

EATING AND DRINKING DURING EXERCISE CAN HELP MAINTAIN ATHLETIC PERFORMANCE

Proper fueling during practices, and especially during games can ensure the second half is played as strong as the first. It is always important to maintain proper hydration during exercise, and fueling your body becomes important during exercise lasting longer than 45 minutes. Carbohydrates are the body's main energy source and can be consumed through solid (e.g. sports bar) or liquid sources (e.g. sports drink). They provide energy to the working muscles and prevent fatigue. Carbohydrate feeding during exercise can especially benefit athletes that have not properly fueled their body before exercise.

The amount of carbohydrates required depends on frequency, intensity, individual fitness level, and duration of event. A general recommendation is 30 grams of carbohydrates per hour for exercise lasting 1-2 hours. Too much, and digestion cannot keep up resulting in an upset stomach. Test foods during practice to see what you like and what gives you the most energy.

Where Do I Find Grams of Carbohydrates?

Look at the nutrition facts label. Total carbohydrates in grams is listed on every nutrition facts label. Carbohydrate content is indicated per serving, which might not be the entire bottle or package.



EXAMPLES OF COMPETITION FOOD

Food	Grams of Carbohydrates	Food	Grams of Carbohydrates
Medium Fruit	~25	Energy Gel (41g)	~25
Crunchy Granola Bar (42g)	~30	Energy Chews (30g)	~25
Energy Bar (e.g. Clif Bar)	~40	Sport Drink (12oz)	~20
Graham Crackers (31g)	~25	Energy Jelly Beans (28g)	~25

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HYDRATION DURING PRACTICES AND GAMES

Drinking fluids throughout practices and games is important in order to stay hydrated and maintain performance. Athletes should drink according to their sweat rate. See the Hydration for Athletes handout to learn how to calculate your sweat rate. Remember, heat and humidity can increase the amount you sweat, which means you will have to drink more to stay hydrated.

WATER OR SPORTS DRINK? *When to Choose a Sports Drink*

Water or sports drink? This is a common debate among athletes, and the answer actually depends on many different factors. Sports drinks are beverages that contain carbohydrates and electrolytes. They can be useful for replacing fluids and electrolytes as well as providing energy during exercise. Sports drinks should be 6-8% carbohydrate. Pre-bottled sports drinks generally contain this concentration. Athletes may benefit from using a sports drink instead of water during high intensity or intermittent exercise lasting longer than one hour. They may also be beneficial for athletes exercising in the heat and during extended periods of high intensity practices, such as preseason. Sports drinks are not necessary during low intensity exercise or exercise lasting less than one hour. Some athletes are unable to tolerate solid foods during exercise and sports drinks provide an alternative way to fuel the body.

Be careful not to confuse sports drinks with "energy" drinks. "Energy" drinks usually contain one or more stimulant (e.g. caffeine) and a higher carbohydrate content than sports drinks. While this may sound good, it can cause an upset stomach during exercise. Also, a lot of "energy" drinks are carbonated, which can cause stomach discomfort and interfere with athletic performance.

Some companies are now making sports drinks that contain protein, caffeine, and other ingredients. It is unclear how ingesting these products during exercise impacts athletic performance.

Electrolytes

Electrolytes are charged ions the body needs to maintain fluid balance, neural activity, and muscle contraction. They include:

- Sodium (Na)
- Chloride (Cl)
- Potassium (K)
- Calcium (Ca)
- Magnesium (Mg)

The body's concentration of electrolytes changes during exercise because they are lost in sweat. Maintaining appropriate levels of electrolytes during exercise can help prevent muscle cramps and dehydration. What makes sports drinks special is that they contain electrolytes in addition to carbohydrates. This makes them a good sport nutrition product because they help maintain hydration and electrolyte balance during exercise.

Sports drinks and gels are an easy and quick way to replace electrolytes, but electrolytes are also found naturally in foods. Wash down a small snack with water to replace fluids and electrolytes.

