Ashford School
Exertional Heat Illness Program & Annual Review

NOTE: This document was developed to provide student-athletes and parents/guardians with current and relevant information regarding Exertional Heat Illness. A new form is required to be read, signed, dated and kept on file by the student-athlete's associated school district annually to comply with Connecticut General Statutes Public Act No. 21-87, Section 1-f: An Act concerning Education and Training in Exertional Heat Illness for Coaches, Parents, Guardians and students.

- Mandatory Video for students and Parents/Guardians to watch:
https://www.youtube.com/watch?v=1lmy_o7k1B4

Part I – Exertional Heat Illness - **What is exertional heat illness?**

There are four types of Exertional Heat Illnesses:

1. Heat Cramps - are painful, involuntary cramping often in the legs, arms and abdomen with muscle contraction.
2. Heat Syncope - is a fainting episode that occurs when an individual in a hot environment does not have adequate blood flow to the brain and loses consciousness.
3. Heat Exhaustion - is the inability to continue to exercise in the heat due to cardiovascular insufficiency and energy depletion that may not be associated with physical collapse and is the most common heat related condition.
4. Heat Stroke - occurs when the body's temperature rises so much that the cooling system stops working. Heat Stroke is a life threatening condition and should be treated immediately.

Part II - Signs and Symptoms of Heat Exhaustion and Heat Stroke

	Signs and Symptoms	
Heat Exhaustion	Cool, moist skin Heavy sweating Headache Nausea or vomiting Dizziness	Lightheadedness Weakness Thirst Irritability Fast heart beat
Heat Stroke	Temperature greater than 105 F (40.5 C) Altered consciousness, disorientation or dizziness Headache Confusion or just look "out of it" Nausea or vomiting Loss of muscle function/balance Profuse sweating Rapid pulse Low blood pressure Quick breathing	

PART III - Heat Acclimatization and Prevention of Exertional Heat Illness

Heat acclimatization is a series of adaptations that helps the body prepare for exercise in the heat. These changes help the body maintain lower temperature and heart rate, enhance sweating, and store more water. The lower heart rate and body temperature means that athletes can exercise longer and at a higher intensity, which lowers the risk for heat illness. This complex series of changes or adaptations occur in a controlled environment over the course of 7 to 14 days.

To prevent exertional heat illness, a coach must be aware of an athlete's medical history. Some health conditions such as obesity can cause athletes to be more vulnerable to heat, which can lengthen their adaptation to the heat. A coach must make sure athletes are hydrating enough. Athletes should have unlimited access to water during exercise/activity. When exercise is greater than 60 minutes or in exercise is going to be intense and in the heat, athletes should have access to sports drinks. Coaches should encourage athletes to hydrate before and after practice. Every athletic program should have guidelines for activity regarding heat. The best practice for determining these guidelines is using a Wet Bulb Globe Temperature (WBGT). Activity should be modified based on the on-site WBGT reading. Coaches must keep track of the duration of practices by having a practice plan based on the heat acclimatization progression and periodization coaches are kept on track with regards to length and intensity of practice.

Part IV Treatment

Heat Cramps - rest, stretching of the muscle, and provide fluids for rehydration. .

Heat Syncope - cool the individual by moving them to a shaded/cool area and elevate legs to promote blood returning to the heart.

Heat Exhaustion - move the individual to a cool/shaded area and remove excess clothing; elevate legs to promote blood return; cool the individual with fans, rotating ice towels, or ice bags; and provide fluids for rehydration.

Heat Stroke - Remove all equipment and excess clothing; cool the individual as quickly as possible via whole body ice water immersion (place them in a **tub/stock tank** with ice and water approximately 35– 58°F); stir water and add ice throughout the cooling process. If immersion is not possible (no tub or no water supply), take the individual to a shaded, cool area and use rotating cold, wet towels to cover as much of the body surface as possible. Maintain airway, breathing and circulation, After cooling has been initiated, activate the EMS by calling 911. Exertional heat stroke has had a 100% survival rate when immediate cooling (via cold water immersion) was initiated within 10 minutes of collapse. Cooling should continue until the body temperature reaches 102°F, known as "Cool First, Transport Second."

RETURN TO PLAY

Individuals suffering from heat cramps may return to play as soon as cramp has subsided. Individuals who suffer from an EHI must be cleared by a healthcare professional. The athlete must be asymptomatic and lab tests must be normal. The length of recovery time is primarily dictated by the severity of the incident. In cases of heat stroke, the athlete should avoid exercise for at least one (1) week after the incident. When the athlete returns, they should begin a gradual RTP protocol in which they are under the direct supervision of an appropriate health-care professional such as an athletic trainer or physician. The type and length of the RTP program may vary among individuals, but a general program may include:

- · Easy-to-moderate exercise in a climate-controlled environment for several days, followed by strenuous exercise in a climate-controlled environment for several days
- · Easy-to-moderate exercise in the heat for several days, followed by strenuous exercise in the heat for several days
- · If applicable to the individuals sport: easy-to-moderate exercise in the heat with equipment for several days, followed by strenuous exercise in the heat with equipment for several days

Please indicate on the athletic permission form that you have read and understand this document the "Student and Parent Exertional Heat Illness Informed Consent Form", viewed resource video and understand the severities associated with exertional heat illness and the need for immediate treatment of such injuries.

Sources:
Korey Stringer Institute
Special Thanks to Mark Aceto, **LAT, ATC, CSCS**