Summer's high temperatures put student athletes at increased risk of heat illness. There are several types of heat illness. They range in severity, from heat cramps and heat exhaustion, which are common but not severe, to heat stroke, which can be deadly. Although heat illnesses can be fatal, death is preventable if they're quickly recognized and properly treated.

DEHYDRATION AND HEAT ILLNESSES

As a rule-of-thumb, most athletes should consume 200 to 300 milliliters of fluid every 15 MINUTES OF EXERCISE.

It takes only 30 MINUTES for cell damage to occur with a core body temperature of 105 degrees.

Currently, 13 states have heat-acclimatization policies, for secondary school athletics with New Jersey being the first.

Exertional heat stroke is one of the top three killers of athletes and soldiers in training.

• From 2010-15, 20 athletic heat stroke fatalities were reported.
• It takes seven to 14 days for a body to adapt to exercising in the heat.
• Dehydration at levels of 3 to 4 percent body mass loss can reduce muscle strength by an estimated 2 percent.

SAFETY TIPS

Have sports drinks on hand for workout sessions lasting longer than an hour.

Keep beverages cold – cold beverages are consumed 50 percent more than warm beverages.

Hydrate before, during and after activity.

Remove unnecessary equipment, such as helmets and padding, when environmental conditions become extreme.

Clothing worn by athletes should be light colored, lightweight and protect against the sun.

• For the first week or so, hold shorter practices with lighter equipment so players can acclimate to the heat.
• Follow a work-to-rest ratio, such as 10-minute breaks after 40 minutes of exercise.
• Get an accurate measurement of heat stress using a wet-bulb globe temperature, which accounts for ambient temperature, relative humidity and radiation from the sun.
• If someone is suffering from exertional heat stroke, remember to cool first and transport second.
• Have large cold tubs ready before all practices and games in case cold water immersion is needed to treat exertional heat stroke.

Infographic courtesy of the National Athletic Trainers' Association, www.nata.org

Signs of Minor Heat Illness

Dizziness
Cramps, muscular tightening and spasms
Lightheadedness, when not associated with other symptoms

Early Warning Signs of Exertional Heat Stroke

Headache, dizziness, confusion and disorientation
Excessive sweating and/or flushing
Fatigue
Nausea and/or vomiting
Chills and/or goose bumps

Signs of Exertional Heat Stroke

Core body temperature of more than 105 degrees
Signs of nervous system dysfunction, such as confusion, aggression and loss of consciousness

Increased heart rate
Rapid breathing
Seizures
Low blood pressure

Sources: Korey Stringer Institute, American Medical Society for Sports Medicine, NATA