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Heat Illness in Athletes Increases During Warm-Weather Training Months

Being aware of ways to prevent heat illness may help keep you in the game

By Peter H. Edwards, Jr., M.D.

As training for the fall soccer season heats up and hot temperatures continue, coaches, parents and players should remember the basics of temperature related illness. Heat exhaustion and heat stroke are serious medical conditions resulting from the body's inability to cool itself and maintain fluids. Risks factors for heat illness include both elevated humidity and temperature. Compared to adults, young soccer players are at increased risk of temperature related illness because they sweat less than adults and, consequently, are less able to cool their bodies.

What is heat exhaustion and heat stroke?
Heat illness is divided into two main categories: heat exhaustion and heat stroke. Heat exhaustion occurs when the core body temperature rises to between 100.4° F and 104° F. Symptoms of heat exhaustion include chills, nausea, mild confusion, headache and collapse. If a player experiences any of these symptoms during a game or practice, he or she should drink cold fluids, move to a cool location, and consider cold fluid immersion if the core body temperature reaches 104°.

Heat stroke, on the other hand, is a true medical emergency. Heat stroke occurs when the core body temperature rises above 104°. Symptoms include abnormal mental status and confusion, with or without profuse sweating and loss of consciousness, leading to seizure and possible coma. The final stage of heat stroke results in multisystem organ failure and potentially death. In heat stroke, both the severity of the temperature increase and its duration are of great importance. If a player experiences any of these symptoms, he or she should seek medical treatment as quickly as possible. Treatment will likely include ambulance transportation, cold IV fluid administration, cold immersion and supportive care.

Prevention measures key to decreasing heat illness
Prevention of heat related illness is the central component for avoiding catastrophic problems. Soccer coaches and parents should adjust practice times to the coolest period of the day. Drinking water and fluid replacement drinks often and wearing appropriate clothing for warm temperatures are essential. Practices should allow for acclimatization to occur and gradually increase training times in extremely hot weather. Parents need to recognize that the presence of other illnesses that cause fever also increase the risk of heat illness for up to three to five weeks.

If you see a player collapse during a hot soccer practice or game, first check for pulse and cardiac abnormalities. If a steady pulse is recognized, you should assume a heat related illness.

Having an awareness of heat illness prevention is far better than resorting to treatment measures. Avoiding practice conditions that place players at risk of heat illness is key to maintaining peak athletic participation for the fall soccer season.

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