



Sports Bars, Gels & Drinks: Maximize your energy for endurance sports!

Consuming sports bars, gels and/or drinks during endurance activity can help you meet your energy and fluid goals by:

- maintaining energy levels and delaying fatigue;
- preventing dehydration;
- sustaining blood glucose levels.

CAUTION: Not all sport foods are created equal. Whichever type or combination you prefer to use, follow the guidelines below to ensure you are getting the right mix of appropriate nutrients.

WHEN SHOULD I CONSUME THEM?

- Multi-day events or events that take 60 minutes or longer to complete will benefit from consuming 30 to 60 g of carbohydrates per hour.
- Ingest these products starting 15-20 min after the beginning of the activity and then at 15-20 minute intervals during the activity.

SPORTS DRINKS

- Sports drinks provide carbohydrates and electrolytes, in varying amounts between brands, but are designed specifically to replace energy (carbohydrate), sodium, potassium, and fluids lost during exercise.
- The quantity to consume will depend on sweat rate and can range between 0.3 to 2.4 litres/hr.
- High intensity exercise and/or hot humid conditions will cause greater sweat loss.
- As a guide: start consuming small amounts every 15-20 minutes with an average of least 400 to 800 ml/hr.

Guidelines for choosing sports drinks:

| | |
|---------------------|---|
| Carbohydrate | Aim for 6-8% carbohydrate (i.e. 6 to 8 g of carbohydrate/100 ml); primarily glucose, sucrose, or maltodextrin with some fructose. |
| Protein | There is insufficient evidence to recommend sports drinks containing protein or amino acids for use during endurance events. |
| Sodium | 500-700 mg/litre |
| Potassium | 80-200 mg/litre |

Sport Nutrition for Athletes and Coaches



SPORTS GELS

- Sports gels provide a highly concentrated source of carbohydrates, compared to sports drinks, and are portable as well as quickly digested (small volume).
- They should be consumed with an alternative electrolyte beverage (if no electrolytes are present in your preferred gel) or with water to meet hydration needs.



Guidelines for choosing sports gels:

- A blend of glucose and fructose is effective in increasing muscle oxidation of carbohydrates, in the amount of 65-75% or 65-75 g/100 ml (Most provide ~20-30 g/32-45 g pack).
- They may have other added nutrients such as electrolytes, amino acids, vitamins, and caffeine, or other substances claimed to enhance performance. **These are not essential for the purpose of providing a quick source of highly concentrated carbohydrate and should be tested for tolerance in specific sport situations.**

SPORTS BARS

- Sports bars provide a solid form of carbohydrate! Recent research has shown that they produce similar rates of fuel utilization to liquid forms (e.g. sports drinks) when consumed during endurance exercise.
- They vary between the amount of calories, amount and type of carbohydrate, and amount of protein and fibre provided.
- They may have other added nutrients such as vitamins/minerals or other substances claimed to enhance performance.
- Fluid needs should also be considered in order to meet complete nutrition and hydration goals.



Guidelines for choosing sports bars:

| Before or during exercise (for easy digestion): | After exercise (for recovery): |
|--|--------------------------------|
| Higher carbohydrate (>25 g) | Higher carbohydrate (>25 g) |
| Lower fibre (<4 g) | Can be higher in fibre (>4 g) |
| Lower fat (<4 g) | Can be lower fat (<4 g) |
| Lower protein (<4 g) | Higher protein (10-25 g) |