



## ‘Carbohydrate Loading’ – is it for you?

We’ve all heard about ‘carb-loading’ before a competition, but is it right for you and/or your athletes?

### What is carbohydrate loading?

Carbohydrate loading is a sports nutrition strategy that involves eating a higher than usual carbohydrate intake for 1-4 days prior to an event while tapering training. It may enhance performance by maximizing muscle carbohydrate (glycogen) stores prior to competition.

### Who is it for?

Those athletes involved in marathon running, distance cycling, triathlons, cross country skiing, long-distance swimming and other endurance activities (i.e. competing for 90 minutes or longer (non-stop) at a moderate to high intensity), are most likely to benefit.

Prolonged stop and go, high intensity team sports, such as soccer, hockey, and lacrosse are less likely to benefit from carbohydrate loading, however, in tournament settings with multiple games in a day, there is potential for benefit.

### Who is it NOT for?

Carbohydrate loading is not for everyday training and those with diabetes should not undertake this strategy without supervision.

### What are the pros and cons?

#### Pros:

- Can enhance the amount of stored carbohydrates (glycogen) in your muscle (i.e. put more fuel in your tank);
- Can allow you to exercise for a longer period without fatigue.

#### Cons:

- May result in some weight gain which can be uncomfortable come race/competition day;
- Can cause digestive upset if too much fibre is consumed.

### How to do it:

#### Step 1

Calculate your carbohydrate needs by multiplying your body weight in kg ( $\text{kg} = \text{lbs} \div 2.2$ ) by 7-12. This will give you a range of carbohydrate intake that you should strive for when carbohydrate loading.

#### Step 2

Strive to consume the targeted quantity of carbs for the 1-4 days leading up to the race/competition by using high carbohydrate foods (see examples on common high carbohydrates foods list on page 2).

#### Step 3

Lower-fibre and quick digesting carbs like fruit juices and breads may be easier to consume than heavier whole-grains at this time.

#### Step 4

Avoid foods high in fat such as fried foods, and limit high protein food such as meat, because they will fill you up and make it difficult to consume enough carbohydrates.





## Sport Nutrition

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### Common carbohydrate loading mistakes:

- Not consuming enough carbohydrates. Work with a [Registered Dietitian](#) with sport nutrition experience and/or use an online calculator to keep track of your carbohydrate intake.
- Consuming too much fibre. This can lead to bloating, gas or diarrhea on race/competition day. Contrary to healthy eating guidelines, this is one time where cutting back on fibre will make it easier to get the carbohydrates in without feeling too full. Try juices, sport drinks, white breads and pasta, jams, honey and canned fruits.
- Eating too many high fat foods. Look for low-to-moderate fat foods to ensure you have an appetite for the carbohydrates your muscles need.

### Common high carbohydrate foods: (check labels for more accurate information)

- 1 large bagel = 60g<sup>1</sup>
- 1 small banana = 15g<sup>1</sup>
- 1 cup/250mL cooked pasta = 30g<sup>1</sup>
- 1 cup/250mL fruit juice = 30g<sup>1</sup>
- ¾ cup/175mL cooked oatmeal = 15g
- 1 cup/250mL flaky unsweetened cereal = 30g<sup>1</sup>
- 1 cup/250mL cooked rice = 45g<sup>1</sup>
- 1 medium potato = 30g<sup>1</sup>
- 1 cup/250mL milk = 15g<sup>1</sup>
- 1 cup/250mL cooked corn = 30g<sup>1</sup>
- 1 cup/250mL fruit yogurt = 30-40g
- 2 cups/500mL sport drink = 30g



**“USE AN ONLINE CALCULATOR TO KEEP TRACK OF YOUR CARBOHYDRATE INTAKE.”**

#### Reference:

1. Canadian Diabetes Association, “Beyond the Basics” meal planning tool. [www.diabetes.ca](http://www.diabetes.ca)
2. AIS Sports Nutrition, “Carbohydrate Loading” last updated June 2009. © Australian Sports Commission

