

# New research: Post-exercise recovery advantages of lowfat chocolate milk

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New research suggests an effective recovery drink may already be in your refrigerator: lowfat chocolate milk. Grabbing lowfat chocolate milk after a tough workout helped give both trained and amateur athletes a post-exercise training advantage, according to three new studies presented at the American College of Sports Medicine and published in the *Journal of Strength and Conditioning Research* this month. Athletes in the studies who had a post-exercise lowfat chocolate milk– with the right mix of carbs and high-quality protein – had improved training times, better body composition (more muscle, less fat) and were in better shape than their peers who drank typical sports beverages with carbohydrates only.

In three related studies, researchers at the University of Texas at Austin compared the [recovery](#) benefits of drinking lowfat [chocolate milk](#) after exercise to a carbohydrate beverage with the same calories (similar to a typical sports drink) and calorie-free beverages. The new research linked drinking lowfat chocolate milk after strenuous exercise to:

- **Improved Performance:** Following an exhausting ride, trained cyclists had significantly more power and rode faster, shaving about six minutes, on average, from their ride time when they recovered with lowfat chocolate milk compared to a carbohydrate sports drink and calorie-free beverage. The 10 cyclists rode for 90 minutes at a moderate intensity followed by 10 minutes of high intensity intervals. During a four-hour

recovery period, they drank one of the three recovery beverages immediately and two hours later before heading on a second 40 kilometer ride. (1)

- **Quicker Exercise Adaptation:** Compared to the other recovery drinks, chocolate milk drinkers had twice the improvement in  $V_{O2max}$  – a measure of aerobic fitness and adaptation – after a 4.5 week cycling regimen that included intense exercise five days a week, followed by one of the three recovery beverages. The study included 32 healthy but untrained male and female cyclists.(2)
- **Better Body Composition (More Muscle, Less Fat):** Chocolate milk drinkers gained more muscle and lost more fat during training, with a 3 pound lean muscle advantage at the end of the 4.5 weeks compared to athletes who grabbed a carbohydrate drink. The 32 healthy but untrained male and female cyclists rode for one hour, five days a week and drank one of the three recovery beverages immediately following and one hour post-exercise. (3)

"Collectively, our research suggests that lowfat chocolate milk – easily accessible for most athletes – can improve performance and aid training for trained and amateur athletes faced with tough routines," said John L. Ivy, Ph.D, lead researcher on the University of Texas at Austin studies. "We may need more research to understand the exact mechanisms, but there's something that chocolate milk naturally has that likely gives it the post-exercise advantage."

Experts agree the two-hour window after exercise is an important, yet often neglected, part of fitness routine. After strenuous exercise, this post-workout recovery period is critical for active people at all fitness levels to help make the most of a [workout](#) and stay in top shape for the

next workout.

### **More information:**

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2. Ferguson-Stegall L, McCleave EL, Ding Z, Doerner PG, Liu Y, Wang B, Dessard B, Kleinart M, Healy M, Lassiter G, Ivy JL. Aerobic exercise training adaptations are increased by post-exercise carbohydrate-protein supplementation [Abstract]. In: American College of Sports Medicine 58th Annual Meeting; 2011 May 31-Jun 4; Denver, CO. Poster nr D-29.
3. McCleave EL, Ferguson-Stegall L, Ding Z, Doerner PG, Liu Y, Kammer L, Wang B, Wang W, Hwang J, Ivy JL. Effects of aerobic training and nutritional supplementation on body composition, immune cells and inflammatory markers [Abstract]. IN: American College of Sports Medicine 58th Annual Meeting; 2011 May 31-Jun 4; Denver, CO. Poster nr C-24.

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