



DYNAMIC

# PERFORMANCE DRINK

The Ultimate Pre & Post Workout Drink for Energy and Quick Muscle Repair & Recovery\*

**BLACKBERRY**



## Dynamic Performance Drink Supplementation

Dynamic Performance Drink is a premium pre- and post-exercise performance drink packed with essential nutrients for quick muscle repair and recovery.\*

Key benefits of Dynamic Performance Drink include:

- Promotes muscle repair and recovery\*
- Support for lean body mass\*
- Support for energy metabolism\*
- Promotes overall health and well-being\*
- Non-GMO, gluten-free, dairy-free, and MSG-free
- No added sugar or artificial preservatives

## How Dynamic Performance Drink Works

Each scoop of Dynamic Performance Drink contains a wide range of B vitamins, minerals, amino acids, BCAAs, and additional nutrients to support athletic performance, promote muscle repair, and support recovery.\*<sup>1</sup>

### Athletic Performance

After strenuous exercise, the body goes through a variety of metabolic changes including endorphin release, increased GLUT4 expression, and vasodilation of skeletal muscle. There are health and performance benefits to taking advantage of these acute responses through nutritional supplementation.\*

Creatine, betaine anhydrous, alpha-GPC, and choline may help support physical performance and muscle growth by promoting healthy adenosine triphosphate (ATP) levels in the muscles.\* Creatine also helps promote availability of ATP during high-intensity exercise resulting in muscle and energy gains.\*<sup>2,3</sup> Betaine anhydrous, alpha-GPC, and choline supplementation also support muscular gains and athletic performance by supporting healthy blood homocysteine levels and promoting energy metabolism.\*<sup>4,5,6,7,8</sup>

### Amino Acids

Amino acids are the building blocks of protein and help synthesize hormones and neurotransmitters.<sup>9</sup> Dynamic Performance Drink contains a wide range of amino acids to support healthy blood flow, protein synthesis, and many other metabolic functions that may help promote exercise performance.\*<sup>10,11</sup> Research shows that strenuous exercise may impact metabolic homeostasis and supplementation may help promote amino acid synthesis and metabolism.\*<sup>12,13</sup> Other amino acids help support cognitive function and alertness to promote muscle endurance.\*<sup>14</sup>

For more information, visit: [www.nutridyn.com](http://www.nutridyn.com)

## Branched-Chain Amino Acids

The branched-chain amino acids (BCAAs) are a collective group of three essential amino acids—L-leucine, L-isoleucine, and L-valine—that help support muscle protein synthesis.\* Clinical studies show increased protein intake may be beneficial for athletic performance since protein helps muscle growth.\*<sup>15,16,17</sup> BCAAs help support healthy protein retention.\*<sup>18</sup> Research also shows BCAA supplementation may support physical and mental fatigue, further enhancing athletic performance.\*<sup>19</sup>

## Why Use Dynamic Performance Drink?

Dynamic Performance Drink is the ideal nutritional supplement for individuals looking for a comprehensive formula to support muscle repair, reduce delayed onset muscle soreness, and help prevent muscle breakdown when taken before and after exercise.\* The delicious drink formula is a rich source of amino acids, BCAAs, vitamins, minerals, and additional nutrients to support athletic performance and promote muscle repair and recovery.\*

### References:

1. Kim, Y.-N., Hwang, J. H., & Cho, Y.-O. (2016). The effects of exercise training and acute exercise duration on plasma folate and vitamin B12. *Nutrition Research and Practice*, 10(2), 161-166.
2. Earnest, C. P., Snell, P. G., Rodriguez, R., Almada, A. L., & Mitchell, T. L. (1995). The effect of creatine monohydrate ingestion on anaerobic power indices, muscular strength and body composition. *Acta Physiologica Scandinavica*, 153(2), 207.
3. Buford, T. W., Kreider, R. B., Stout, J. R., Greenwood, M., Campbell, B., Spano, M., Ziegenfuss, T., Lopez, H., Landis, J., & Antonio, J. (2007). International Society of Sports Nutrition position stand: Creatine supplementation and exercise. *Journal of the International Society of Sports Nutrition*, 4(6).
4. Cholewa, J. M., Hudson, A., Cicholski, T., Cervenkova, A., Barreno, K., Broom, K., Barch, M., & Craig, S. A. S. (2018). The effects of chronic betaine supplementation on body composition and performance in collegiate females: A double-blind, randomized, placebo controlled trial. *Journal of the International Society of Sports Nutrition*, 15(37).
5. Cholewa, J. M., Wyszczelska-Rokiel, M., Glowacki, R., Jakubowski, H., Matthews, T., Wood, R., Craig, S. A. S., & Paolone, V. (2013). Effects of betaine on body composition, performance, and homocysteine thiolactone. *Journal of the International Society of Sports Nutrition*, 10(39).
6. Bellar, D., LeBlanc, N. R., & Campbell, B. (2015). The effect of 6 days of alpha glycerylphosphorylcholine on isometric strength. *Journal of the International Society of Sports Nutrition*, 12(42).
7. Penry, J. T., & Manore, M. M. (2008). Choline: An important micronutrient for maximal endurance-exercise performance? *International Journal of Sport Nutrition and Exercise Metabolism*, 18(2), 191-203.
8. Hongu, N., & Sachan, D. S. (2003). Carnitine and choline supplementation with exercise alter carnitine profiles, biochemical markers of fat metabolism and serum leptin concentration in healthy women. *The Journal of Nutrition*, 133(1), 84-89.
9. Brosnan, J. T., & Brosnan, M. E. (2006). The sulfur-containing amino acids: An overview. *The Journal of Nutrition*, 136(6), 1636S-1640S.
10. Sinha, S., & Goel, S. C. (2009). Effect of amino acids lysine and arginine on fracture healing in rabbits: A radiological and histomorphological analysis. *Indian Journal of Orthopaedics*, 43(4), 328-334.
11. Richard, D. M., Dawes, M. A., Mathias, C. W., Acheson, A., Hill-Kapturczak, N., & Dougherty, D. M. (2009). L-tryptophan: Basic metabolic functions, behavioral research and therapeutic indications. *International Journal of Tryptophan Research*, 2, 45-60.
12. Sureda, A., Córdova, A., Ferrer, M. D., Pérez, G., Tur, J. A., & Pons, A. (2010). L-citrulline-malate influence over branched chain amino acid utilization during exercise. *European Journal of Applied Physiology*, 110(2), 341-351.
13. Blanquaert, L., Everaert, I., & Derave, W. (2015). Beta-alanine supplementation, muscle carnosine and exercise performance. *Current Opinion in Clinical Nutrition and Metabolic Care*, 18(1), 63-70.
14. Nobre, A. C., Rao, A., & Owen, G. N. (2008). L-theanine, a natural constituent in tea, and its effect on mental state. *Asia Pacific Journal of Clinical Nutrition*, 17(1), 167-168.
15. Kato, H., Volterman, K. A., West, D. W. D., Suzuki, K., & Moore, D. R. (2018). Nutritionally non-essential amino acids are dispensable for whole-body protein synthesis after exercise in endurance athletes with an adequate essential amino acid intake. *Amino Acids*, 50(12), 1679-1684.
16. Kato, H., Suzuki, K., Bannai, M., & Moore, D. R. (2016). Protein requirements are elevated in endurance athletes after exercise as determined by the indicator amino acid oxidation method. *PLoS ONE*, 11(6).
17. Pasiakos, S. M., McClung, H. L., McClung, J. P., Margolis, L. M., Anderson, N. E., Cloutier, G. J., Pikosky, M. A., Rood, J. C., Fielding, R. A., & Young, A. J. (2011). Leucine-enriched essential amino acid supplementation during moderate steady state exercise enhances postexercise muscle protein synthesis. *The American Journal of Clinical Nutrition*, 94(3), 809-818.
18. Ispoglou, T., White, H., Preston, T., McElhone, S., McKenna, J., & Hind, K. (2016). Double-blind, placebo-controlled pilot trial of L-leucine-enriched amino acid mixtures on body composition and physical performance in men and women aged 65-75 years. *European Journal of Clinical Nutrition*, 70, 182-188.
19. Williams, M. (2005). Dietary supplements and sports performance: Amino acids. *Journal of the International Society of Sports Nutrition*, 2(63).



\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



NON-GMO



GLUTEN-FREE



DAIRY-FREE



PRODUCED IN A  
cGMP FACILITY

# Supplement Facts

Serving Size: About 1 Scoop (21 g)

Servings Per Container: About 30

Ingredients:	Amount	%DV*
Calories	10	
Total Carbohydrate	2 g	1%*
Vitamin B6 (as pyridoxal-5-phosphate)	5 mg	294%
Vitamin B12 (as methylcobalamin)	300 mcg	12,500%
Choline (as choline bitartrate)	250 mg	45%
Calcium	40 mg	3%
Iron	0.12 mg	1%
L-Citrulline Malate	3 g	**
Creatine Monohydrate	3 g	**
Beta Alanine (as CarnoSyn®)	2 g	**
L-Glutamine	1.5 g	**
L-Leucine	1.1 g	**
L-Lysine (as L-lysine HCl)	1.1 g	**
Betaine Anhydrous	1 g	**
L-Phenylalanine	600 mg	**
L-Threonine	600 mg	**
L-Isoleucine	550 mg	**
L-Valine	550 mg	**
L-Methionine	350 mg	**
L-Tryptophan	150 mg	**
Taurine	500 mg	**
Alpha-glycerolphosphorylcholine (Alpha-GPC) (alphaPrime™)	100 mg	**
Caffeine (from coffee bean extract)	50 mg	**
L-Theanine	50 mg	**

**Other Ingredients:** Inulin, Silicon Dioxide, Natural Flavors, Calcium Silicate, Beet Root Powder (color), Stevia Leaf Extract, Citric Acid.

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alphaPrime™ is a trademark of Vesta Ingredients Inc.

**Directions:** Mix 1 scoop of Dynamic Performance Drink in 8 ounces of water 30-45 minutes before workout and again immediately after workout as a dietary supplement, or as directed by your healthcare practitioner.

**Caution:** If pregnant, nursing, or taking medication, consult your healthcare practitioner before use.

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