

Fluid Replacement During Soccer Matches: Know the Facts

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As soccer athletes dribble, pass, and kick the ball across the field, their bodies build up heat. Sweat is produced in response to this increase in body temperature. As sweat evaporates from the skin, the heat dissipates decreasing an athlete's body temperature. This cooling system can assist performance best if an athlete replaces body fluid losses due to sweat. If additional fluid is not consumed, dehydration can begin to develop. This lack of fluid can affect both the endurance and technical skills of soccer athletes. Replenishing fluids throughout a soccer match is key to maintaining peak performance. The following fluid facts can help athletes to maintain their intensity throughout the entire match.

FACT: Athletes need to drink before they are thirsty.

Thirst is not a sufficient indicator of fluid needs for soccer athletes. If athletes wait until they are thirsty, dehydration may already be developing. Drinking on a schedule will optimize fluid stores for athletes. Drinking low-fat milk, 100% fruit or vegetable juices, water and low-fat soups throughout the day contribute fluid and nutrients to an athlete. Minimum ounces of fluid needed = weight (in lb) x 0.3 (this does not include fluids needed for exercise). Once practice or a match begins, water and sports drinks are the recommended choices.

FACT: Drinking fluids during soccer practice and matches is possible.

Generally, soccer players do not drink enough fluids during practice and competition to adequately replace their sweat losses. Yet, obtaining fluid during a practice or match is possible with preplanning and commitment. Consuming 4-8 oz of water or sports drink every 15 minutes will help to maintain intensity and delay fatigue. Opportunities for drinking during a soccer match include when a goal is scored, the ball goes out of play and during an injury time-out. Half-time is another important time for soccer athletes to replenish fluid stores. Personalized, chilled water bottles placed along the sideline and in the goal can facilitate drinking. Having water bottles available during practice can help athletes to fine tune fluid replacement in

preparation for a match. Coaches are also encouraged to include water breaks during training. By keeping fluids close, reminding soccer athletes to drink, and practicing fluid intake during training, soccer athletes can develop effective fluid replacement habits during soccer matches.

FACT: Losing as little as 2% of body weight via sweat can impair performance.

Replenishing fluid losses due to sweat is essential to maintaining high level performance throughout the match. It is not by chance that on average 30% of goals are scored in the final 15 minutes of play. Water is used to regulate body temperature. Water also helps maintain proper muscle tone by giving muscles their natural ability to contract and by preventing dehydration. If sweat losses are not replaced adequately, concentration and coordination can be impaired. Endurance capacity also decreases with a lack of fluid. Losses of as little as 2% of body weight can impact performance.

FACT: Making wise fluid choices during activity will contribute to peak performance.

During exercise, the two best choices for fluid replacement are water and sports drinks. For matches lasting longer than one hour, sports drinks containing 4-8% carbohydrate can provide energy, sodium and potassium without discomfort. Beverages to avoid during exercise include those containing more than 10 percent carbohydrate, such as a soda. These beverages have a longer absorption time and may cause nausea, diarrhea, and bloating. Beverages containing caffeine, carbonation or fruit juice are also best avoided immediately before and during exercise. After practice or a match, soccer athletes can expand their beverage choices to include low-fat milk, 100% fruit juices, lemonade, and broth-based soups.

Being knowledgeable about fluid facts will assist soccer athletes in planning a fluid replacement strategy during a match or practice. Drinking water and/or sports drinks during training and matches are critical for maintaining optimal performance and avoiding dehydration. Making water accessible to athletes and encouraging drinking during stoppages in the match will facilitate fluid replacement. Soccer is a game of endurance. Maintain the energy and concentration for peak performance by replenishing fluid losses during the match.