

Combat Heat Stress Injuries in Athletics to Save Lives and Win Games

It's an evening news report that has become far too common in America. A high school or college football player practicing during the sweltering summer heat becomes dizzy. His coach tells him to drink some water and lie down, but it's already too late. The boy collapses and dies. An autopsy soon reveals heat stroke to be the cause of death. The tragedy is that cases like these are entirely preventable.



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HEAT STRESS INJURIES

Between 1995 and 2012, 68 football players died from heat stroke. Even more athletes practicing in hot weather have suffered heat stress injuries, threatening their gameday readiness and putting season at risk.

Heat stress occurs when the body cannot cool itself sufficiently through sweating, resulting in the dangerous elevation of core body temperature.

Symptoms may include heavy sweating, extreme weakness or fatigue, dizziness, confusion, nausea, fast heartbeat, clammy/moist skin, pale or flushed complexion, muscle cramps, slightly elevated body temperature, and fast and shallow breathing. It's important to note that many of these symptoms may never occur, even in the event of heat stress. If not quickly treated, a person may experience heat rash, cramps, exhaustion, damage to vital organs, and death from heat stroke.

AT-RISK ATHLETES AND COACHES

The safety of its students and staff should be the number one priority of every college and high school athletic program. Young people and older individuals are particularly susceptible to heat stress. Sixteen of the 17 hottest years on record have occurred since the year 2000. With this trend expected to continue, student-athletes and older staff members giving their all on the field are vulnerable to a potentially fatal danger.

At temperatures below 82°F, the rate of heat stress or exhaustion during practice is 0.23 per 1,000 athletes exposed. When temperatures rise to over 90°F, common during summer throughout the country, heat stress injuries jump to 4.12 per 1,000 athletes exposed. That's an increase of nearly 1,800%.



Athletes may not display all or any symptom, and are unreliable to assess their own health. They are likely to say they feel fine, **especially athletes who are competitive by nature and seek to push through the pain.**

Cheerleaders have the highest rate of heat stress injuries among high school and college female athletes. Larger athletes, typical of football linemen for example, are at high risk and can succumb to heat stress more quickly and more gravely than their peers. Members of the team suffering from diabetes, heart disease, poor circulation, and mental health problems are all at elevated risk. The consumption of energy drinks, popular among athletes, also increases incidences of heat stress injuries.

DECREASED PERFORMANCE

In addition to safety concerns, both athletes and coaches exhibit decreased performance due to heat stress. Poor practices translates into more losses during the season, which could spell disaster for coaches in competitive positions where championships are expected, placing their jobs in jeopardy.

An athlete that has suffered from a moderate to severe heat stress injury may be sidelined 1-3 weeks before reaching full recovery. If a star player is on the injured list, then the impact of the loss could reverberate throughout the entire season. In the event of permanent organ or central nervous system damage, the athlete is likely never to return to competitive play.

HEAT STRESS MONITORING

The tragedy of heat stress injuries is that they are 100% preventable. No young athlete or staff member need ever suffer from even a temporary heat-related illness. It's the responsibility of school administrators and facility managers to take proper precautions that ensure the heat safety of all their team members.

Coaches and trainers need to remain vigilant about monitoring the ambient temperature during practices and games. A heat index of 82°F or above should put monitors on alert. **A heat index of 90°F to 95°F, requires elevated attention. And a heat index over 95°F presents a high risk of danger,** so coaches should adjust practices in the name of heat safety.

Frequent rest breaks, moving into shaded areas, and keeping team members well-hydrated with cool, non-caffeinated beverages during high temperatures are all great techniques to avoid heat stress. Even how you implement two-a-days matter in football. These should start in light athletic wear, and increase over a week to include pads. Starting in pads does not allow athletes to acclimate.

HEAT STRESS TREATMENT

It's critical that staff members are trained to identify the symptoms of heat stress. Heavy sweating, extreme fatigue, dizziness, cramps, vomiting, fast and shallow breathing, even slightly elevated body temperatures are all signals that an individual is suffering from heat stress and treatment must be



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delivered immediately. Having the person rest, take a cool shower or bath, applying ice, or blowing cool, moist air can help get their body temperature to normal levels.

Individuals may not display all or any symptom, and are unreliable to assess their own health. They are likely to say they feel fine, especially athletes who are competitive by nature and seek to push through the pain.

If someone displaying symptoms of heat stress does not improve within 60 minutes, then transport the individual to urgent care or an emergency room for further evaluation. **Chills, throbbing headaches, hallucinations, slurred speech, confusion/dizziness, and a body temperature near 103°F are all signs of heat stroke and require immediate medical attention.**

SOLUTIONS FOR HEAT SAFETY

While it's impossible to control the weather, the Power Breezer mobile cooling unit is a heat safety product that can lower temperatures at large outdoor areas by as much as 27°F. It creates a cool down zone on the sideline, baseball dugout, or the practice field where athletes and staff members can keep their body temperature in check. It can also be used near viewing areas for the comfort of spectators.

The highly portable **Power Breezer utilizes jet engine technology and the principles of fluid dynamics to easily cool a 1,500–3,000 square foot area with an atomized mist that helps keep skin hydrated, unlike a sideline fan which can lead to dehydration.** The unit requires only a 110v energy connection or can be powered by a small generator. It's self-sufficient, relying on a water tank that can last up to 5 days. Always ready to go, the heat safety product can be easily shipped, set up, and broken down with incredible ease.

OTHER OPPORTUNITIES FOR DEPLOYMENT

Sporting events aren't the only instances where a Power Breezer can be deployed. College and high school campuses can set them up in warehouses, workshops, maintenance areas, construction sites, loading docks, garages, outdoor event tents, and recreational areas. The cooling the unit provides not only better protects the heat safety of campus occupants, it also optimizes the productivity of workers. This ensures that the Power Breezer is delivering a high return on investment since it can be used in many occasions where cooling is needed.

ADOPTERS OF POWER BREEZER TECHNOLOGY

Deaths and injuries from heat stress are entirely avoidable by paying attention to the ambient temperature and the physical warning signs. High temperatures also reduce performance and productivity, so to get the best out of team members while looking out for their safety, invest in the rugged, outdoor Power Breezer cooling solution. Current adopters include many Div IA and professional football teams. Look for us on the sidelines.

To discover how the Power Breezer heat safety product can protect your students and staff, while giving them a competitive advantage to bring home more trophies, contact a representative at PowerBreezer.com.



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