and seizures. A confirmed diagnosis can only be made by testing blood sodium levels. Suspected hyponatremia is a medical emergency and EMS (Emergency Medical Services) must be activated. It is treated by administering intravenous fluids containing high levels of sodium.

# **Practice and Conditioning**

(a) State Medical Requirements: A licensed athletic trainer or sports medicine first responder is required by state law to be at practice and at games.

(b) Definitions:

(1) Practice: That period of time a participant engages in a coach-supervised, school- approved, sport or conditioning-related physical activity; each practice should last no more than 3 hours. Warm-up, stretching, conditioning/weight room activities are included as part of the 3-hour practice time. Practices are timed from the time the players report to the field until they leave the field.

(2) Required Practice: A player must participate in at least eight (8) separate days of team football practice (not military training, summer track, etc.) before participating in a football contest or scrimmage with outside competition (exception: athletes from other sports who play only as kickers). Three of these practices must be in full pads and include body to body contact.

(3) Contact Practice The time when players may hit or have body to body contact- these drills may begin the day following the five (5) days used for acclimatization and physical conditioning; the use of all football protective equipment is required.

(4) Levels of Contact:

(i) Air (Level – 0): Players run a drill unopposed without contact.

(ii) Bags (Level – 1): Drill is run against a bag or another soft-contact surface.

(iii) Control (Level -2 {Contact}): Drill is run at assigned speed until the moment of contact- one player is predetermined the winner by the coach. Contact remains above the waist and players stay on their feet.

(iv) Thud (Level -3 {Contact}): Drill is run at competitive speed through the moment of contact- no predetermined winner. Contact remains above the waist, players stay on their feet and a quick whistle ends the drill.

(v) Live Action (Level -4 {Contact}): Drill is run in game-like conditions and is the only time that players are taken to the ground. (Revised)

(5) Scrimmage: Informal sports contest or practice match engaged in for practice purposes; may occur on Day 9 of the pre-season period. During this time, players may engage in hitting.

(6) Walk-Through: A teaching opportunity with the athlete not wearing protective equipment (e.g. helmets, shoulder pads, catcher's gear, shin guards) or using other sport-related equipment. The walk-through is not part of the 3 hour practice period, can last no more than 1 hour per day, and does not include conditioning or weight room activities. In football, a one (1) hour maximum walkthrough is permitted during the 1st twelve (12) days of pre-season practice.

(7) Cool Down Period: The three (3) hour time period between the end of (1) one practice or walkthrough and the beginning of the next practice or walk-through. During this time, athletes should rest in a cool environment helmets off, not in direct sunlight with no sport or conditioning related activity permitted (e.g. speed or agility drills, strength training, conditioning, or walk-through). Treatment with the athletic trainer is permissible.

(c) Conditioning Requirements: The first five (5) days of practice are required to be used for physical conditioning according to the following provisions: The NCHSAA emphasizes the importance of these regulations for safety. (1) On the first two (2) days, headgear, non-padded shorts and football shoes constitute acceptable dress. On days three (3), four (4) and five (5), shoulder pads may be added, but absolutely no body-to-body contact is permitted (see Penalty Code for Violations 3.2.2.e.1). Practice during the first five-day period shall be limited to three (3) hours, including flex time (stretching) and breaks. On day six (6), full uniforms may be worn, and body-to-body contact is allowed. (2) This conditioning period may include calisthenics, kicking, throwing, running and similar exercises. Arm shields, tackling or blocking dummies, charging sleds or similar devices may also be used during these five days. Squad meetings, skull sessions, film study and the like are allowed during the five-day period. (3) All football players, with the exception of soccer players who play only as kickers must follow the preceding conditioning requirements. Any student, who is late coming out for the team, must still undergo five (5) days of physical conditioning as outlined prior to beginning regular practice and workouts.

# **APPENDIX B:**

**Post Concussion Protocol** 

## **Post-Concussion Protocol**

If a student-athlete exhibits any one sign and symptom consistent with a concussion (even if not formally diagnosed), the student-athlete is to be removed from play and is not allowed to return to play (game, practice, or conditioning) on that day.

Student-athletes are encouraged to report their own symptoms, or to report if peers may have concussion symptoms. Coaches, parents, volunteers, first responders, school nurse, licensed athletic trainers (if available), are responsible for removing a student-athlete from play if they suspect a concussion.

Following the injury, the student-athlete must be evaluated by a qualified medical professional with training in concussion management. It is strongly recommended that each institution seek qualified medical professionals in the surrounding community to serve as resources in the area of concussion management.

Furthermore, in order for a student- athlete to return to play, he/she must have written clearance from appropriate medical personnel on the NCHSAA Concussion Return to Play Form as stated in the Gfeller-Waller Act.

After official documentation has been received and athlete is no longer symptomatic s/he must also undergo a proper return to play progression consisting of appropriate incremental increases in physical activity until cleared for full, unrestricted activity. This is the case no matter what the severity may be.

The Athletic Trainer reserves the right to withhold any student athlete from activity if there is any suspicion of a return in signs or symptoms of a concussion. This is also the case if the athlete has been cleared for full return by any and all medical personnel.

# **APPENDIX C**:

# **Lightning Recommendations**

The new protocol, for Lightning/Thunder is:

- If thunder is heard or if you see lightning, no matter what the distance, seek indoor shelter.
  - Shelter is best indoors, vehicles, buses.
  - Shelter IS NOT, under bleachers or picnic type shelters, dugouts or under overhangs such as around concession stands etc...

# \*\*IF THUNDER ROARS, GO INDOORS!!\*\* \*\*IF LIGHTNING IS WHAT YOU SEE, EVERYONE MUST FLEE\*\*

# \*\*IF YOU HEAR IT, YOU MUST CLEAR IT!\*\* \*\*IF YOU SEE IT, YOU MUST FLEE IT!\*\*

# \*\*DURING THIS TIME, EVERYONE (PLAYERS, COACHES, ATC, AD, MANAGERS, SPECTATORS) MUST CLEAR THE AREA, AND REAMIN CLEAR UNTIL IT IS SAFE TO RETURN (30 MINUTES AFTER THE LAST LIGHTNING STRIKE AND/OR THUNDER ROAR)

# NFHS GUIDELINES ON HANDLING PRACTICES AND CONTESTS DURING LIGHTNING or THUNDER DISTURBANCES

# National Federation of State High School Associations (NFHS) Sports Medicine Advisory Committee (SMAC)

These guidelines provide a default policy to those responsible or sharing duties for making decisions concerning the suspension and restarting of practices and contests based on the presence of lightning or thunder. The preferred sources from which to request such a policy for your facility would include your state high school activities association and the nearest office of the National Weather Service. **Proactive Planning** 

- 1. Assign staff to monitor local weather conditions before and during practices and contests.
- 2. Develop an evacuation plan, including identification of appropriate nearby safe areas.
- 3. Develop criteria for suspension and resumption of play:

a. When thunder is heard or a cloud-to-ground lightning bolt is seen, the leading edge of the thunderstorm is close enough to strike your location with lightning. Suspend play for thirty minutes and take shelter immediately.

b. Thirty-minute rule. Once play has been suspended, wait at least 30 minutes after the last thunder is heard or flash of lightning is witnessed prior to resuming play.

c. Any subsequent thunder or lightning after the beginning of the 30-minute count will reset the clock and another 30-minute count should begin.

4. Review annually with all administrators, coaches and game personnel.

5. Inform student athletes of the lightning policy at start of season.

For more detailed information, refer to the "Lightning Safety" section contained in the NFHS Sports Medicine Handbook.

# **Revised and Approved October 2014**

### DISCLAIMER – NFHS Position Statements and Guidelines

The NFHS regularly distributes position statements and guidelines to promote public awareness of certain health and safety-related issues. Such information is neither exhaustive nor necessarily applicable to all circumstances or individuals, and is no substitute for consultation with appropriate health-care professionals. Statutes, codes or environmental conditions may be relevant. NFHS position statements or guidelines should be considered in conjunction with other pertinent materials when taking action or planning care. The NFHS reserves the right to rescind or modify any such document at any time.

# **APPENDIX D:**

**Venue Specific Maps** 

# CAFETERIA



G	Y	M



# GAME FIELD/TRACK



# PRACTICE FIELDS



# SOFTBALL FIELD

