SUGAR: FRIEND OR FOE?



WHY CARBOHYDRATES MATTER

Carbohydrate consumption during training, practice and competition has been shown to improve endurance performance (i.e., time to complete a race) and aspects of team sport performance. The most studied team sport has been soccer, followed by basketball. Carbohydrate intake during these simulated protocols has been shown most consistently to:

- · Maintain intermittent high intensity exercise capacity
- · Impact sprinting ability, particularly late in a game
- Improve aspects of skill performance

Baker, L. et al. Nutrients. 2015, 7:5733-5763; doi:10.3390/nu7075249.

HOW MUCH: THE RIGHT AMOUNT OF CARBOHYDRATES



The appropriate amount of carbohydrate to enhance team sport performance is **30–60 grams/hour**, when the athlete is practicing or competing for 60 minutes or more.

American College of Sports Medicine, Academy of Nutrition & Dietetics, & Dietitians of Canada. Joint Position Statement: Nutrition and Athletic Performance. Med Sci Sports Exerc. 2016.

WHAT KIND OF CARBOHYDRATES

The type of carbohydrate is important. Athletes should consume mostly carbohydrates that are quickly oxidized by the muscle, which includes the **sugars glucose and sucrose**, **glucose polymer maltodextrin**, **and amylopectin**.

This is not the same as simple vs complex carbs — their physiology is important, not the chemical structure.

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SUGAR MAKES A DIFFERENCE



The sugars glucose and sucrose are the right choices for an athlete in the right amount (30-60 g/h) when consumed during an athletic occasion lasting $\geq 60 \text{ minutes}$ and performance is the goal.