



## Memorandum

**To:** State Association Executive Directors and Commissioners  
**From:** Alex Diamond, DO, MPH, FAAP, FAMSSM (NFHS SMAC Chair)  
Bob Colgate, NFHS Director of Sports and Sports Medicine  
**Subject:** Preventing Exertional Heat Stroke in Football: Time for a Paradigm Shift  
**Date:** August 1, 2024

Recently, a foundational paper co-authored by a multidisciplinary group including the NFHS and titled "Preventing Exertional Heat Stroke in Football: Time for a Paradigm Shift" was published in a leading sports medicine journal (**See following pages**). Exertional Heat Stroke (EHS) is consistently among the top three causes of death in sports and football has the highest incidence of EHS in the United States. Specifically, 100% of high school (and college) EHS deaths in football occurred during conditioning sessions and 97% of all football EHS related deaths occurred in linemen. As the clear at-risk population, linemen require additional measures beyond the universal interventions typically employed in the prevention of heat related injuries.

**The authors remind us of the following key principles...**

**\*Things to Know - Football EHS is tied to:**

1. High-intensity drills and conditioning that is not specific to individual player positions.
2. Physical exertion as punishment.
3. Failure to modify physical activity for high heat and humidity.
4. Failure to recognize early signs and symptoms of EHS.
5. Death when cooling is delayed.

**\*Things to 'Do' - To prevent football EHS:**

1. All training and conditioning should be position specific.
2. Physical activity should be modified per the heat load.
3. Understand that some players have a "do-or-die" mentality that supersedes their personal safety.
4. Never use physical exertion as punishment.
5. Eliminate conditioning tests, serial sprints, and any reckless drills that are inappropriate for linemen.
6. Consider air-conditioned venues for linemen during hot practices.

Implementation of new or enhanced existing clinical policy guidelines requires leadership initiated and supported change by all involved. While it is the role of football coaches and strength coaches who *have* the responsibility, authority, and expertise to define 'how' to train, we encourage all stakeholders to familiarize themselves with these research-based recommendations.

Please feel free to share this attached research study with all of your respective member schools, football coaches, state association SMAC and your staff.

Please let the NFHS SMAC know if you need anything during the 2024-25 school year.

Thanks as always for what you do for our students across the country!

**Alex Diamond, DO, MPH, FAAP, FAMSSM**  
**Chair – NFHS Sports Medicine Advisory Committee (SMAC)**