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Abstract

Exogenous Carbohydrate as an Ergogenic Aid: Recent Advances in Dose and Form and Format †

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Performance nutrition is as wide and complex topic as the number and diversity of sports available for human endeavor. Nevertheless, over 100 years of evidenced-based outcomes founded upon the science of energy-substrate metabolism provide a body of evidence providing almost certain support for the use of carbohydrate prior to and during most prolonged maximal efforts to enhance performance. This presentation will provide a summary of some of our recent research contributing to the refinements and translation of this general ergogenic theme. Topics covered will include: maximal exogenous-carbohydrate dose response; optimal fructose:glucose/maltodextrin ratio for gut comfort, oxidation rate, and performance; new data on the role of sucrose and very long-chain glucose polymers in glycogen recovery; effects of solid, gel, and drink format; training of the gut, new technologies in sports drinks- the Sub2/Maurten story, and inferences from lab vs in-competition field clinical trials.

Supplementary Material: The presentation is available online at www.mdpi.com/2504-3900/8/1/10/s1.