

Triathlon

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About the sport

Triathlon combines the three disciplines of swimming, cycling and running into one. In Australia, competition typically starts around late October and continues through until April. While race distances can vary greatly, these can usually be classified into sprint distance (750m swim, 20km bike, 5km run), Olympic distance (1.5km swim, 40km bike, 10km run), half Ironman or 70.3 (1.9 km swim, 90km bike, 21.1km run) and Ironman races (3.8km swim, 180km bike, 42.2 km run). Races are open to elite as well as age group competitors, with shorter races organised for kids.

The type of training undertaken varies according to the level of experience of the athlete, the time of year, and the event. Typical sessions include long aerobic workouts (i.e. 100km cycle) to speed/interval sessions (i.e. track running or heart rate swim sets). Triathletes participating in long course racing focus more on aerobic type sessions and face unique nutrition challenges in both training and racing compared with short course triathletes. As a result of these differences this fact sheet will focus on the specific nutrition requirements for triathletes competing in races up to Olympic distance. Nutrition requirements for long course (70.3, ½ Ironman and Ironman races) triathletes are discussed in the AIS nutrition department fact sheet www.ais.org.au/nutrition.

Training Diet

Training for three separate disciplines can take up a lot of time and can put a large strain on an athlete's energy reserves. As most triathletes train five to seven days a week, often twice a day, it is important that they adopt eating strategies that promote recovery and maximise energy stores between training sessions. This can be achieved by following a varied diet that provides:

- Sufficient carbohydrate (CHO) to balance daily fuel needs
- Adequate protein to meet daily needs and assist muscular repair following exercise
- A variety of fruits and vegetables to promote intake of vitamins and minerals.

For a triathlete, finding the time to prepare and eat well planned meals and snacks can be almost as demanding as the training itself. A useful strategy is to have a supply of easily portable nutrient rich snacks to store in your training bag, car or office to meet additional energy needs (e.g. Sustagen tetra pack, fruit - fresh or tinned, muesli/breakfast bars, and yoghurt) for training and competition. Keeping some of your favourite breakfast cereal at the office is also a good idea, especially if you have to go straight from the pool or from your morning ride to work.

The benefit of having a snack before training or consuming carbohydrate during the training session will be influenced by the goal of the session. Including a pre-training snack is important if it is a quality workout.

For instance, if you are undertaking a heart rate swim set in the morning, including a pre-training snack or consuming carbohydrate during the session (in the form of a sports drink) is likely to benefit training performance and ultimately your training outcome.

It may be relatively simple to tolerate solid food before going cycling (e.g. banana, toast and jam); however you may struggle to tolerate food before swimming or running. In this situation a useful option may be to include a liquid meal supplement (i.e. Sustagen Sport) before the session or alternatively a sports drink (i.e. Gatorade) during the session.

Stop Press! The facts on carbohydrates

Carbohydrate has received its fair share of bad press. Despite these messages being targeted towards the general public, some endurance athletes have adopted “low carbohydrate” eating strategies. The truth of the matter is that your daily carbohydrate intake should reflect your daily activity/exercise load. On a high activity day additional carbohydrate should be included to meet increased carbohydrate demands, whereas on an easy day or rest day, carbohydrate intake should be reduced. In order to manipulate daily carbohydrate intake it is imperative for you to know which foods provide carbohydrate and when these foods should be included relative to daily training. A Sports Dietitian experienced in endurance sports is well positioned to advise triathletes about planning their daily carbohydrate intake to optimize their response to training.

Fluid needs

The fluid needs of triathletes are high, especially when training in the summer months. For strategies on how to meet fluid requirements while swimming and riding, refer to the sections on [Swimming](#) and [Road Cycling](#).

On long training runs, make use of drinking fountains, or if there are none available, carry your own drink bottle.

Ensure easy access to a drink bottle during the recovery in your sprint/interval sessions.

It may be useful to weigh yourself both before and after training to assess your fluid balance in training and competition. A loss of 1kg reflects a fluid loss of 1L. You should aim to keep your fluid losses to less than one kilogram over an exercise session.

To fully rehydrate from a fluid deficit incurred during exercise, you will need to drink one and half times your fluid loss during the recovery period following the session. For more information see [Fluids in Sport](#). During the day, aim to consume adequate fluids, especially if training twice daily. Water should be your first choice fluid.

Although other fluids such as fruit juice, sports drinks, cordial and soft drink will add to your fluid intake, use these sparingly. Your priority should be to have easy access to fluids during the day, which is not always easy when you have a busy schedule of training and work.

What should I eat and drink before competition?

The aim of the pre-event meal is to top up liver glycogen stores. As most triathlon races are held early morning, you should aim to have a pre-event meal containing 1-2g of carbohydrate per kg body weight, 2-2½ hours before the race. Examples of pre-event meals providing approximately this amount of carbohydrate are:

- 1 English muffin + 1 tbsp of jam/honey on each + 400-600ml Gatorade
- 2 medium pancakes + tbsp of honey + Sustagen Sport or Up N Go
- 1 cup of cooked porridge + honey + banana + 400-600ml of Gatorade
- 2 slices of raisin toast + 400-600ml of Gatorade
- Banana and honey sandwich, +/- Powerbar and 400-600ml Gatorade
- ~ 1-1½ cups of breakfast cereal + banana, 200ml low fat milk and 400-600ml Gatorade

Aim to consume 400-600ml of fluid with the pre-event meal to ensure adequate hydration status before the event. Having a sports drink is a useful way of meeting your pre-event carbohydrate and fluid needs simultaneously. In situations where fluid losses are likely to be high, 10-15 minutes before the start of the swim, consume 200-300ml of sports drink or water (or combination of both) to help promote gastric emptying during the race. See the SDA fact sheet on [Eating and Drinking Before Sport](#) for more information.

Make sure the pre-event meal is one that you have practiced in training. Race morning is not the best time to try anything new. The pre-event meal will take on increasing importance the longer race being attempted. For Olympic distance races, a carbohydrate loading strategy may also be beneficial. For advice on this, [consult a Sports Dietitian](#).

What should I eat and drink during competition?

During Olympic distance and sprint distance triathlon racing, recommended carbohydrate guidelines suggest athletes consume between 30-60g of carbohydrate per hour. This can be achieved through a combination of sports drinks, carbohydrate gels and through solid forms of carbohydrate e.g. Powerbar or muesli bars. Whichever you choose, make sure you practice this in training to avoid any unwanted surprises during the race.

Liquid and gel forms of carbohydrate offer a more practical solution to consuming carbohydrate during Olympic distance and sprint distance triathlon racing than solid foods, given the intensity of racing and the brevity of the event.

Consuming a sports drink during a triathlon simultaneously provides fluid and carbohydrate. In Olympic distance racing a useful strategy is to use a sports drink in one drink bottle and water in the other. Using two drink bottles is particularly important on hot and/or humid days, when fluid requirements are increased. (See [Eating and Drinking During and After Sport](#)). For most, starting with 300-600ml of sports drink and a similar amount of water should be adequate. Regardless of the conditions, always aim to consume a minimum amount of sports drink, say 300-400ml. In addition to this, vary the amount of fluid to reflect the environmental conditions. On warm days, you may consume an additional 400-600ml of water, whereas in cooler conditions, you may only consume an additional 100-300ml of water.

Carbohydrate gels contain between 20-30g depending on the brand. There is wide range of flavours available, with brands varying markedly in viscosity. As they are a very concentrated form of carbohydrates, make sure you consume adequate water (~100-150ml) with them, to help avoid any gastrointestinal upset.

On the run, aim to grab water or sports drink in the cups provided at each of the drink stations. If you find this difficult, you may wish to carry a small water bottle with you. At no point should you drink more than your sweat losses during exercise. In longer triathlon events, this can happen, more so for slower athletes contesting events in cool conditions.

What about recovery?

After a race, your priorities are to replace fluid lost through sweat, replenish muscle glycogen stores and assist muscle repair. Fluids are typically best tolerated first-up following the race. A mix of water and sports drink will assist fluid replacement as well as provide a source of carbohydrate.

To assist replenishment of muscle carbohydrate stores, foods such as fruit, muesli/sports bars or a sandwich are generally well tolerated. While race organisers will usually provide some drinks, fruit and small snacks for competitors after the race, you can never guarantee that they will have what you need, so plan ahead.

If you have to travel and there is likely a long delay to your next meal, options such as liquid meal supplements (i.e. Sustagen Sport), milk drinks, nutritious sandwiches and yoghurts are all good examples of carbohydrate containing foods that provide a significant source of protein. These options are usually well tolerated 1-2 hours after the event has finished.

Other Nutrition Tips

- With such a wide range of gels, sports drinks and commercial sports bars on the market, it is important to find products that agree with you and meet your individual needs.
- In training, practice drinking and eating strategies you plan to adopt during the race. In doing this, identify those sessions that most simulate the race situation e.g. combination (brick) session.

How to get involved

For more information on triathlon and how to get involved, visit the Triathlon Australia website at www.triathlon.org.au which has links to all state and territory associations and many triathlon clubs.

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