

SPORTS NUTRITION MYTHS AND FACTS



MYTH: Football players should not eat carbohydrate, specifically sugars, shortly before practices or games because it might cause blood sugar to spike and crash, hurting performance.

FACT: While some football players who eat carbohydrate shortly before practices or games may experience a rise in blood sugar followed by a “dip” after the onset of exercise, most do not feel an impact and research shows overall performance is not impaired. In fact, carbohydrate consumed within about the hour prior to practices or games behaves the same metabolically as that consumed during practices or games, and essentially begins during exercise fueling. This behavior may be especially important for athletes who do not have the opportunity to eat additional carbohydrate during exercise.¹

MYTH: A large serving of protein will improve my muscle recovery after practices and games.

FACT: When it comes to protein, more isn't better. Research shows that a small amount of high-quality protein (10-20 g) will stimulate muscle protein synthesis. Researchers have found that intakes greater than about 20 g of protein provide little or no further stimulus for muscle protein synthesis after exercise. Consuming more dietary protein will result in the protein being used as fuel instead of muscle building.²

MYTH: Football players lose only water when they sweat.

FACT: If that were true, sweat wouldn't taste salty and football players in the heat probably wouldn't cramp so often. Sweat contains mainly sodium (salt) and chloride but also other electrolytes (minerals) like potassium and magnesium. As sodium is lost through sweat, the body's supply is diminished and with large losses muscles are more likely to cramp up.³ Sports drinks help keep the body hydrated because they contain electrolytes, particularly sodium, that help retain fluid and replenish what's lost in sweat.⁴ Water does not.

MYTH: Potassium is the most critical electrolyte.

FACT: Not true. Sodium is the primary electrolyte required before, during and following sweaty exercise.⁴ In fact, it's possible for some football players to lose more than 10 g of salt in just one day of hard training. Drinking a sports drink with sodium is important, because sodium helps maintain the physiological desire to drink, enhances fluid absorption and promotes fluid balance.⁵



MYTH: Sports drinks are only for endurance athletes or athletes working out or competing for more than an hour.

FACT: Sports drinks provide both fluid and electrolytes for hydration, as well as carbohydrate for energy. Regardless of duration, athletes should drink enough fluid during exercise to limit body weight changes to about 2%.⁴ Including sodium with the fluid is important for the reasons described previously. Additionally, some research has demonstrated that very small amounts of carbohydrate (even a mouth rinse) may result in performance improvements for reasonably intense exercise of between 30-60 minutes.¹ As the duration of exercise increases, so does the amount of carbohydrate needed to improve performance.¹

MYTH: Protein improves performance when it is ingested during practices and games.

FACT: The most recent research shows that protein in a sports drink consumed during or before practices or games does not provide any additional performance benefit.² In addition, research suggests that adding protein to a sports drink can slow gastric emptying and produce a “chalky” taste, which may make it challenging for football players to drink enough to stay hydrated.⁶ Especially when consumed with carbohydrates, it is better to consume protein after practices and games, because science has repeatedly shown that consuming protein close to the exercise bout, especially after exercise, helps with muscle protein synthesis.²

MYTH: Milk protein is not as effective as whey protein for recovery.

FACT: Milk protein is a blend of whey and casein proteins, and has been shown in a body of research to be effective in stimulating the generation of new muscle proteins when consumed following exercise.² Both whey and milk proteins are high-quality protein sources that provide the essential amino acids, which are the amino acids the body cannot produce on its own.

References:

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- 3 Bergeron. M.F. Heat cramps: Fluids and electrolyte challenges during tennis in the heat. *J Sci Med Sport*. 2003;6:19-27.
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