

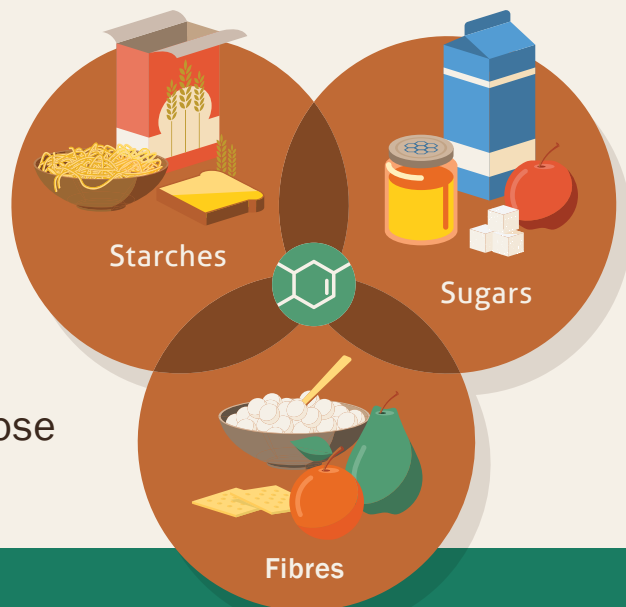
Carbohydrates and Physical Activity

Food - Fuel - Fun

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Carbohydrates can be found in both foods & beverages, in the form of starches, sugars, or fibres.

Starches and sugars contribute to the glucose supply in the body.



Carbohydrates are the most efficient fuel source for the body

During exercise, the body uses glucose from the blood and uses limited glycogen stores from the muscle and liver as fuel.

- glucose
- glycogen - storage form of glucose

Hydration with water is essential. As physical activity intensity and duration increases, consuming adequate amounts of carbohydrates is critical for optimal health and performance.

Hydrate with water



- Non-competitive activity or
- Light - moderate intensity less than 1 hour

Activities might include: walking, dancing for fun, light biking, gardening, chores

Hydrate with water and refuel with carbohydrate



- High intensity / endurance activities lasting longer than 1-1.5 hours
- Activities in hot humid conditions
- Increased perspiration

Activities might include: competitive sports, tournaments, challenging run / swim, fast cycling



High intensity and long duration activities require adequate amounts of carbohydrate, determined by body weight and the time of consumption.

Timing	Before: 2-4 hours	Before: 1-2 hours	During: 1-2.5 hours	After
Amount	A meal* with 1-4 grams of carbohydrate per kg of body weight <small>*May also include some protein and fat</small>	1-4 grams of easily digested carbohydrate per kg of body weight	30-60 grams of carbohydrate per hour with electrolytes	A meal* with 1-1.2 grams of carbohydrate per kg of body weight <small>*Including some protein and fat</small>
Sample foods	2 cups 1 cup	1 fruit 1 cup	1 bottle	1 medium bowl 1 medium plate
Carbohydrates	80 grams 40 grams	30 grams 30 grams	30 grams	80 grams 50 grams



Did you know?

Choose your favourite sports drink to hydrate and refuel, or make your own!

- Refresher:
- 2 cups water
 - 2 cups juice of choice
 - pinch of salt

Consumption During Long Physical Activity Bouts

Those exercising more than 2.5 hours could consume up to 90 grams of carbohydrates per hour with some easily digested protein

Different Fueling Strategies Work for Different People

Talking to a dietitian can help you choose foods and amounts that work for your physical activities of choice

Find activities that are fun for you, and fuel with foods and beverages as needed!



For more information, visit sugar.ca



References: Kanter. High-Quality Carbohydrates and Physical Performance: Expert Panel Report. Nutrition Today. 2018; Thomas et al. Position of the Academy of Nutrition and Dietetics, Dietitians of Canada, and the American College of Sports Medicine: nutrition and athletic performance. J Acad Nutr Diet. 2016; Sawka et al. American College of Sports Medicine position stand. Exercise and fluid replacement. Med Sci Sports Exerc. 2007.