

U.S. Soccer Federation Issues New Hydration Guidelines to Prevent Dangerous Heat Illness in Young Players

New first-of-its-kind study shows chronic dehydration is a significant issue among youth soccer players

CHICAGO - Adolescent males typically lose up to 1.5 liters of sweat per hour when performing intense soccer activities in the heat, says a new first-of-its-kind study from the University of Connecticut presented this week at the American College of Sports Medicine (ACSM) annual conference in Denver, Colorado. The three-year research project also showed that nearly two-thirds of male and female youth soccer players are dehydrated before they even take the field and the average hydration routine observed by parents and coaches isn't preventing the problem. However, educational intervention implemented by researchers positively influenced hydration knowledge and attitudes among youth soccer players, and improved the chances of proper hydration status on the field.

This study, coupled with the extra attention soccer is getting leading into the sport's most elite international tournament and the quickly approaching heat of summer, has prompted the U.S. Soccer Federation - the governing body of soccer in the United States - to develop and distribute new Youth Soccer Heat and Hydration Guidelines to coaches and parents nationwide. The goal is to help prevent the potentially deadly effects of heat illness among the 14 million U.S. children who play soccer and, as it relates to more elite levels, increase physical performance of the next generation of US soccer stars.

"The release of the new Youth Hydration Guidelines by U.S. Soccer is a big step in better protecting youth soccer players from dehydration and heat illness," said Bruce Arena, manager of the U.S. Men's National Team. "Every coach out there should be aware of the dangers of dehydration and should be taking the important steps to prevent it among their players. When proper hydration isn't taken into consideration, coaches are not only risking inadequate performance from their players, but, in some cases, serious injury."

The guidelines provide coaches with an overview of the latest research and information regarding: 1) physiological and environmental factors that place young soccer players at risk for heat illness, 2) signs of dehydration and heat illness, 3) prevention techniques and 4) recommended fluid guidelines that coaches, parents and players should be following on the field of play.

"We were amazed that two-thirds of youth players arrived at practice significantly dehydrated and, in turn, were potentially at-risk for heat illness from the moment they stepped on the field," said Douglas Casa, lead researcher and director of athletic

training at the University of Connecticut. "Findings like this reinforce the fact that youth soccer players should be drinking before, during and after practice and games. They should avoid carbonated and caffeinated beverages, and consume a sports drink with electrolytes such as sodium, which research shows is better than water to keep kids hydrated for optimal safety."

Casa also points out the importance of the findings in the study and how educational intervention implemented by researchers positively influenced hydration attitudes among youth soccer players -- and that this could be the most important step in eliminating chronic dehydration as a significant issue among kids who play soccer.

Key points from the guidelines include making sure youth players gradually adapt to increased exposure to high temperatures and humidity; recognize the signs of heat illness; and realize that thirst is not an accurate indication of fluid needs. To ensure these points are memorable for coaches, parents and kids, the U.S. Soccer Federation has developed the acronym - G.O.A.L. - which stands for:

- Get acclimated - bodies need time to gradually adapt to increased exposure to high temperatures and humidity (especially young athletes)
- On schedule drinking- Youth athletes should be encouraged to drink on a schedule before they become thirsty, and should drink before, during and after practice and games
- Always bring a sports drink- replacing electrolytes and providing energy is crucial to keeping kids safe and performing at their best
- Learn the signs - if someone becomes unusually fatigued, dizzy, and nauseous or has a headache during exercise in the heat, have them stop, rest and drink fluids

As one of the best means to preventing heat illness, The U.S. Soccer Federation recommends parents and coaches ensure children are well hydrated before practice and games. During activity, young athletes should drink on a schedule; because thirst is not an accurate indicator of fluid needs, athletes should drink before they become thirsty. The Federation plans to incorporate the Heat Illness and Hydration Guidelines into its already existing coaches' curriculum, reaching thousands of youth soccer coaches across the country.