Heat and Hydration Guidelines for Summer Soccer

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By Dev K. Mishra, M.D.

Summer camps and tournaments in most parts of the country will be played in hot, humid conditions. With the weather change, athletes are at higher risk for heat-related illness. What I would like to do below is to present a common sense guide to a preventable problem: heat-related illnesses, including dehydration, cramping, heat exhaustion, and heat stroke.

In general, young athletes are at higher risk for developing heat illness than adults. Children absorb heat faster than adults, they don't sweat as much (sweat helps the body cool), and often they don't "want" to drink fluids during exercise. These factors add up to a higher risk of heat illness than many adults. Fortunately there are a number of simple steps that can greatly reduce the risk of problems when playing in the heat.

On-Field Signs of Dehydration and Heat Illness

Most young athletes will first start to show signs of heat-related illness through dehydration. If left untreated, dehydration can progress to more severe problems such as muscle cramping, heat exhaustion, and a very severe problem called "heat stroke." Rather than providing you a medical textbook definition of heat illness, here are some signs of dehydration to look for in your players:

* Decreased performance
* Fatigue
* Weakness
* Irritability
* Nausea
* Headache
* Light-headedness
* Difficulty paying attention or following directions

As a parent or coach, chances are good that you know what your players' personality is from many day-to-day interactions. Sometimes it simply comes down to realizing that you're playing in hot weather, and the player "just doesn't look right." If that's the case, one of your first thoughts should be that the player is dehydrated. At that point, take some simple steps to treat the problem:

* Get the player off the field and let them rest in a cool, shaded place.
* Provide a sports drink (not carbonated, no caffeine).
* If the player doesn't start to feel better relatively soon (15-30 minutes), seek medical help.
* Prevent future dehydration (see below).

Preventing Dehydration and Heat Illness

There are a number of steps that can reduce the chances of heat illness developing.

Acclimatization can make a big difference in improving an athlete's ability to compete safely and successfully in hot weather. If your team shuts down at the end of June, but plans to play a tournament the second week in August, consider a mini-camp of about an hour a day for the week prior to the

tournament.

During practice and games, wear light-colored and lightweight materials. If there isn't adequate shade from trees, consider a pop-up tent for the players (and the parents!). Tournament directors and referees should consider relaxing their rules based upon weather conditions, such as allowing for a brief water break during each half, and perhaps also adding a few minutes to each halftime.

Here are some tips on what to drink, when to drink, and how much to drink to promote good hydration:

* Sports drinks are an excellent choice for hydration. Athletes can usually find a flavor they like, and the electrolytes (like sodium chloride) will stimulate thirst, help the body hold onto fluid, reduce the chance of cramping, and possibly improve performance.
* Avoid any drinks with caffeine or high fructose corn syrup, and no carbonated sodas.
* I like low-fat chocolate milk as another after-game alternative.
* The athlete should have 12-16 ounces of fluid up until about 30 minutes before the game or practice (remember that most sports drinks come in 20-ounce bottles).
* Keep sipping sports drinks or water during the practice or match.
* Start re-hydrating within 20 minutes of the conclusion of the match.

Research shows that the first 20 minutes are the most efficient time to start refueling. Try to take in 20 ounces; no need to guzzle this down, but once you start drinking try to finish the bottle over the next several minutes.

Following these simple guidelines will give your players a much better chance for safe and successful competition this summer.

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