

Multi-Ingredient Pre-Workout & Exercise Performance

Published in *Journal of Strength and Conditioning Research* with Dr. Brian J. Martin

The Question

Do multi-ingredient pre-workout supplements — with or without caffeine and beta-alanine — improve power, endurance, blood flow, cognition, or mood in active adults?

Study Design

- 30 active adults (15 men, 15 women)
 - Randomized, double-blind, placebo-controlled, crossover trial
 - Compared:
 - BAC: With caffeine + beta-alanine
 - NBAC: Without caffeine/beta-alanine
 - Placebo: Calorie-matched control
 - Completed identical anaerobic, aerobic, cognitive, and vascular tests
-

Results

Both formulas improved exercise performance compared with a placebo. Anaerobic power rose by about 3% with either formula, and the caffeinated formula increased VO_2 peak time by ~4.4%. Blood flow improved with both; lactate rose post-exercise, indicating higher effort, and no notable effects were seen on cognition, mood, or hormones.

Takeaway

Using a multi-ingredient pre-workout before training can modestly improve power, endurance, and blood flow — with the caffeinated formula offering the strongest boost to aerobic performance.

Product Spotlight: AMPED™ Nitro

A high-performance pre-workout formulated with caffeine, beta-alanine, creatine, Nitrosigine®, and targeted botanicals to support focus, blood flow, and sustained power output, helping you train harder and perform longer.

Learn More

