

Watermelon Performance Hub

Evidence Notes: Performance Fueling Plate

Prepared by: Umo Callins, MS, RD, CSSD, LD, CPT

Board-Certified Sports Dietitian & Fitness Coach | In partnership with the National Watermelon Promotion Board

Brief evidence notes for the claims made in the Performance Fueling Plate handout. All nutrient values are sourced from USDA FoodData Central and current peer-reviewed literature.

Carbohydrate Fueling

1. A 2-cup serving of watermelon provides 21 grams of natural carbohydrates and approximately 8 to 10 ounces of fluid. These values are sourced from USDA FoodData Central (FDC ID: 2747675).

U.S. Department of Agriculture, Agricultural Research Service. FoodData Central. Watermelon, raw (FDC ID: 2747675). <https://fdc.nal.usda.gov/food-details/2747675/nutrients>

Watermelon as a Carbohydrate Source During Exercise

2. A randomized crossover study in recreational cyclists found that watermelon performed comparably to a standard carbohydrate sports beverage for maintaining blood glucose during prolonged exercise. Watermelon consumption was also associated with reduced post-exercise markers of muscle damage and oxidative stress.

*Shanely, R.A., Nieman, D.C., et al. (2016). Comparison of watermelon and carbohydrate beverage on exercise-induced alterations in systemic inflammation, immune dysfunction, and plasma antioxidant capacity. *Nutrients*, 8(8), 518. <https://doi.org/10.3390/nu8080518>*

Post-Workout Recovery

3. A randomized controlled trial in men undergoing endurance training found that watermelon juice consumption was associated with improved exercise performance and reduced muscle soreness compared to the control group.

*Norouzzadeh, M., et al. (2025). The effects of watermelon juice on muscle hypertrophy, exercise performance, and muscle soreness in non-athlete men undergoing endurance training. *Food Science & Nutrition*, 13(10). <https://doi.org/10.1002/fsn3.71070>*

Diet Quality

4. A cross-sectional analysis of NHANES data including over 35,000 adults and children found that watermelon consumers had significantly higher overall diet quality scores, with greater intake of potassium, magnesium, and vitamins A and C, and lower intake of added sugar and saturated fat.

*Fulgoni, K., & Fulgoni, V.L. III. (2022). Watermelon intake is associated with increased nutrient intake and higher diet quality in adults and children, NHANES 2003-2018. *Nutrients*, 14(22), 4883. <https://doi.org/10.3390/nu14224883>*