The New Jersey
Police Chief
The Official Publication of the New Jersey State Association of Chiefs of Police

Vol. 18, No. 3 • March 2012

2012 New Police Chiefs Orientation Program

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Got [Chocolate] Milk?

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One of the most overlooked aspects of training is recovery. The fact of the matter is that your body cannot adapt to the demands of training unless you get an adequate amount of recovery between workouts.

Nutrition is a critical part of the recovery process. It has been known for many years that consuming carbohydrates soon after intense training quickens the recovery process by restocking your depleted glycogen supply. (Note: Glycogen is the storage form of carbohydrate.)

There are a few reasons why fluids are a better choice than foods to deliver carbohydrates after training. For one thing, your appetite is suppressed immediately after intense efforts which makes it more appealing to consume fluids. In addition, fluids help to rehydrate your body after training; and cold fluids help to cool your body after training. Finally, fluids tend to be more readily accessible than foods.

Some scientific evidence suggests that combining carbohydrates with a small amount of protein can expedite recovery by improving the rate at which your glycogen stores are replenished. However, it appears that simply increasing the quantity of post-activity carbohydrates yields the same results. Nonetheless, consuming a small amount of protein following an intense activity may aid in the repair of muscle tissue.

One of the latest substances that has been touted as a recovery fluid is low-fat chocolate milk. It's believed that this type of milk has a near-perfect combination of amino acids and carbohydrates which helps to stimulate the synthesis of muscle protein. An added benefit is that chocolate milk has a few key nutrients, including Vitamin D and calcium.

A growing body of research has investigated the effects of low-fat chocolate milk on recovery. Most of the research shows that chocolate milk is just as good as a carbohydrate beverage in this regard.

In a recent study that was conducted at Kean University (Union, NJ), 13 male and female varsity athletes who were participating in pre-season soccer camp were randomly assigned to receive either low-fat chocolate milk or a carbohydrate-electrolyte beverage (Gatorade) on one day and the alternate beverage on another day. These two days were separated by a two-day "washout" period in which neither beverage was consumed. The athletes drank the beverage immediately after the morning soccer practice and again two hours later. Following the afternoon practice, the athletes performed a shuttle run in which they sprinted back and forth between two lines that were 20 meters apart. This was done to the point of exhaustion. The athletes performed at least as good after drinking the chocolate milk. The study had a design flaw, however. Although the volume of each beverage was the same, the amount of calories was vastly different: The chocolate milk provided roughly three times as many calories as the carbohydrate-electrolyte beverage and this may have influenced the results.

But another recent study controlled for the number of calories. In this study, nine cyclists and one triathlete were randomly assigned to receive either low-fat chocolate milk or a carbohydrate-protein beverage (Endurox R4) for one week and the alternate beverage for one week. These two weeks were separated by a one-week "washout" period in which neither beverage was consumed. The subjects drank the beverage immediately after training and again two hours later. At the end of each week in which the subjects drank one of the beverages, they pedaled a stationary bike to the point of exhaustion. The subjects performed at least as good after drinking the chocolate milk. An interesting footnote to this study is that all 10 subjects preferred the taste and consistency of the chocolate milk.

If chocolate milk is employed as a recovery fluid, understand that it has several limitations. First, milk may provide a good deal more calories than are desired. Needless to say, this is a major concern if weight loss is a goal. Second, milk can cause gastrointestinal upset, especially in those who are lactose-intolerant. Third, unlike most other recovery fluids, milk must remain refrigerated until it's used.

Bottom line: Low-fat chocolate milk is an inexpensive and effective recovery beverage.

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