

Nutrition

It has long been known that proper nutrition has a significant impact on athletic performance. Recent research is breaking down the affect on molecular and cellular processes that occur in muscle during exercise and recovery. Ingestion of a carbohydrate electrolyte beverage (Gatorade, Powerade, etc) has been shown to enhance performance in several studies. It should be noted that these athletes were adults not children. A study from the International Journal of Sports Nutrition and Exercise Metabolism 2003 and one from Sports Exercise 2006 studied the impact of combining protein with a carbohydrate beverage. The net result indicated that the addition of protein during exercise did not improve performance in that particular activity. The addition of amino acids during exercise also failed to show improvement in performance.

One study on post performance ingestion of carbohydrate and protein drink did show improvement in the time to exhaustion in the subsequent exercise activity. Interestingly, a study of the consumption of chocolate milk after exercise compared to a carbohydrate drink alone and a carbohydrate-protein drink showed benefit in the milk group and carbohydrate alone group over the carbohydrate-protein group. No good explanation to explain this was given. There must be some other factor not identified in the milk besides the protein that lead to those results.

In summary, consuming carbohydrate drinks during exercise has proven to be beneficial in some adult athletes.. As we discussed in the past, there may not be as much benefit in the consumption of high glucose containing beverages for the young athlete. Plain water for hydration is usually adequate for hydration. The addition of protein during exercise did not show an immediate benefit in performance. The addition of protein after exercise (10-20 grams) may improve long term training benefits or participation in a subsequent event such as a tournament.