Tips to meet your intake of carbohydrate and fluid during events

- Make a written nutrition plan for your event and follow it on the day
- Plan your nutrition around the event you are competing in. Make the most of opportunities to eat and drink, for example the cycling stage of a triathlon, half-time during a soccer game
- Use the same foods and fluids in practice that you plan to use in a race or event. Don't try something new on race or event day!
- Take your own food and fluids with you, especially if you are unsure of what foods and fluids the event or tournament provides
- If you know what food and fluids are available at the event, familiarise yourself with these during training
- Use devices that make food/fluid intake easier, for example camel backs, carbohydrate gel pouches and a chilly bin to store food at the event
- Refuel and rehydrate early, before fatigue sets in
- Use your stopwatch to remind you when to eat and drink.

Foods providing 30 – 60g carbohydrate*

500–1000ml sports drink (ie. Powerade/Replace)
1–2 medium bananas
10–20 jelly beans
2 cereal or muesli bars
1 sports bars
1–2 sachets carbohydrate gels
1–2 thick slices bread with jam/honey
*Amounts vary depending on brand

New Zealand Academy of Sport
SPARC's High Performance Network

FOOD DURING COMPETITION

A Sports Nutrition Handout by
NZ Academy of Sport Dietitians

Principal author: Kathryn McNaughten

For best results this handout should be delivered by a NZ Academy of Sport Nutrition Provider

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Food during competition

This handout will help you work out your nutritional requirements during competition.

Introduction

The food you eat during an event can influence how well you perform. Sweating can lead to dehydration, and decreased performance. During exercise your body uses up carbohydrate in the form of stored glycogen. The length of your event will determine whether this needs to be replaced or topped up.

Events less than 60 minutes (for example 10 km run, netball)

For events lasting 60 minutes or less, it should not be necessary to consume carbohydrate during the session. Your pre event meal should provide sufficient fuel for the event, and your recovery meal can replace all the fuel you have used.

Fluids are important in these events. A small degree of dehydration can have a large effect on performance. Fluid must be replaced as soon as possible after starting exercise. Water is usually adequate. However, sports drinks (or alternatively cordial and flat soft drinks) may be used. Many athletes like the taste of sports drinks better than water, so this may encourage fluid intake. Cordials and soft drinks need to be diluted to the same concentration as a sports drink to help them empty faster from the stomach.

If you are doing several bouts of exercise in one day (soccer tournament, athletics meet) it is important to ensure that you refuel adequately with fluids and carbohydrate between events.

If you have less than 1 hour between events replace carbohydrate with a sports drink. If more time is available, try high carbohydrate foods such as sandwiches, filled rolls, fruit buns, flavoured milk, yoghurt, cereal bars, creamed rice or crackers and include some protein also.

Events of 60–90 minutes (for example rugby/rugby league/soccer) or Events longer than 90 minutes (for example road cycling, Olympic distance triathlon, tennis)

Fluids and carbohydrate are essential when competing for this length of time. After 90 minutes your supply of carbohydrate (glycogen) will be close to depleted, so extra carbohydrate is necessary. Some athletes, who perform very high intensity exercise, use up carbohydrate stores rapidly and may need to top up their carbohydrate stores within the 60 to 90 minutes of exercise (ie. half time).

Carbohydrate provides extra fuel to muscles, spares muscle glycogen and delays fatigue. Carbohydrate also helps to keep blood sugar levels normal during moderate to high intensity exercise.

30–60g of carbohydrates per hour should be consumed in an endurance event to delay fatigue

Carbohydrate intake should start before the onset of fatigue, and is best taken in small amounts over the duration of the event. The carbohydrate used should be emptied quickly from the stomach and should not cause stomach problems. It will also depend on the event and the individual athlete.

It is important to choose carbohydrate in a form that suits your event and that you feel comfortable eating.

Sports drinks have the advantage of providing carbohydrate, fluid and sodium. Sodium works to enhance the absorption of carbohydrate (as glucose) and water from the intestines. A sports drink with 4–8% carbohydrate and 500–700mg/L sodium is recommended. Solid foods provide variety and are particularly useful in longer events.