

# Teaching Tool Download

## ENERGY FACTS



**Sweetpotato Energy Cookies**

1. Only calories (from carbohydrate, fat and protein) provide energy. Caffeine does not provide energy but can help mobilize fat stores for use.
2. A low carbohydrate, high fat diet can impair both high intensity exercise and endurance performance.<sup>1,2</sup>
3. It's a good idea to ensure high fiber, nutrient rich carbohydrates make up the bulk of an athletes' diet. However, lower fiber, easy to digest sources of carbohydrate are best before and during activity.
4. If an event is 3 to 4 hours away, there is time to digest a full meal containing up to 3 to 4 grams of carbohydrate and 0.15 to 0.25 grams of protein per kg body weight.
5. If the event is 2 hours away, the carbohydrate recommendation is reduced to 1 to 2 grams per kg body weight.<sup>3</sup>
6. If an event is early in the morning, the athlete might have only about an hour to prepare and consume a meal. The carbohydrate recommendation is then 0.5 to 1 gram per kg body weight.<sup>3,4,5</sup> In order for this meal to be well tolerated by the athlete, it should be low-fat and have low-fiber carbohydrates and perhaps a little protein, depending on the intensity and duration of the event and personal preference.
7. During endurance events or intermittent team sports lasting over an hour, it is wise to consume 30 to 60 grams of carbohydrate per hour to maintain energy. Some athletes, particularly cyclists, can consume more carbohydrate along the lines of 60 to 90 grams per hour, if they are exercising for over a few hours.
8. The goal during prolonged sporting events is to postpone fatigue through carbohydrate intake, not replace all energy used during activity. For high intensity or prolonged sporting endeavors, the body cannot replenish energy with food as fast as energy is expended.





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## References:

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