

Heat Exposure and Injuries among High School Football Players

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American Football players are among the most susceptible athletes for exertional heat injuries. Heat safety policies have been implemented at the collegiate and professional levels to mitigate this danger but only recently have interscholastic programs at the high school level begun to develop safety programs. In 2012, the Georgia High Schools Association initiated a study of heat injuries to develop a set of heat safety guidelines geared specifically to their youth athletes. Data were collected from 25 high schools over a six year period, with information on the timing and length of practices, environmental conditions, and injuries. Environmental conditions recorded for each practice session included the wet bulb globe temperature (WBGT) and heat index values. Our study employs this novel dataset to examine associations of these environmental conditions and rate of heat injuries, and to assess guidelines for activity modification. In studying associations between environmental conditions and risk of heat injuries, we specifically compare the use of WBGT and heat index values as effective measures of heat stress, which to our knowledge has not previously been done.