

**SUMMARY OF “HOT TOPICS IN HEAT ILLNESS”
FREE COMMUNICATIONS SPEAKER PRESENTATIONS:**

Effects of Ice Slurry Consumption during a Warm-Weather Road Race: Luke Belval, ATC, Korey Stringer Institute

Ice slurry consumption before exercise has been shown to affect temperature response and performance. The purpose of this study was to determine if drinking an ice slushy during intense exercise in the heat allowed runners to stay cooler, feel cooler or perform better. Twenty-eight runners from the 2013 Falmouth (Mass.) Road Race were given an ice slushy at intervals during the race, with their temperature and perceptual responses being measured before and after. Subjects who drank the ice slurry during the race did not have lower body temperatures; however, they felt less thirsty and reported fewer symptoms of heat illnesses.

Use of the Discomfort Index (DI) as an Alternative Heat Stress Index (HSI): Jessica Miles, MAEd, ATC, LAT, University of North Georgia; Georgia heat illness project

Environmental conditions are one of the many factors associated with exertional heat illnesses, and there are many indices and scales that are used to evaluate environmental stress. The discomfort index (DI) is a simple heat stress index that doesn't require expensive equipment and is easily understandable by the athletic trainer to assess environmental risk. Interscholastic football athletes from 23 schools in Georgia participated in the study. Environmental conditions and injuries were collected daily at games and practices over two months and showed DI might be a worthy alternative compared to other heat stress indices and scales.

Effect of Educational Intervention on Hydration Behaviors, Status and Knowledge in High School Football Players: Koji Kanemura, MAT, ATC, LAT, University of Arkansas; the Miami Marlins

Hypohydration can negatively affect athletes, declining athletic performance and increasing heat illness risk. Study authors compared the short- and long-term effects of a one-time education program on hydration status and behaviors on two high school football teams (41 players). One received a brief educational intervention and one did not. Data show that 78 percent of high school football players show up to team activities hypohydrated. The five-minute educational intervention resulted in improved fluid intake and hydration status in 47 percent of players. Improvements in hydration behaviors, however, lasted less than three weeks following the intervention. Lastly, no differences were found in hydration knowledge, despite improvements in fluid intake behavior. Future investigations should examine repeated, or reiterated, hydration education for sustained improvement.

The Influence of Intermittent Hand Cooling on Core Body Temperature and Performance in the Heat While Wearing an American Football Uniform: Michael Sundeen, MS, ATC, Korey Stringer Institute; the Denver Broncos

In the sport of football it is important to offer an effective and logistically sound tool to reduce the heat stored in the body. Thirteen men each wearing an American football uniform participated in three trials: hydrated and cooling; cooling; and control. Researchers found a reduction in body temperature starting at the 60 minute mark and found a significant reduction when the individuals were hydrated and cooled. They also found up to an 8 percent improvement in performance and a 38 percent improvement in balance testing when comparing the hydrated and cooled vs. the controlled trials. Performing hand cooling and drinking fluids while on the sidelines may be a potential way to keep cool and increase performance in the heat.

The CoolShirt System Aids Thermoregulation during Exertion in a Hot Environment: Phillip Stamatis, ATC, Orthopedic Associates of Dutchess County

The purpose of this study was to test the efficacy of the CoolShirt System on thermoregulation in athletics during exercise in a warm environment. Results showed that the CoolShirt had no effect on core body temperature and thermal sensation of nine male varsity and recreational athletes. However, there was a significant difference in sweat loss and thermal sensation between test groups. While the CoolShirt System might aid in thermoregulation during exercise in a warm environment, it would not be an effective tool in the management of exertional hyperthermia.

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