

HEAT-RELATED ILLNESS PREVENTION

Preventing heat-related illnesses in schools requires preparation, awareness, and consistent routines across schools, coaches, athletes, and families. This resource outlines key steps for reducing risk—through safe acclimatization, proper hydration, access to cooling supplies, and training for both staff and the wider school community. When schools commit to these practices, they not only safeguard the health of athletes but also create a stronger culture of safety, performance, and teamwork.



Acclimatization

- Allow 10-14 days of practice/training with the first few days consisting of light activity while gradually increasing to more intense exercise over the two-week period.
- Train or practice in the early morning or late evening, while keeping in mind that humidity tends to be highest in the morning.



Hydration

- Drink plenty of water before, during, and after activity.
- Utilize sports drinks to maintain electrolytes.
- Develop a hydration plan that accounts for changing environmental conditions in your area so that teams clearly understand how often to break for regular fluid replacement on any given day or hour.

Supplies

- Written and practiced action plans for heat-related illnesses
- List of staff who are trained in CPR and first aid
- List of students' emergency contact numbers
- Gel packs
- Cooling towels
- Phase-change cooling vests
- Portable shade structures, such as umbrellas or pop up canopy tents
- 150-gallon rubber tubs or other large containers for cold water immersion
- Ice-filled coolers with water and sports drinks
- Spray bottles or portable misting fans

Training

- Provide educational materials so that any member of the school community can identify signs of heat-related illnesses and intervene.
- Student athletes especially need awareness to understand the symptoms clearly so they can intervene for themselves and their teammates.
- Teach proper operation and maintenance of cooling equipment.
- Distribute protocols for responding to emergencies so that support personnel can respond immediately with appropriate action.

EducationWeek[®]

SOURCES: Education Week reporting,
National Federation of State High School Associations
(NFHS) Learning Center
Icons: Getty

NOTE: The National Federation of State High School Associations provides several free online courses.

HEAT-RELATED ILLNESS

KNOW THE SIGNS

Recognizing the early warning signs can make all the difference between a quick recovery and a medical emergency. This resource page outlines the symptoms of heat exhaustion and heat stroke, explains how they differ, and provides guidance on when urgent medical attention is required.

Left untreated, heat exhaustion can develop into serious health complications like **heat stroke**.



Body temperature:
101 -104 degrees



Body temperature:
104 degrees+

Heat exhaustion

Heat exhaustion is the body's response to a loss of water and salt, usually through excessive sweating. With heat exhaustion, the person is fully aware and suffering does not include any persistent disruptions to brain function.

Symptoms may include:

- Heavy sweating
- Cold, pale, and clammy skin
- Weakness
- Headache
- Nausea or vomiting
- Cramps or muscle spasms
- Temporary changes to mental state such as confusion or irritability
- Fast, weak pulse
- Thirst
- Decreased urine output

Recommendations for treating:

- Move person to shaded or air-conditioned area
- Remove extra clothing and equipment
- Cool person with cold water, fans and/or cold towels
- Have person lie with legs raised above heart level
- Encourage person to drink chilled water or sports drink if not nauseated or vomiting
- **If condition persists, seek medical attention**



Heat exhaustion usually can be treated at home or school as long as the affected individual can replace the lost fluid and find a cool place to rest. If nausea and vomiting prevent rehydration, the individual should **seek medical attention** and may need IV fluids for rehydration.

Heat stroke

Heat stroke can occur when the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Heat stroke begins to affect brain function, causing changes in ability to think clearly.

Medical treatment is needed urgently, and delay can be fatal if immediate action is not taken.

Symptoms may include:

- Sustained confusion, agitation, or hallucinations
- Blurred vision
- Fatigue
- Dizziness
- Loss of consciousness or seizures
- Hot, red, dry, or damp skin

Recommendations for treating:

- **Do the cool FIRST, transport SECOND method**
- Remove extra clothing and equipment
- Immerse athlete in cold water
- If immersion is not possible, use cold water, wet towels, fans, ice packs, etc.
- Rapidly cooling the body temperature to 102 degrees in 30 minutes is imperative
- **Call emergency medical services**

Return to play after heat illness:

- Only with a doctor's approval