



SAILING

November 2008

About Sailing

The sport of sailing is all about manipulating and controlling a sailing vessel in different wind and sea conditions, which requires both physical agility and skill. Traditionally, sailors have focused upon vessel weight issues, structural components (sails/rigging) and the skills of the crew for performance. Only recently has there been a shift towards the benefits of sports nutrition. Daily training sessions can be gruelling and proper nutritional strategies can help to maximise recovery and training adaptations. Predominately a summer recreational activity, sailing in Australia gains much of its exposure from the annual Sydney Hobart Yacht Race, covering in excess of 630 nautical miles (1,170 km) which is an off-shore sailing event, where crew numbers can range from 1 to 17 people and involve legs lasting from a few days to several weeks duration. There is also “off the beach” dinghy racing (e.g. Olympic class sailing) in boats crewed by between one and three people, where participants can spend most daylight hours on water and compete in races generally lasting 30 to 120 minutes each.

Competition & training schedules

In competition, the lengths of races vary, ranging from hours, days, and months at a time for long-distance events. The physical demands of sailing vary with boat class, crew position and weather conditions. The ideal body type for sailing is complex, as height and minimum crew weights for some types of boats are an important factor, but generally lower bodyweight and body fat levels can be advantageous in light wings and smaller vessels.

Sailing training for elite Olympic Class sailors totals approximately 15 to 20 hours per week and consists of strength training/circuit training, flexibility sessions, aerobic endurance training and on-water conditioning sessions. For club level athletes, this is about 9 to 10 hours per week. Offshore training can be up to 8½ hours per day either training or doing boat activities with about 1 hour of high-intensity gym training and 3 hours of active sailing per day.

Training diet

Sailing is an endurance sport and as a result both off-shore and dinghy sailors need a training diet that is high in both energy and carbohydrate in order to support busy training schedules. Carbohydrate foods, such as bread, pasta, rice and starchy veggies need to be included in main meals and frequent carbohydrate-rich snacks such as bananas, sports drinks, vegemite sandwiches or muesli bars before and after training sessions are a great way to top up energy stores and improve recovery. When recovery time between sessions is short, snacks such as Sustagen Sport®, yoghurt, cheese and vegemite or peanut butter sandwiches that are high in both protein and carbohydrate can be helpful post-training to maximise replenishment of energy stores in the muscle.

It may be beneficial for some to carbohydrate load in the 24 to 48 hours leading up to an event if their event is particularly strenuous, is longer than 90 minutes duration, is over consecutive days, or if there are minimal opportunities to refuel during/between events.

It is difficult to repeat carbohydrate loading in continuous events so it may not be suitable in off-shore sailing. Contact a sports dietitian for individual advice if considering carbohydrate loading.

Fluid Needs

Although surrounded by water, dehydration is commonplace in sailing sports as events are mostly held during the warmer months. Coupled with the issue of sailors not wanting to urinate out on the water, nor wanting to carry extra weight in water bottles, dehydration becomes a problem and can impair training goals and performance during competition. Sailors should aim to begin every sailing session well hydrated and have a drinking plan in place to avoid the consequences of dehydration. See [Fluids in Sport](#) for more information but here are some tips below:

- **Begin hydrated:** a “bolus” of 500ml sports drink 30min before a race primes the stomach pre-race
- **Drink early** into competition (~100ml every 15min), before the start, between “back to back” races and on downwind legs where opportunities are greatest
- Ensure **fluids are easy to access** (important during rough weather conditions), consider a hands-free option like a camel-back
- Sports drink powder, concentrated juices and undiluted cordial **minimise weight** of supplies and can later be diluted to form suitable fluids
- **Rehydrate between events** if multiple races;
- **Weigh yourself** before and after events/training to get a feel for your usual fluid losses and to know how much fluid to replace post-competition. Aim to replace losses by 150% e.g. 2kg BW lost = 3L fluid to be replaced in the following 3 to 4 hours post-competition;
- **Use your urine colour** as an indicator of hydration
- **Avoid caffeine and alcohol** prior to and immediately following competition.

What should I eat pre-event?

The meal before an event is the last opportunity to “fill the tank”. Carbohydrate and fluid are the main focus before competition to meet energy and hydration goals.

The pre-event meal should be eaten within one to four hours leading up to the event and should be rich in carbohydrate to fire on all cylinders! These carbohydrate foods should also be low in fat and fibre as both fat and fibre slow gastric emptying and can lead to stomach discomfort pre-event. Some examples include white bread/toast with jam/honey and banana, tinned spaghetti on toast, or a low-fat fruit smoothie. Fluid (e.g. water, sports drinks, cordial) must accompany the pre-event meal and must be included in the lead up to the event.

What should I eat/drink during competition?

OFF-SHORE SAILING EVENTS:

During off-shore sailing events, the length of the event and weight of supplies are important to consider, as are the nutritional content of the supplies taken on board. Food supplies need to provide carbohydrate, protein, fluids, as well as total calories (as they can be greater than 15MJ/day) and must also be of high nutritional quality (e.g. contain other nutrients like iron, calcium, vitamin C, omega-3 oils, etc). The foods below are ideal examples as they are low-weight nutritious options:

- dehydrated meals e.g. low fat 2 minute noodles, flavoured rice/pasta side dishes
- canned meals e.g. tinned spaghetti, baked beans, reduced fat corned beef/ Stagg® chili beef
- snack packs of dried fruit
- canned fruit
- spreads e.g. Vegemite, jam, honey
- dried biscuits, crackers or rice cakes

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- foil sachets of tuna or salmon
- long-life cheese (e.g. cheese-sticks)
- long-life (UHT) low fat milk
- powdered desserts e.g. mousse/custard
- powdered liquid meal supplements
- sports drinks/powders
- juice concentrate
- undiluted cordial

Over the course of a day, this may look like:

Breakfast

1 to 2 sachets of instant porridge + canned fruit + milk

2 pieces whole meal toast with vegemite

Orange juice

Lunch

2 sandwiches with tuna + canned corn

Canned fruit /dried fruit

Milo® with low-fat milk

Dinner

Flavoured instant rice or 2-minute noodles (note: not all offshore boats would allow boiling water)

Canned beef, beans and chili

Custard with canned fruit

Snacks

Sports drinks, canned fruit, muesli bars, lollies, crackers with cheese, Sustagen Sport® + low-fat milk, custard, cordial.

DINGHY SAILING:

Carbohydrate can be a major limiting factor when competing in multi-day regattas. Aim for a carbohydrate-containing fluid or snack every hour, e.g. a sports gel, 600ml sports drink, a vegemite/jam sandwich (ready-made in a snap-lock bag) or handful of lollies – and ensure that you keep these handy!

Make cold, flavoured sports drinks easy to access and sometimes sports products (e.g. sports gels/bars) can be convenient options. Remember to secure them to the boat so they can't fall out during rough weather or a capsized.

What about Recovery?

For multi-stage off-shore sailing events, the recovery period is usually a stopover. Maximise this opportunity to eat larger portions of carbohydrate- and protein-containing foods, such as pasta with bolognese sauce, meat with bread, potatoes and vegetables, or a chicken/meat and rice dish. Sports drinks, fruit, muesli bars, sports bars and honey or jam sandwiches are good snacks to eat immediately after docking the boat and in the time leading up to a "proper" meal, which should follow two to three hours after finishing the race/stopping for the day. The same applies to dinghy sailing regattas – a recovery snack within the first 30 minutes of finishing the race, and a follow-up meal within two to three hours post-race. Remember, recovery foods need to be quick and easy so they don't take a backseat to boat preparation and showers.

Other nutrition tips

Emergency Rations: Unpredictable weather conditions, especially in offshore events can take much longer than expected if the weather is not optimal. Ensure that emergency rations are considered for these conditions.

Alcohol: There is an established culture of alcohol and sailing. Excess consumption can impair recovery and rehydration and can indirectly (or directly) impact on individual performance. So moderate intake.

Water: can be made onboard on offshore boats via desalination. It can be life threatening if these machines breakdown, so carry emergency fluid also.

Motion sickness: Good hydration strategies, avoiding caffeine and medications can help to manage this problem.

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