



# California School Nurses Organization

## Extreme Heat

### Position Statement

Ensuring the health and safety of students during school activities is an important role of the school nurse. Students participate in an array of outdoor activities while at school including recess, physical education, expanded learning, marching bands, extracurricular sport activities and interscholastic sports. Outdoor activities expose students to climatic conditions one of which is extreme heat. According to the Centers for Disease Control and Prevention ([2024](#)), heat related deaths and illnesses are preventable and approximately 1,220 people annually in the United States die from extreme heat. Relevant to the educational setting, the California Department of Public Health ([2024](#)) identifies the following individuals as high-risk for extreme heat vulnerability including unhoused people, infants and children, those with chronic health conditions, people with disabilities, pregnant people, and those with low income.

Extreme heat is defined as significantly hotter than average temperatures that are above 90 degrees and that last more than two days ([United States Department of Homeland Security, 2024](#)). Heat stress and heat conditions are completely preventable if evidence-based measures are put into place.

#### **Rationale:**

Through advocacy, assessment, education, implementation and evaluation, the school nurse is instrumental in walking through the elements to prevent and intervene in the event of heat stress. School nurse advocacy includes ensuring districts adopt extreme heat prevention and intervention policies. These policies must include following [California Education Code Section 35179.4](#), which requires CIF involved schools to develop a written emergency action plan in place that describes the location of emergency medical equipment and procedures to be followed in the event of sudden cardiac arrest and other medical emergencies, including concussion and heat illness, related to the athletic program's activities or events. Additionally, CIF involved schools require developing guidelines that shall identify the environmental conditions at which a school shall limit and prohibit practice and play. These guidelines shall include information regarding the accurate measurement of environmental heat stress at the site of the athletic activity, including the use of Wet Bulb Globe Temperature (WBGT) to determine ambient temperature, relative humidity, wind speed, and solar radiation from the sun, including sun angle and cloud cover. The Guidelines developed shall identify the environmental conditions at which a school shall have a method to institute whole-body cooling to treat a student athlete with exertional heat illness, especially heat stroke, that is easily accessible at all practice and

contest venues. The school nurse should encourage all districts and schools, regardless of CIF involvement to monitor weather conditions and recommendations made by the California Department of Public Health.

Assessment by the school nurse, includes examining activities, schedules and conditions that place students at risk for extreme heat and take measures to mitigate those conditions. School nurses can recognize the conditions (Leiva and Church, 2023) that place students at risk as well as be aware of the signs and symptoms of heat related conditions including heat stress, heat exhaustion and heat stroke (National Institute for Occupational Safety and Health (NIOSH), 2024). The school nurse is the optimal professional to develop an [individualized heat care plan](#) for students with known heat stress sensitivities. This plan should include input from the student's primary health care provider, parents, and student.

The school nurse should work in concert with administrators, coaches, teachers and other school site staff to ensure the availability of needed equipment, including but not limited to AED, whole-body cooling mechanism, cold packs, water availability during activities and shade tents.

Providing health education on prevention of heat related conditions and early intervention to parents, administrators, educational staff, pupil support personnel, coaches, other athletic personnel and students is a critical role of the school nurse. The school nurse can champion students to look out for one another in a peer-linked approach.

Implementation includes using evidence-based practices to support student and athletic acclimation to weather conditions. Following CDPH heat-related guidance. Frequent hydration breaks and recovery in high heat conditions. Implement a whole-body cooling to treat a student athlete with exertional heat illness. Monitoring student athletics and ensuring safe "self-reporting" processes when heat or over exertion is experienced. Tracking the number of students that report heat stress symptoms/conditions and revising current practice to prevent further incidence.

Evaluation by the school nurse includes examining data related to heat stress incidence and making changes to practices. These changes include involving administrators, coaches and other athletic staff as well as student feedback.

## References

California Department of Public Health (2024). Extreme heat: Be informed.

[https://www.cdph.ca.gov/Programs/EPO/Pages/Extreme%20Heat%20Pages/BI\\_Natural-Disasters\\_Extreme-Heat.aspx](https://www.cdph.ca.gov/Programs/EPO/Pages/Extreme%20Heat%20Pages/BI_Natural-Disasters_Extreme-Heat.aspx)

Centers of Disease Control and Prevention (2024). Extreme heat. <https://www.cdc.gov/extreme-heat/about/index.html>

California Education Code. (2024).

Leiva, D. F., Church, B. (2023). Heat Illness. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK553117/>

National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, (2024). Heat stress-heat related illnesses. <https://www.cdc.gov/niosh/topics/heatstress/heatreillness.html>

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